Revitalizing Marxist Theory for Today's Capitalism

“Financial” vs. “Real”: An Overview of the Contradictory Role of Finance

Özgür Orhangazi

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ABSTRACT

This chapter discusses the contradictory role and place of finance within the post-1980 US economy. A central argument advanced is that the relationship between the real and financial sides of the economy has become increasingly more complicated and contradictory. Therefore, the distinction made between "real" and "financial" problems of the economy needs to be better qualified by taking into account the dynamics between the two. The contradictory relationship is analyzed through a discussion of finance in relation to labor and households, nonfinancial corporations, speculative asset bubbles, and global imbalances. This analysis shows that finance has been in a contradictory unity with the rest of the economy. It has contributed to some of the problems in the economy, while providing solutions to them at other instances; and in the process it shaped and in turn was shaped by the rest of the economy.

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INTRODUCTION

There is no question that the size and significance of finance – financial markets, institutions, and activities – have considerably increased since the 1980s. The financial crisis of the late 2000s and the ensuing global economic slowdown attracted much attention to this phenomenon, now commonly referred to as financialization, and brought renewed interest in the role and place of finance in the economy. The general outlines of the crisis are well known. A housing bubble developed from the 1990s into mid-2000s in the United States. As the housing prices climbed, banks underwrote mortgages and sold them to financial investors in the capital markets through mortgage-based securities and collateralized debt obligations (CDOs), in a process known as securitization. The increase in housing prices came to a halt around 2006 and a financial crisis was triggered by delinquencies in securitized mortgages. The financial system came to a standstill and the US economy entered into a recession followed by financial problems and economic slowdown in other economies. Governments around the world, fearing a systemic collapse, rushed to bailout the failing financial institutions, provided liquidity to the financial markets and attempted to counter the recession through massive bailouts and spending programs.

The crisis and the ensuing global economic slowdown were soon being compared to the Great Depression of the 1930s. For example, Reinhart and Rogoff (2009), in their sweeping study of the financial crises, characterized this one as "the most serious global financial crisis since the Great Depression" and argued that it has been a "transformative movement in global economic history whose ultimate resolution will likely reshape politics and economics for at least a generation" (p. 208). The explanations of the crisis produced by mainstream economists and policy makers were centered on the idea that it was a "black swan" phenomenon – a "once in a century," rare and completely unpredictable event. Roubini and Mihm (2010) and Reinhart and Rogoff (2009) pointed out, on the contrary, that the crisis was a "white swan" phenomenon in the sense that it was an ordinary and predictable process with many similar instances in the past.[1]

On the contrary, heterodox explanations of the crisis sought to analyze the structural causes. Both the growing literature on the crisis and the literature on financialization generally start from a distinction between two parts of the economy, the real and financial sides. It is widely argued that the crisis was a result of essentially financial problems arising due to the lack of proper regulation in the financial markets. The emphasis is on the deregulation of finance and the financial part is depicted as a negative force impinging on the real economy. Some arguments portrayed finance as damaging the real side of the economy and put the blame on lack of regulation (e.g., Kregel, 2007, 2008; Krugman, 2009; Whalen, 2007; Wray, 2007, 2009). In its very general form, causation ran from deregulation to the rise of rentier, financial fragility and crisis, where policy mistakes or misguided policies led to the uncontrolled expansion of finance and speculation and ineffective regulation coupled with greedy financiers led to markets getting out of control.

This approach is certainly useful in discussing important aspects of the financialization process and the developments that led to the crisis. However, with its almost exclusive focus on financial factors it misses how finance was related to the rest of the economy in many contradictory ways. *In this chapter, I discuss the contradictory role and place of the financial side with respect to the nonfinancial side in the post-1980 US economy and suggest that instead of drawing one-way causations, understanding the contradictions of financialization would help develop the Marxian theory of finance as well as improve our understanding of the current structure and likely future path(s) of the system.* However, one should be careful in pursuing such an analysis. A number of Marxian authors, writing against the exclusive focus on financial problems, presented the rise of the finance and the ensuing crisis as simply a product of the problems in the real economy. While there are different shades of this argument, broadly they share the view that the "roots" of financialization and hence the crisis must be found in production. Accordingly, capitalism entered into a crisis in the 1970s from which it has not quite recovered and financialization was a direct response to this crisis. An example of this line of analysis can be found in the writings of the authors affiliated with the "Monopoly Capital" tradition, which broadly argues that production stagnated as increasing surplus could not be profitably employed and capital was redirected to circulation and speculation. That is, capital sought to confront its profitability problems by seeking financial profits. This argument is in a way similar to Arrighi's (1994) argument that presents financialization largely occurring as a response to an exhaustion of profitable investment opportunities in the real sector due to increased competition in product markets.[2] For instance, Foster and Magdoff (2009) argued that the "slowdown or stagnation has now persisted for four decades, and has only gotten worse over time" (p. 15). Others, such as Harman (2010) and Callinicos (2010), recently argued that the expansion credit managed to create a period of prosperity but its decline led to the bursting of the underlying crisis. Callinicos (2010) described the post-1980 era as a period of "long-term crisis of over-accumulation and profitability" (p. 50).

Against this background, a central argument I advance here is that the relationship between the real and financial sides of the economy has become increasingly more complicated and contradictory. Therefore, the distinction made between real and financial problems of the economy needs to be better qualified by taking into account the dynamics between the two. Simplifications that see the rise of finance as some external force acting on the economy are not useful as they tend to ignore problems originating in the rest of the economy and cannot give a full account of how finance grew so much and how it is related to the rest of the economy in many different ways. Similarly, depicting financialization simply as a response to the problems in the real economy amounts to an oversimplification as well.[3] *Finance was shaped by and in turn shaped the rest of the economy and in this process played a contradictory role by sometimes providing solutions to the problems in the economy while at other times contributing to their creation or exacerbation.*[4]

In fact, attributing such a contradictory role to finance is not new.[5] Although textbook economics presents finance simply as serving the needs of the economy and enhancing its efficiency, Marxian and Keynesian approaches traditionally ascribe a contradictory role to finance, one in which finance is both a significant accelerator of growth and a source of fragility and instability. *An appreciation of this contradictory role of finance in the economy in general and in the current era would give us a different vantage point to look at both the financial crisis and the viability of the solutions proposed in this regard as well as contribute to the discussions on the future path of the economy*. The rest of the article is organized as follows. In the next section, I briefly review the theoretical approaches to the role of finance in the economy and highlight the dual role assigned to finance by both Marxian and Keynesian approaches. Afterwards, I discuss the rise of finance and relate this rise to the four structural problems of the post-1980 era: increased household debt, profitability and excess capacity issues in the nonfinancial corporate sector, speculative asset bubbles, and global imbalances. The last section briefly concludes the analysis.

