

**The Crisis of the Early 21st Century:  
A Critical Review of Alternative  
Interpretations**

*Preliminary draft*

*Gérard DUMÉNIL and Dominique LÉVY*  
*CNRS and PSE-CNRS*

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*Address all mail to:* PSE-CNRS, 48 bd Jourdan, 75014 Paris, France.  
Tel: 33 1 43 13 62 62, Fax: 33 1 43 13 62 59  
E-mail: dominique.levy@ens.fr, gerard.dumenil@u-paris10.fr  
Web Site: <http://www.jourdan.ens.fr/levy/>

## 1 - The on-going debate

[vérifier les pics NBER sur les figures et dans captions.]

That capitalism underwent a new structural crisis about three decades after the crisis of the 1970s, and under circumstances evocative of the Great Depression, raised numerous interrogations. Within the radical Left, the crisis arose the hope of a major transformation, still to come as of 2011. The purpose of the present paper is to discuss the set of interpretations of the crisis put forward by Marxist economists.

Marxist economists share a common critical analysis of capitalism in general and, more specifically, of neoliberalism, the latter phase of capitalism. But there should be no surprise in the discovery that the interpretation remains controversial. The example of the Great Depression is telling in this respect. Eighty years after the event, no consensus has yet been found concerning its actual causes, and the same sets of explanations are often retaken in the discussion of the current crisis.

In our own contribution, “The Crisis of Neoliberalism”<sup>1</sup>, we interpret the contemporary crisis in relation to the specific features of neoliberalism, given the trajectory of cumulative disequilibria of the U.S. economy that the international hegemony of the country rendered possible: *a crisis of neoliberalism under U.S. hegemony* (section 2). With most other Marxist economists, we agree that the crisis is not a “mere” financial crisis, despite the obvious major role played by financial mechanisms (section 3). The main source of divergence comes from the fact that we neither link the crisis to *excess of profits*, as in theories of underconsumption (section 4), nor to *deficient profits*, as in analyses pinning the crisis on the low values of profit rates (section 5). The paper also discusses approaches attempting to salvage analyses in terms of deficient profit rates, focusing on the recurrent fluctuations downward of profit rates in the short run instead of historical trends (section 6). To these diverging views, one must add that we also do not support the thesis that the declining phases of long-waves necessarily lead to movements toward excess financialization conducive to major crises. But this last issue will only be addressed in a forthcoming version of the paper.

1. G. Duménil, D. Lévy, *The Crisis of Neoliberalism*, Harvard: Harvard University Press (2011).

Note that no specific development will be devoted to “overaccumulation”. The reference to the excess accumulation of capital requires the specification of the variable to which accumulation is compared to be judged too large. Two options are opened. One is the reference to the levels of demand, as in section 4. The other is a comparison with profits, that is, the assessment of profitability levels, as in sections 5 and 6.

## 2 - “The crisis of neoliberalism”

We recall that, in the mid-1990s, we defined neoliberalism as a class phenomenon.<sup>2</sup> More specifically, neoliberalism is a new “social order”, which followed the class compromise of the postwar years, in which capitalist classes restored their powers and income, considerably diminished during the first decades following World War II: a new “financial hegemony”. We denote as “Finance” the upper fractions of capitalist classes and *their* financial institutions. (Finance, directly or indirectly, owns the entire large economy, not only financial corporations.) Two other features must be added to this broad characterization. First, the control of financial institutions—now supposed to work to the strict benefit of capitalist classes—was a prominent component of the new social order. Second, the transition, under capitalist leadership, to this new power configuration would have been impossible if it had not been conducted in alliance with managerial classes, notably their upper segments.

The overall interpretation we gave of the current crisis, as a “crisis of neoliberalism”<sup>3</sup>, is summarized in diagram 1.<sup>4</sup> (Some of the

2. G. Duménil, D. Lévy, “Costs and Benefits of Neoliberalism. A class analysis”, *Review of International Political Economy*, 8 (2001), p. 578-607, first published, in French, in 1998. G. Duménil, D. Lévy, *Capital Resurgent. Roots of the Neoliberal Revolution*, Harvard: Harvard University Press (2004).

3. The reference to a crisis of neoliberalism does not imply that neoliberalism will necessarily not survive to the crisis. Alfredo Saad Filho uses the phrase “neoliberalism in crisis” to emphasize this point (Saad Filho, “Neoliberalism in Crisis: A Marxist Analysis”, *Marxism* 21, 14 (2010), p. 247-269).