ROLE OF FINANCE IN ECONOMIC THEORY

While standard economic and financial theory essentially presents finance as simply serving the needs of the economy and improving its efficiency, Marxian and Keynesian theories developed more nuanced approaches to the role and place of finance in the economy.[6] In mainstream economic theory, financial markets and institutions provide essential services needed by the rest of the economy. Their fundamental role is to mobilize and pool together savings and guide their investment. The basic task of finance is to bring savers and borrowers together, while helping manage the risk in the economy through diversification, insurance and hedging. Furthermore, by processing and disseminating information possessed by various agents in the economy, the financial markets provide services of screening and monitoring, risk management, and liquidity provision. Prices of financial assets are always supposed to reflect the fundamental values of the real economy. In its strongest form, expressed through the efficient markets hypothesis, financial markets need little regulation. Financial markets, especially the stock market, ensure that nonfinancial firms are efficient in their allocation of capital and investments, and by encouraging efficiency and profitability the financial markets benefit the whole economy (Pilbeam, 1998).[7] Toporowski (2000) summarizes this conventional view as follows:

> …the capital markets supply "factor services" to the real economy, i.e. they collect up the savings of households and advance them to entrepreneurs as capital, in return for which entrepreneurs pay out of the operating profits of their companies dividends and interest to households in proportion to the capital advanced and the "riskiness" of the enterprise. An equilibrium is supposed to be achieved between the demand of entrepreneurs for finance and its supply by rentiers (holders of financial wealth) by some explicit, or implicit, auction of the finance available, in accordance with the market principles of supply and demand. (p. 22)

In Keynesian theory finance plays a dual role. In broad terms, investment spending is the main force in the economy, and higher investment levels are encouraged by a financially robust environment. Financial robustness involves low levels of debt, low interest rates, and liquid conditions for corporations and households. An increase in investment leads to an increase in profits, which then creates expectations of future increased profits and leads to further increases in investment. Therefore, once investment spending picks up, its increase could be self-enforcing. Meanwhile, increased investment and profits would increase the confidence level in the economy, which then could cause a decline in liquidity preferences and lead to more risk-taking behavior. Banks would begin to make more and riskier loans, while tapping increasingly expensive and volatile sources of funds to finance these loans. Eventually, the debt ratios rise, interest coverage ratios fall and the interest rates begin to increase, leading to financial fragility, which implies that in the face of an unexpected economic downturn the corporations and households will be less likely to be able to meet their payment obligations. For example, an increase in the interest rates could cause a decline in investment spending, and this decline would be amplified by the financial markets. Lower investment would lead to lower aggregate demand, lower sales, and lower profits. If this leads to a forced sale of illiquid assets to meet payment obligations, it could then be followed by a sharp decline in the asset prices, which in turn would make investment less attractive and cause further decline in the aforementioned variables.

Furthermore, financial speculation creates euphoria, and an initial increase in asset prices can lead to expectations of further increases in the future. These expectations could create more demand for these assets, hence validating themselves by an actual increase in the price due to increased demand. The euphoria could, at the same time, lead to an underestimation of the risks associated with the assets and lead to bubbles. Such bubbles in the financial markets would have significant implications for the real economy as well. They could lead to increased consumption due to an improvement in the net worth of asset holders as well as cause an increase in investment expenditures, hence leading to an increase in the aggregate demand and output to a point which would otherwise not be possible to attain.

Turning to Marxian theory, a central argument is that capitalism is inherently unstable and periodically runs into crisis. The driving force of the system is the accumulation of capital, but accumulation systematically creates contradictions which result in crises. The sources of instability can be found in different parts of the accumulation process. In very broad terms, accumulation is composed of three stages. The first one involves the purchase of labor, capital and other inputs, the second one the production process and the third one the sale of products. Money capital is invested at the beginning with the expectation that at the end a profit is going to be realized. Hence, the accumulation process depends on the rate of profit, which in turn depends on the conditions in these three stages. Problems at any point could have destabilizing effects for the whole system. In fact, a rich literature exists on Marxian crisis theories, and various scholars pointed out potential problems at different stages of the process.[8] In the first stage, conditions of the labor market could generate dynamics of instability. A decline in the rate of unemployment and/or increased bargaining power of labor could increase wages and/or reduce labor discipline at the workplace. If the growth of wages exceeds the productivity growth, this would lead to a decline in the share and rate of profit which could then lead to a decline in the speed of accumulation. In the second stage, the organization of production, choice of technology, supervision of the labor process, and labor productivity are potential determinants of the pace of accumulation. For example, the competition between different firms leads them to choose the most efficient technology but when every firm follows the same route, an increase in their capital outlays with respect to variable capital outlays would lead to a decline in the profitability. Labor saving technical change would increase the capital–labor ratio and hence create a tendency for a secular fall in the rate of profit. Finally, in the third stage, the level and composition of the demand and the distribution of income among classes are important factors that would affect profitability and accumulation. For example, a high unemployment rate and/or low wages could increase profitability but at the same time could create a demand shortfall for the produced commodities or a disproportionality among the supply and demand of different sectors, which would lead to a failure of realization of the sales and hence the profits.

While earlier Marxian theories somehow downplayed the role of finance in their analysis and placed the production process at the center of their analysis, with the exception of Hilferding's (1910) *Finance Capital*,[9] there has been a renewed interest in the role of finance within capitalism in Marxian analysis. Marxian theory presents a complex relationship between the real and the financial sides of the economy.[10] Marx analyzed how industrial capital promotes and necessitates the emergence of financial capital and institutions and in turn how the financial system supports capitalist accumulation. Financial institutions support accumulation by mobilizing large amounts of money capital and in return receive a cut out of the surplus generated in production. While finance in general meets the requirements of capital accumulation, it can create problems for accumulation and even assume a destructive role toward accumulation, where causation between the real and the financial runs both ways and through several dimensions. Hence, the relationship between the financial and the real is presented as a contradictory unity where finance provides the necessary means for accumulation but also contributes to periodic disturbances in the economy, which can originate either in the financial or in the real side of the economy and be exacerbated by finance as well. An important point is that finance plays a dual role by sustaining the accumulation of capital and at the same time undermining it. Finance capital is both an important and dominating accelerator of the growth process and a destabilizer. The credit system allows the accumulation process to take place at a faster pace and on an expanded scale that otherwise would not be attainable. When the conditions are favorable and investment expands rapidly, the resulting increase in confidence levels leads firms to make use of greater amounts of credit while the creditors make more loans, some of which are increasingly riskier. The pace and the scale of the expansion then depend on the amount of financial capital thrown into the expansion. However, these expansions prepare their own ends as they endogenously produce either financial or real problems within the economy. It is also possible that

> adverse economic developments which might cause only a mild and temporary hesitation in an ongoing expansion in the absence of an oversensitive financial environment can generate a crisis and collapse in its presence. Moreover, semiautonomous disturbances in the financial sector can themselves initiate a crisis if the system is oversensitive. And an overextended, oversensitive financial system can turn what might have been a mild downturn into a financial panic and depression. (Crotty, 1986)

In short, we observe a similar dual role for finance in both the Keynesian and the Marxian approaches. Finance is both a significant accelerator and a major source of instability in capitalist economies. The contradictory effect of finance on the rest of the economy is mainly through its impact on the investment behavior of nonfinancial corporations. Below, I argue that while this effect is still at work, there are various other ways through which finance shapes and in turn is shaped by the real economy.

FINANCE IN THE MODERN ECONOMY

From "Golden Age" to Neoliberalism

The Great Depression of the 1930s led to the dominance of a certain variant of the Keynesian ideas in the post-second-world-war era, and there emerged in the United States a highly regulated system with the central features of regulating finance to prevent financial instability and involving state in demand generation and using Keynesian policy tools to tackle instability. Heavy infrastructural investment, welfare state, redistributive taxation, regulation of business, active state involvement in key industries, and provision of public goods by the state together with strong trade unions were major elements of this system. Oligopolistic markets coupled with weak foreign competition made this comprehensive macroeconomic management of the economy by the government relatively easier. Finance was heavily regulated and put in the service of the accumulation agenda of the era with the task of providing a reliable input into the production and investment process. It would serve the needs of productive capital, and a supportive framework was put in place by the regulations that brought together the Federal Reserve, large banks and the large industrial capitalists (Orhangazi, 2008a, pp. 28–30).

This configuration ran into a serious crisis in the 1970s with a stagnating economy, rising inflation, bankruptcies and the collapse of the Bretton-Woods international financial system. As depicted in Fig. 1, the rate of profit in the nonfinancial corporate sector showed a significant decline.[11] This decline in the profitability and the concomitant problems created the dynamics that led to the dismantling of the regulatory framework of the era. Two of them were central in determining the path of economic development in the following decades: the corporations' attempts to recover profitability and the rise of finance in a gradually deregulated financial system.

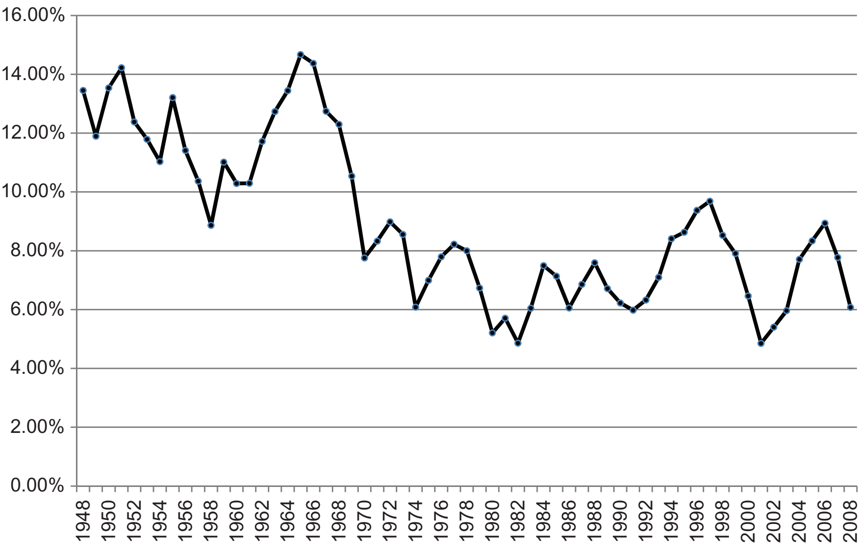

Fig. 1. Nonfinancial Corporations' Before-Tax Profit Rate (1948–2008). *Source:* US Bureau of Economic Analysis, 2010, Tables 6.1 and 6.16. *Note:* The rate of profit is defined as nonfinancial corporate profits – with inventory valuation and capital consumption adjustments – as a percentage of net stock of private fixed assets.

The attempts to recover profitability included breaking up labor's power with the help of anti-labor policies and globally relocating production to low-cost sites. This process was accompanied by intensified international competition among large corporations. As the regulations were declared inefficient and the Keynesian regime of accumulation was dismantled, trade and finance were liberalized in a process where privatization and deregulation became the policy principles. In the 1970s, the collapse of the Bretton-Woods framework and high rates of inflation triggered a series of innovations that paved the way for the more complicated ones in the coming decades. The rise of institutional investors such as the pension funds and investment funds contributed to the shift in the balance of power in corporations from managers to financial markets and caused significant changes in corporate governance. In short, a new economic model emerged in which the regulations of the earlier era were gradually removed and initiatives to solve the profitability crisis and establish a new financial order were put in place. While this new set up aimed to solve some of the problems faced, such as the low profitability problem by squeezing labor, relocating production, and increasing after-tax profitability through tax cuts, it was not free of its own contradictions.

Finance vs. Labor and Households

The period since the 1970s has been characterized by stagnant or declining real wages. Fig. 2 presents one measure of this trend, real average hourly earnings in private nonagricultural industries. Average real earnings declined until the mid-1990s and while they slowly increased after this point they never recovered back to the highs reached in the early 1970s. (The rise after the mid-1990s still remained well below the rise in productivity, as I discuss below.) Various factors have been cited for the wage stagnation. Relocation of production to lower-cost sites put US workers in direct competition with the global reserve army of labor, whose size grew immensely by increased participation of China in world industrial production. Meanwhile, the domestic balance of power moved against labor. Declining power of labor organizations and deunionization coupled with the decline of the social wage through cuts in or eliminations of social programs such as guaranteed retirement pensions, unemployment benefits, and so on. Flexible labor markets involved widespread use of temporary and contingent workers, which led to a decline job security, bargaining power, and wages (Rosenberg, 2010). In terms of economic policy, a shift from full

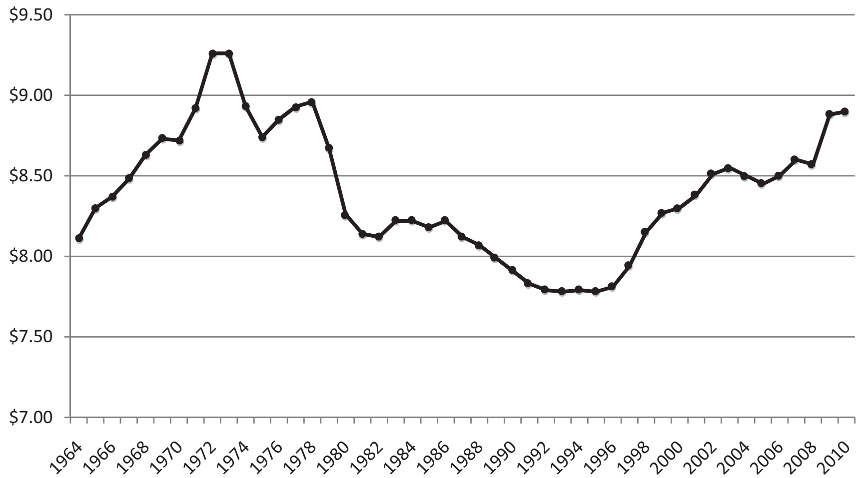

Fig. 2. Average Hourly Earnings (Private Nonagricultural Industries, 1982–1984 Dollars). *Source:* Economic Report of the President, 2011, Table B-47.