4. Diagram 2.1 of G. Duménil, D. Lévy, *The Crisis of Neoliberalism*, *op. cit.* note 1.

empirical observations involved in this analysis are shown in the figures in the following sections.) At the root of the entire process is “neoliberalism under U.S. hegemony”. From this, derived two strands of explanatory factors. In the upper part of the diagram are mechanisms typical of neoliberal capitalism in every country: (1) the quest for high income; (2) financialization; and (3) globalization. Capitalist classes always seek maximum income, but after the imposition of neoliberalism in the early 1980s, major transformations of social relations were realized in comparison to the previous decades, aiming at this maximization. A new discipline was imposed on workers and all segments of management; new policies were defined to the same end; free trade placed all workers of the world in a situation of competition; capitals were now free to move around the globe seeking maximum profitability. To financialization and globalization, one can add deregulation that conditioned both processes. Financialization and globalization converged in financial globalization. There is, therefore, significant overlap in the definition of the three aspects listed in the diagram.

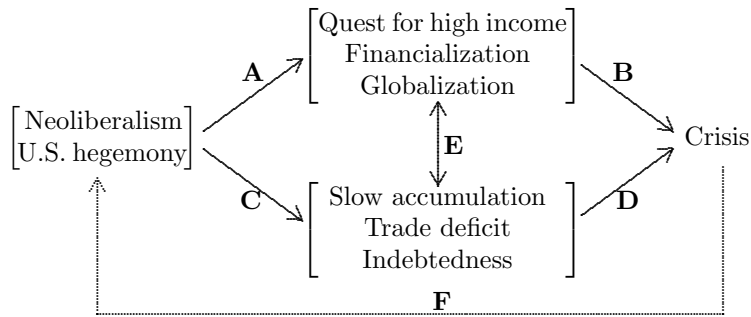


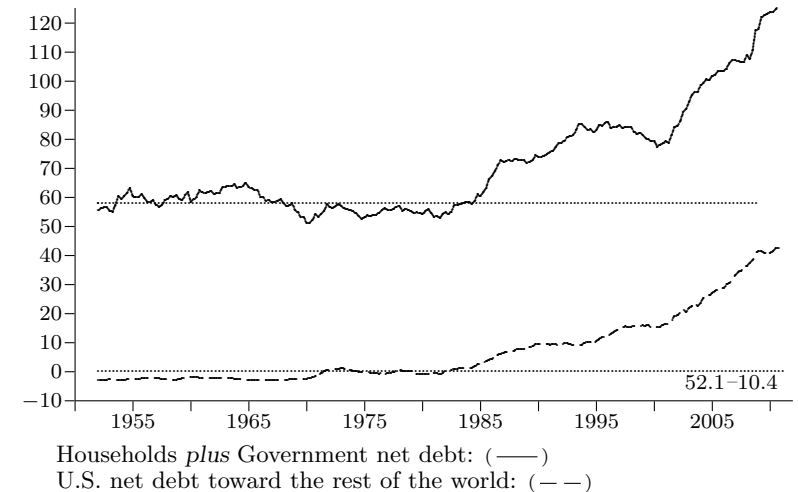
Diagram 1

Because of the leadership of Finance in the conduct of the neoliberal endeavor, we denote the crisis as a “crisis of financial hegemony”. The practices that led to the crisis echo Marx’s analysis in the *Communist Manifesto* of capitalist classes acting as apprentice sorcerers, a characterization that nicely matches the features of the contemporary crisis.

The crisis could have come later to the world as a result of this neoliberal strategy pushed to the extreme, but it came from the United States during the first decade of the 21st century. On the one hand,

the country was the most advanced among the large capitalist countries in the conduct of the above transformations. On the other hand, as depicted in the lower frame of the diagram, a set of other “specifically U.S.” features converged with the above mechanisms. They can be described as the trajectory of disequilibria of the U.S. economy, in both its national and international aspects. The main components of this trajectory are as follows: (1) the declining rate of capital accumulation; (2) the rising share of consumption (including housing) in GDP; (3) the rising indebtedness of households; (4) the widening deficit of foreign trade; (5) the increasing financing of the U.S. economy by the rest of the world (“external debt” for short). The two later trends would have been impossible to maintain during 30 years in the absence of the international hegemony of the country, of which the position of the dollar as world currency is a consequence and instrument.

Figure 1 Net debts: U.S. households and Government considered jointly, and the U.S. economy toward the rest of the world (percent of U.S. GDP).



The variables are debts in credit market instruments. *Net debts* means debts minus assets.

These two sets of factors, both real and financial, are not autonomous. This is expressed in the vertical arrow E that denotes

reciprocal relationships. For example, the increasing indebtedness of households (lower part of the diagram) would have been impossible independently of the new trends typical of financialization and financial deregulation (upper part). (An example was the development of securitization.) These trends resulted in the construction of an increasingly more fragile financial structure, where tremendous effective and fictitious profits were made.