employment targeting of the "golden age" to inflation targeting and a reduction in social programs that brought down the social wage also decreased the bargaining power of labor. A similar point was made by Greenspan:

> Increases in hourly compensation … have continued to fall far short of what they would have been had historical relationships between compensation gains and the degree of labor market tightness held…. As I see it, heightened job insecurity explains a significant part of the restraint on compensation and the consequent muted price inflation…. The continued reluctance of workers to leave their jobs to seek other employment as the labor market has tightened provides further evidence of such concern, as does the tendency toward longer labor union contracts. The low level of work stoppages of recent years also attests to concern about job security…. The continued decline in the state of the private workforce in labor unions has likely made wages more responsive to market forces…. Owing in part to the subdued behavior of wages, profits and rates of return on capital have risen to high levels. (Greenspan, 1997)

While various factors cited above contributed to the decline in wages, productivity increased thanks to information technology investments as well as to the intensification of work effort due to increased job insecurity (Rosenberg, 2010). Fig. 3 shows the gap between productivity increases and the real wages. As can be observed from the figure, the increases in real

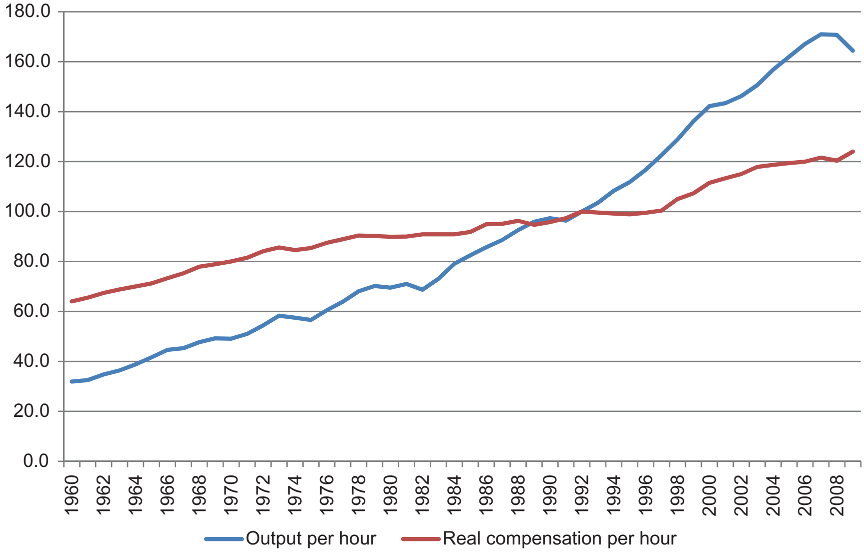

Fig. 3. Productivity-Wage Gap (Nonfarm Business Sector, 1992 = 100). *Source:* Economic Report of the President, 2011, Table B-49.

wages remained well below the increases in productivity and the gap between productivity and wages began widening in the 1990s.

Household consumption, a significant component of the aggregate demand in the economy, was potentially restricted by the decline in real earnings. This issue was emphasized as one of the most important problems of the post-1980 era (Palley, 2010, Bellofiore & Halevi, 2010, Goldstein, 2009). Both Keynesian and Marxian approaches emphasize the significance of aggregate demand as a determinant of economic growth and a potential restriction of its largest component could hamper economic growth.[12] Finance played a dual role with respect to the households' incomes and purchasing power. On the one hand, it has contributed to the downward pressures on earnings, and on the other hand, financial expansions supported the creation of demand through credit and wealth effects.

A fundamental change in the economy during this era was the increased pressure of financial markets on nonfinancial corporations to maximize returns to the financial markets. A shift in the strategy of large nonfinancial corporations was hence identified as a switch from long-term investment strategies to maximization of short-term financial gains and distribution of earnings to shareholders in the forms of dividends and stock buybacks. Recurrent waves of hostile mergers and acquisitions accompanied this process and provided the threat element to managers to follow the shareholder maximization dictum while stock options given to them provided the incentive. This shift in the corporate strategy coupled with attempts to increase profitability contributed to the dampening of the aggregate demand in the economy. On the one hand, the shareholder value maximization dictum was often invoked to promote the downsizing of the firms' workforce. In this era, layoff news was welcomed by the stock exchange and helped increase the value of the firms' stocks. For example, Hahn and Reyes (2004) find that the stock market reacted positively to layoffs that were seen as restructuring-related. Takeovers facilitated by financial markets have been effective in breaking labor contracts and forcing wages down. The 2000s witnessed a wave of leveraged takeovers undertaken by private equity funds. These private equity funds took over firms, restructured them and sold them back. In the process of restructuring, many jobs, health, and retirement benefits and similar commitments to employees were eliminated to enhance the resale value of the firm (Orhangazi, 2008c). Hence, finance has effectively contributed to the overall stagnation of wages. Indeed, for example, Palley (2010) and Duménil and Lévy (2004) advance the argument that redirecting income from labor to finance has been a hallmark of the financialization process.

While finance contributed significantly to undermining the income of labor, it also provided a solution to it, albeit a temporary and contradictory one. Two dynamics supported household consumption in this era: increasing household indebtedness and the wealth effect created through the rising asset prices. Faced with stagnating wages, households relied more than ever on borrowing to maintain their purchasing power. In the face of stagnating wages, households kept increasing their consumption by increased participation in the labor force, working longer hours and finally by borrowing (Wolff, 2010). While, thanks to the impact of cheaper imported products, the households spent a declining share of their incomes on consumer goods, increased medical, education, and insurance expenses have been an important factor pushing households to borrow to maintain their standard of living (Warren, 2007). Hence, real purchasing power was increasingly supported by household debt, and credit became central in providing the means to continuing expansion of consumption despite stagnant wages (Barba & Pivetti, 2009). One indicator of this is the increasing ratio of household debt to household income as presented in

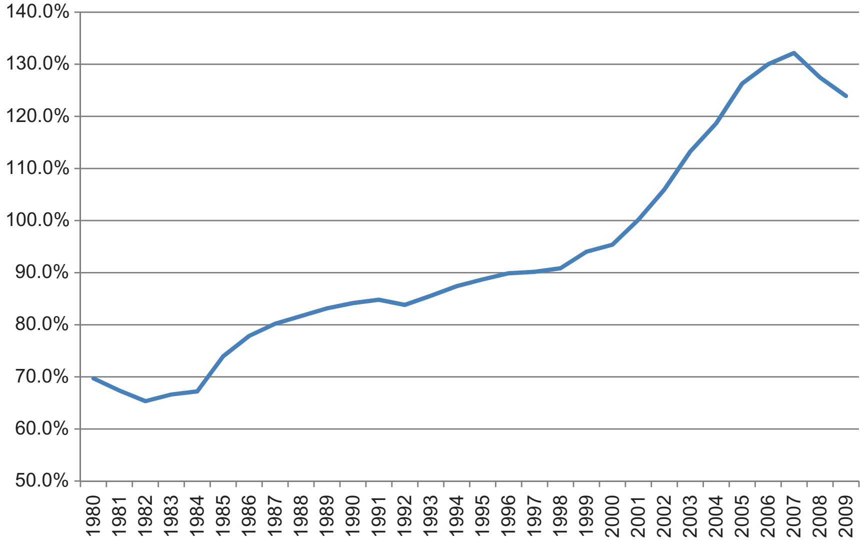

Fig. 4. Total Outstanding Household Debt as a Percentage of Disposable Personal Income (1980–2009). *Source:* US Bureau of Economic Analysis, 2010, Table 2.1 and Federal Reserve Flow of Funds Accounts, 2010, Table D.3.

Fig. 4. The increase in household debt with respect to disposable income is evident in the post-1980 era and the rate of this increase is especially high in the 2000s. Furthermore, through a process sometimes called ''asset market Keynesianism,'' rising asset prices allowed the creation of a wealth effect which acted as an important mechanism in maintaining the purchasing power of the households and supported consumption. Speculative asset bubbles allowed households to increase the debt-financing of their expenses by allowing them to use their houses and other assets as collaterals.

It should be noted that the expansion of credit was facilitated by financial deregulation and booming financial innovations that increased the availability of new financial products that allowed both increased leverage and an increased array of assets that could be collateralized. The home equity loans, new mortgages, such as the zero-downs, as well as the 401(k) plans that one can borrow against are examples of this process (Palley, 2010, p. 15). Securitization processes, the use of asset-backed securities (ABSs), mortgage-backed securities (MBSs), and CDOs together with the expansion of credit default swaps (CDSs) supported the expansion of the debt. Of course, the latest housing bubble played a much bigger role since housing was one

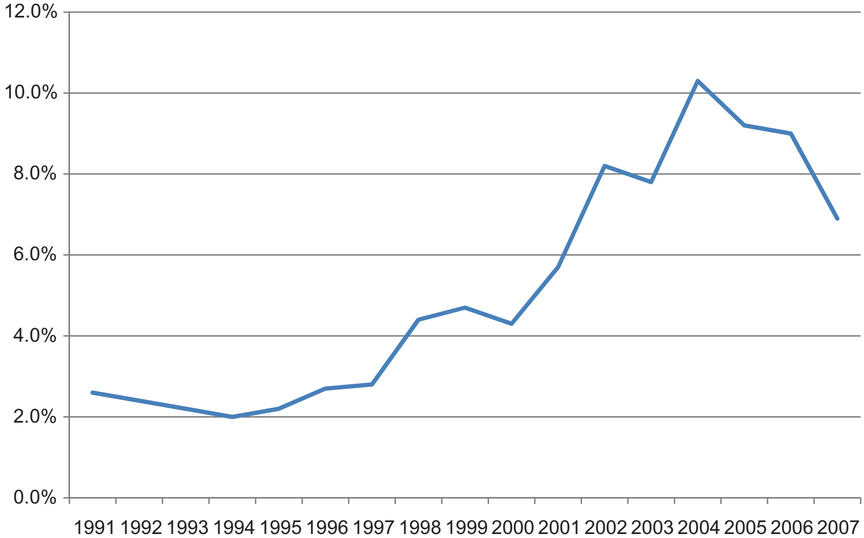

Fig. 5. Gross Equity Extracted as a Percentage of Disposable Income (1991–2007). *Sources*: Greenspan and Kennedy (2007) and Kotz (2009).

of the most widely owned assets by the households. Therefore, financial innovations in regard to the availability of housing finance became central. Moreover, that the increased availability of housing finance further contributed to the housing bubble since increased supply of housing finance contributed to increasing house prices. Figures on gross equity extracted from housing give us an example of finance's contribution to household income in this era. Fig. 5 shows that these funds constituted close to 10 percent of disposable income in the 2000s and thanks to the increasing housing prices households supported their spending by the equity extracted from housing.

Finance vs. Nonfinancial Corporations

While household consumption was increasingly financialized in this era, the relationship between financial markets and nonfinancial corporations also changed significantly. As depicted in Fig. 1, nonfinancial corporations ran into a profitability crisis in the 1970s. Increased competitive pressures and slow aggregate demand growth in the post-1980 era rendered the recovery of profitability difficult, while leading to chronic excess capacity problems in many major industries. While during the "golden age" limited competition placed lower limits on the price while placing upper limits on capacity, the cutthroat nature of competition in the current era, intensified thanks to deregulation and liberalization of trade flows, led to overinvestment relative to demand, leading in turn to excess capacity. In the face of increasing international competition and price wars, corporations attempted to defend their illiquid capital assets and keep their position through further investment in cost-cutting technology. This led to growing idle capacity, which in turn led to downturns in investment spending as well, and hence the slow growth of aggregate demand and the problem of excess capacity reinforced each other. Increased competitive pressures forced firms to further cut wages and relocate production in an attempt to lower labor costs, further contributing to the potential demand problems discussed earlier. However, slow growth of aggregate demand further intensified the competitive pressures and the excess capacity problems (Crotty, 2005).[13]

Evidence for global excess capacity is usually scattered around. At the end of 1990s, *The Economist* was pointing out that the gap between global capacity and sales was the largest since the years of Great Depression.[14] More recently, it was noted that the auto industry has a capacity to make 85.9 million cars and light trucks per year while its total sales was about 30 million short of this number, which corresponds to 120 assembly plants' production.[15] In 2008, it was estimated that in order to remain viable General Motors would need to close five of its twelve North American car assembly plants (Keenan, 2008). In another leading industry, the US computer industry, rate of increase of capacity was estimated to be 40 percent higher than the increase in demand.[16] Excess capacity in steel industry was perhaps one of the most pronounced in the 1990s and 2000s. Crotty (2000, p. 4) noted that excess capacity neared 20 percent in steel while in the early 2000s it was estimated that the excess capacity in the industry was around 200 million tons.[17] The excess capacity problem was intensified by increased domestic and foreign investment in China that increased its industrial capacity at very high rates. Since its ability to absorb the resulting output was limited, this has greatly contributed to the global excess capacity problems. It was estimated that 75 percent of China's industries suffered from excess capacity problems (Bello, 2006, McNally, 2008).[18]

Both aggregate data and anecdotal evidence from business press indicate that the relationship between the firms in the real side of the economy and the financial side became more and more entangled in this period. Indeed, finance might have contributed to the permanency of the excess capacity problems by keeping firms that were otherwise unprofitable in business. Finance became a significant tool for nonfinancial corporations to support both their sales and profits. First, corporations extended consumer credit to their own consumers, and second, they got involved in increasingly complicated financial deals to support profitability. Fig. 6 shows the share of financial assets and financial incomes for the NFCs. It can be observed that close to half of total NFC assets were financial assets and a high percentage of their profits came from interest and dividend income.[19] In fact, the latest financial crisis in the United States made this trend more visible. A recent example showed that General Electric (GE) received one of its biggest hits to its earnings from losses on subprime UK mortgages. GE stated that it expected to lose as much as $2 billion between 2008 and 2010

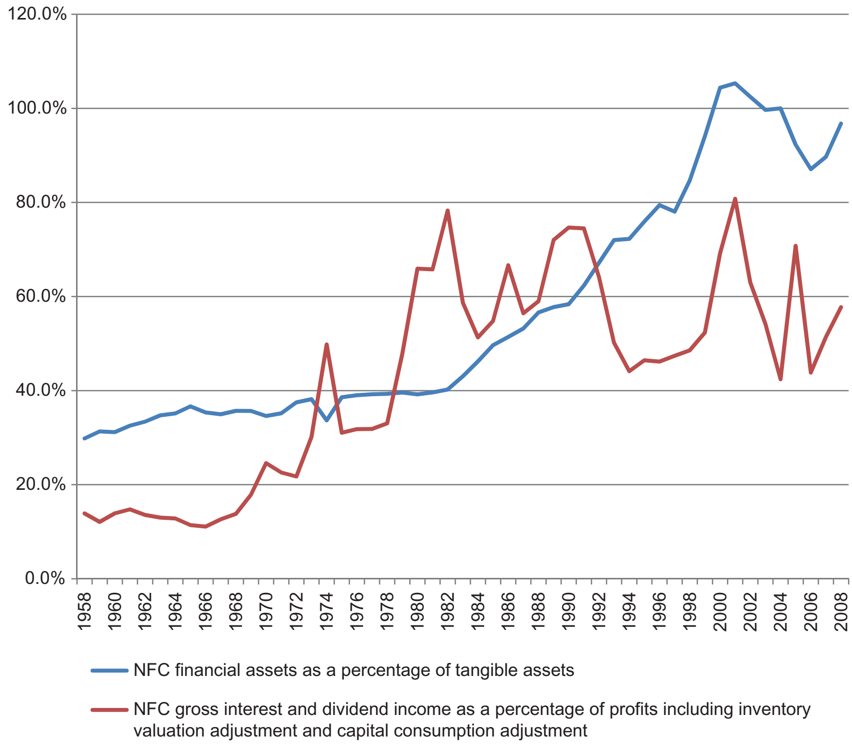

Fig. 6. NFC Financial Assets and Financial Incomes (1958–2008). *Sources:* US Bureau of Economic Analysis, 2010, Tables 6.1, 7.10 and 7.11 and Federal Reserve Flow of Funds Accounts, 2010, Table B.102.

on subprime UK mortgages.[20] As the CEO of the company expressed, "as we grew, financial services became too big and added too much volatility."[21] Corporations used financial dealings both to contribute to their nonfinancial businesses as well as to augment their profits through purely financial dealings. Another company, Southwest Airlines, for example, used derivatives to keep its fuel costs low, and according to a *Wall Street Journal* report, "in fact, were the help from fuel hedges to be excluded, the $4.8 billion in operating profit Southwest has generated since 2001 would fall to just $500 million."[22]

Furthermore, financial booms and bubbles in the same period contributed to overinvestment in the booming sectors. This was evident at the end of the high-tech boom of the second half of the 1990s. By 2000, the total market capitalization of telecom firms was standing at 2.7 trillion dollars, equal to almost 15 percent of the value of all NFCs (Brenner, 2003, p. 21). This was an indicator of the newly created excess capacity in the telecom industry where the capacity utilization rate of telecom networks was only around 3 percent and the same rate for undersea cable was at 13 percent (Brenner, 2003, p. 21). While finance might be responsible for part of the excess capacity, there is also evidence that, due to increased pressures on nonfinancial corporations by the financial markets and the availability of profitable financial investment opportunities, nonfinancial corporations in the United States might be investing less in real capital accumulation. Shareholder value idea, coupled with increased financialization of these firms, contributed to the decline in investment spending (Orhangazi, 2008b; Stockhammer, 2004).

It is also important to note another interaction between financial and nonfinancial sides of the economy. In the post-1980 era financial deregulation and the developments in capital markets led NFCs to change the way that they acquired external financing. NFCs began raising funds in the bond markets as opposed to borrowing from banks both because of the flexibility the former provided and because of the lower costs. Commercial paper increasingly began to be one of the main sources of working capital financing. Through the process they also became more and more independent from the banks in dealing in financial markets. This development, known as disintermediation, led the banks to seek new sources of profits through financial market mediation, increased fees and commissions, profits from trading and increased lending to real estate and consumers. Hence, the change in the financing behavior of the NFCs has been a contributor to the changes in the banking sector and potentially to their riskier behavior.

Speculation and Asset Bubbles

Another phenomenon through which we can see the interactions between the finance and the rest of the economy is the speculative asset bubbles that characterized the global economy in the last couple of decades. In the post-1980 era, the US economy went through three major speculative asset bubbles. The first one involved the real estate market and culminated in the collapse of the savings and loan industry in the 1980s. In the second half of the 1990s, an asset bubble developed in the stock market around the hi-tech and internet companies and collapsed in early 2000s and led to a series of defaults and bankruptcies. Finally, in the 2000s a speculative bubble developed in the housing sector that ended by the financial collapse of the 2007–2008.

Among the various factors behind these bubbles, two policy-related ones have been significant: changes in the regulatory framework and loose monetary policy. First, neoliberal era has been characterized by a series of regulatory changes that took place mainly in the 1990s and 2000s. The infamous *Gramm-Leach-Bliley Act* of 1999 repealed the *Glass-Steagall Act* and opened way to a change in the banking structures. In 2000, *Commodity Futures Modernization Act* replaced the 1982 *Shad-Johnson Act* and exempted certain financial innovations, specifically credit default insurance from regulation. This permitted financial institutions to invest significant sums in the CDSs. Furthermore, the *Sarbannes–Oxley Act* legalized the off-balance sheet activities, on the condition that risks and rewards of these activities were held by other entities. All these contributed to the emergence of speculative asset bubbles. For example, the role of off-balance sheet financial activities during the housing bubble of the 2000s was significant (Jayadev & Kapadia, 2008). Allowing investment banks to increase their leverage in 2004 further contributed to the expansion of the bubble. Second, the monetary policy was mainly based on inflation targeting, which was often preoccupied with the goods inflation but not the asset price inflation. Furthermore, monetary policy was used actively through a lowering of the federal funds rate in order to stave off slowdowns, as exemplified in two instances in 1992–1993 and 2002–2003. This showed that the FED aimed maintaining consumption at higher levels through increased credit at low interest rates while it would not act against the asset bubbles.

While deregulation and monetary policy obviously contributed to the creation of an environment prone to speculative asset bubbles, three other factors should be considered in relation to the emergence of these bubbles and in relation to the rise of finance in general: the rise of the institutional investors, increasing income and wealth inequality, and financialization of the nonfinancial corporations. First of all, the size of institutional investors such as pension funds increasingly grew in this era. In 1970, less than 30 percent of the corporate stocks were held by institutional investors in the United States. This ratio passed 50 percent in the 2000s. Pension funds that held about 10 percent of corporate stocks in 1970s had more than 20 percent by the 2000s (Orhangazi, 2008a, pp. 34–35). Among the factors that led to this increase in the presence of institutional investors were regulatory changes, technological advances that allowed institutional investors to more efficiently trade, and reallocation of household savings from bank deposits to various funds. These institutions heavily used financial innovations such as MBSs and collateralized mortgage obligations, especially in the 1990s and 2000s.

Second, increased income and wealth inequality in the United States directed more and more funds into speculation through institutions such as investment and hedge funds. While the rise of profits and financial incomes relative to wages was a major factor leading to a concentration of income and wealth at the top, profits made from managing this increasingly concentrated wealth further contributed to these inequalities. While the regulatory framework allowed increasingly complex financial innovations, the institutional investors and the wealthy provided the demand for these complex financial assets. The large amount of accumulated wealth sought professional management through institutional investors as a substantial amount of investable funds were produced relative to the existing available investment opportunities.[23]

Third, financialization of the nonfinancial corporations has been an important contributor to the speculative asset bubbles. As noted earlier, nonfinancial corporations also demanded a variety of financial assets and provided funds that went into financial assets. Moreover, the increased pressure on nonfinancial corporations to provide higher returns to the financial markets coupled with the stock options granted to the management led to increased stock buybacks by these corporations to maintain or increase their stock prices. NFCs either used their resources or borrowed to buy back stocks which essentially broke any connection between stock prices and expected profits from the firms' existing assets. In fact, nonfinancial corporations as a whole did not use the stock market as a venue to raise funds for investment as the textbook economic theory would presuppose, but rather to transfer their earnings to stockholders. Hence, as the inflow of funds into the markets exceeded the amount taken up by new issues, this contributed to the bubbles by putting an upward pressure on prices (Toporowski, 2010).

The emergence of speculative asset bubbles also shows the complicated relationship between the real and financial sides of the economy. In addition to the monetary policy choices and regulatory framework both financial and real factors contributed to the emergence and expansion of the asset bubbles. These bubbles, on the contrary, contributed to demand creation in the economy as discussed above but also rendered both households and corporations more fragile.[24] Asset bubbles had economy-wide effects as they changed the behavior of corporations and households, while households enjoyed capital gains through direct or indirect (through pensions, insurance and mutual funds) stock ownership. The housing bubble contributed to the economy in two ways: first, construction averaged 4 percent of the GDP while after the collapse it shrank to less than 3 percent; and second, the wealth effect on consumption is estimated to be between 5 persent and 7 percent (Baker, 2010, p. 34). However, containing the problems stemming from the collapse of these bubbles required successful and comprehensive government interventions, the largest one being the latest interventions to bail out the system after the burst of the housing bubble.

Global Imbalances

The picture presented so far is completed with the imbalances in the global economy, especially between the United States and the rest of the world, sustained thanks to the centrality of US dollar and US financial markets in the post-Bretton-Woods international monetary system. Hence, another factor to be added is the willingness of both governments and financial institutions to hold US dollars. The imbalances between the surplus and deficit countries have been more pronounced especially in the last decade. For the US economy, widening trade deficit was mirrored in the increasing flow of capital into the country. As depicted in Fig. 7, the US current account deficit widened significantly since 1990s. The structural reasons behind this trend included increased relocation of production to lower-labor-cost countries through outsourcing and subcontracting concomitant with the rise of export oriented countries, especially in Asia. While relocation of production outside the United States was a significant contributor to the decline of high-paying jobs and investment, low-priced imports became an enabling factor in sustaining the stagnant wages of the

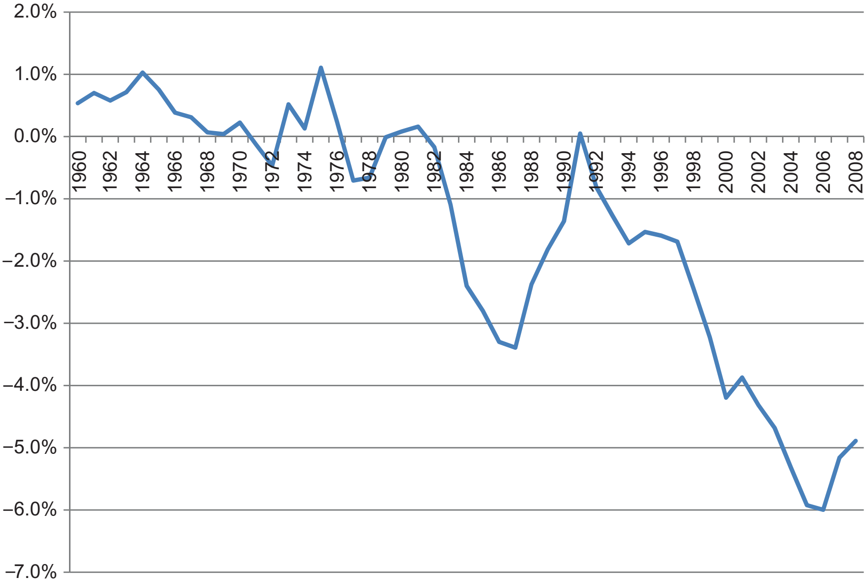

Fig. 7. US Current Account Balance as a Percentage of GDP. *Source:* Bureau of Economic Analysis, US International Transactions.

era. In the process, US consumption, heavily dependent on credit, became an outlet for many export oriented economies in the world. Clearly, the level of trade deficit that the United States had for years would be unsustainable for any other country. However, the post Bretton-Woods international financial system in which the US dollar kept its role as an international currency, though without any backing, enabled the continuation of these imbalances.

The inflow of international capital into the United States involved both private and public savings. The liquidity and perceived soundness of the US financial markets and institutions drew global savings into the American financial markets and financial instruments. Securitization and financial innovation in the United States contributed to attracting the excess savings of the world to the United States. As Wolf (2008) noted the United States attracted private investment because it "provides attractive liabilities: property rights are secure, the economy seems dynamic in the long-run, the dollar is the world's most important currency, and markets are liquid" (p. 98). Hence, the role of the US dollar as an international currency together with the structure of the financial markets sustained it as the financial center of the world economy. As for the public savings, export-oriented policies of the Asian economies together with the need to hold dollar reserves against financial instability, especially against exchange rate instability led to a growing amount of surplus flowing to the US economy from these economies. A leading saver in Asia has been China, whose private and public savings reached 50 percent of GDP. Added to this was the savings of the commodity producers entering the US economy, especially in the 2000s, thanks to rising commodity prices. The financial and exchange rate crises of the 1990s have been effective in leading the countries to accumulate more and more reserves in order to combat future instability. After each financial crisis in this era, the countries subject to the crises increased their foreign exchange reserve holdings immensely. Indeed, Dufour and Orhangazi (2007, 2009) showed that those countries that had severe financial crises increased their foreign exchange reserves significantly as a precaution against future instability. In this setup, while the US dollar played the role of international currency and served as a basis for international accounting and payments system, the US Treasury bonds played a key store-of-value role.

In short, the international financial system based on the dollar as the international currency led the world to invest its savings in the United States. This allowed the United States to engage in expansionary policies and keep interest rates low while enabling the United States to become the consumer of the world, primarily through household borrowing. The post-Bretton-Woods financial architecture based on the dollar as the international currency is crucial in this regard as the United States would not be able to sustain such a large trade deficit had the link between the dollar and gold not broken without a run on the US gold reserves.

CONCLUDING REMARKS

Financial markets, institutions, and activities occupy a large and significant role and place in the modern economy. While mainstream analyses argue that the increasing size of finance merely shows a sophistication of an economy and is supposed to lead to economic benefits, and Keynesian analyses focus on the adverse effects of increased financialization, for Marxian theory finance plays a complex and contradictory role. Finance's role long ago went beyond supporting the real economy but became a central one in shaping it while at the same time being shaped by it. In the neoliberal era, the relationship between the financial and the real sides of the economy became more complicated. A common critique advanced in the aftermath of the financial crisis focused on the damage of unregulated finance on the real economy. However, approaches that take finance as something external that impinges on the real economy or as a sphere that grew simply as a response to the problems in the real side of the economy are potentially limiting our efforts to understand contemporary capitalism and its likely path(s). This chapter attempted to provide evidence of the complicated and contradictory relationship between the financial and the real sides of the economy through a discussion of the major structural problems of the era. Clearly, further research and analysis is called for to better understand the linkages between the real and the financial in the modern economy as well as to better assess the much debated policy issues and their likely consequences.

NOTES

1. The concept of "black swan" was popularized by Taleb (2007). Accordingly, "black swans" are rare events that cannot be foreseen in advance. See Davidson (2010) and Terzi (2010) for a discussion of the epistemological concept of uncertainty lying behind this approach as opposed to the ontological concept of uncertainty.
2. See Orhangazi (2008a, pp. 42–49) for an assessment of this approach.
3. Furthermore, seeing the period since 1970s as an ongoing crisis rather empties the concept of crisis from any analytical meaning. While growth in the post-1980 era has clearly been slower than the "golden age" years, this period witnessed strong recovery in the profits of the US nonfinancial corporate sector, capitalism sustained growth through new centers of accumulation especially in China and other East Asian countries, production has been transformed through new technologies, especially in information and telecommunications and so on.
4. Lapavitsas (2010) has a similar argument where he notes, "causation between real accumulation and finance … runs in both directions, even if the former sets the parameters for the latter" (p. 17). Thanks to Iren Levina for pointing out the similarities between some of the arguments here and in Lapavitsas (2010).
5. To be sure, there are both Marxian (e.g., Kotz 2009) and post-Keynesian (e.g., Palley 2010) works that take into consideration both the "financial" and the "real" dimensions of the recent crisis.
6. While there are different interpretations within each approach and sometimes strong convergences between them, I do not intend to go into a discussion of these but rather present the general ideas about the role of finance with respect to the rest of the economy. Interested readers can see Crotty (1986, 1993) for detailed discussions and comparisons of Marxian and Keynesian approaches to finance and investment and Goldstein and Hillard (2009) for a recent compilation of the convergence points between the two approaches.

7. See Crotty (2008) for an in-depth critique of this approach and its practices.

8. Typically, different Marxian economists emphasized one or the other of these crisis tendencies. See Itoh and Lapavitsas (1999, p. 126) for a brief review.

9. Toporowski (2009) shows that in addition to Hilferding, Luxemburg's analysis of the role of finance in capital accumulation, although peripheral to her overall argument, "has sufficient critical elements to warrant a place for Luxemburg among the pioneers of critical finance" (p. 89).

10. See, for example, Crotty (1986), Harvey (1982), Itoh and Lapavitsas (1999) for detailed discussions of the role of finance in Marxian theory.

11. Various explanations have been offered for the decline in profitability. These ranged from profit squeeze arguments (Glyn & Sutcliffe, 1972) to a slowdown in productivity growth due to diminished worker effort (Bowles, Gordon, & Weisskopf, 1986), tendency of the profit rate to fall (Shaikh, 1987) and to increased foreign competition (Brenner, 1998).

12. The role of aggregate demand and especially the role of labor's consumption is a contested issue among Marxian economists. See Desai (2010) for a detailed discussion of the issue.

13. Brenner (1998) emphasized the entrance of new manufacturing powerhouses from Europe and Asia and the huge scale of investment taking place in China. See Crotty (1993, 2000, 2005) for detailed analyses of the chronic excess capacity problems.

14. *The Economist*, February 20, 1999, p. 15.

15. *Wall Street Journal*, November 16, 2009, p. A2.

16. "Chief named for troubled GM unit." *New York Times*, May 31, 2006, p. C1.

17. US Mission to the European Union, "OECD nations pledge reduction in global steel capacity," February 8, 2002.

18. Kotz (2007) in a detailed empirical study finds that in the neoliberal era expansions, excessive competition was one of the most significant crisis tendencies.

19. Note that these figures do not include capital gains, which is not reported in the BEA statistics. If one adds capital gains to this, the financial profits become much higher (see, e.g., Krippner, 2005, who estimates these numbers using Internal Revenue Service data).

20. *Wall Street Journal*, October 15, 2009, p. B1.

21. *Wall Street Journal*, March 6–7, 2010, p. B5.

22. "Southwest losses," *Financial Times*, October 17, 2008, p. 14.

23. Crotty (2008) notes that intense competition between banks was another reason behind the introduction of ever more complex financial innovations.

24. See Orhangazi (2009) for a discussion of the relationship between financialization and corporate fragility.

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