Another facet of the same reciprocal relationships in Arrow E is the role played by globalization, a crucial mechanism. The development of free trade in a world of unequal development and costs caused the rising U.S. deficit of foreign trade. A large fraction of the impact of credit policies tending to support demand on U.S. territory ended up in increased imports and, correspondingly, growing trade deficits (given the comparative cost of labor in the United States and the eroding technical leadership of the country). It is possible to show that the domestic debt and the external debt are the two facets of a same coin<sup>5</sup>. The parallel growth of the two debts during the neoliberal decades is impressive, as shown in Figure 1.

The growth of the domestic debt (the debt of households prior to the crisis), the expression of the policy intending to support domestic demand, was only made possible at the cost of the tolerance toward laxer lending practices and the corresponding wealth of daring financial innovations, which, finally, manifested themselves in the mortgage wave (given the sales to the rest of the world of the securities issued to support lending). As is well known, it is the collapse of this mortgage pyramid that destabilized the overall fragile financial structure and, finally, the real economy. But the pyramid was already there, the expression of unsustainable real and financial trends.

### 3 - A mere financial crisis?

From its first steps, the current crisis has been described, mostly by nonMarxists economists, as a “financial crisis” or, even more

5. G. Duménil, D. Lévy, *ibid.*, ch. 11.

specifically, as the “subprime crisis”.<sup>6</sup> When analysts comment on the plunge of output in the United States and the rest of the world at the end of 2008, reference is made to a financial event, the fall of Lehman Brothers, certainly not the cause of everything.

Most Marxist economists tend to reject such interpretations that emphasize monetary and financial mechanisms. They point to mechanisms considered as more fundamental, notably the deficient *purchasing power of workers* and *low profitability levels* (as in the following sections). In a number of instances, it is explicitly or implicitly assumed that the denial of the explanatory power of either one of these two mechanisms leaves only a single interpretation opened in which the crisis is seen as a “mere financial crisis”. There is allegedly no room for other nonfinancial mechanisms once deficient demand and low profitability have been set aside. In the worst of all instances, it is contended that this denial betrays a bias in favor of reform instead of revolution!

There is also a symmetrical inclination within a limited component of Marxian interpretations of the crisis to elaborate on Marx’s analysis of fictitious capital in volume III of *Capital*.<sup>7</sup> From the observation of the expansion of financial mechanisms in the 19th century, Marx gave a very convincing early description of uncontrolled financial expansion, a prominent aspect of the current crisis, but this potential interpretation of crises coexists with other mechanisms such as the tendency for the profit rate to fall.

Even if the crisis of neoliberalism is not a “mere financial crisis”, it is unquestionable that the expansion of monetary and financial mechanisms was a central aspect of the trends leading to the crisis. The problem here is not the emphasis on financial mechanisms but the omission of other factors.

6. In the Left, one can mention the analysis by Peter Gowan, in which the emphasis is on financial innovations, “a cluster of mutually reinforcing innovations which we have called the New Wall Street System” (P. Gowan, “Crisis in the Hartland. Consequences of the New Wall Street System”, *New Left Review*, 55 (2009), p. 5-29).

7. Fictitious capital is a central theme in François Chesnais’ work (F. Chesnais, “La prééminence de la finance au sein du “capital en général”, le capital fictif et le mouvement contemporain de la mondialisation du capital, p. 65-130”, in Séminaire d’Etudes Marxistes, *La finance capitaliste*, Paris: Presses Universitaires de France (2006).) Concerning, the crisis, Chesnais combines the overaccumulation of productive capacities and the accumulation of fictitious capital (F. Chesnais, *Crise de suraccumulation mondiale ouvrant une crise de civilisation*, Paris, <http://www.npa2009.org> (2010)).

Figure 2 Issuances of U.S. private-label MBSs and total CDOs worldwide (Monthly data, billions of dollars).

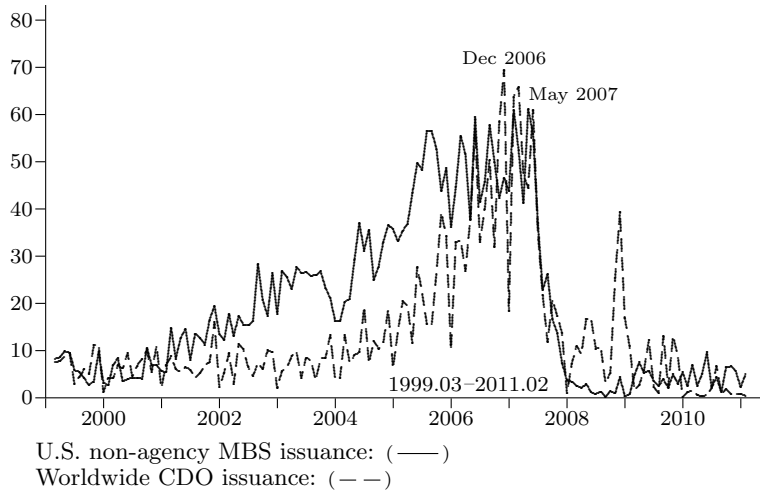
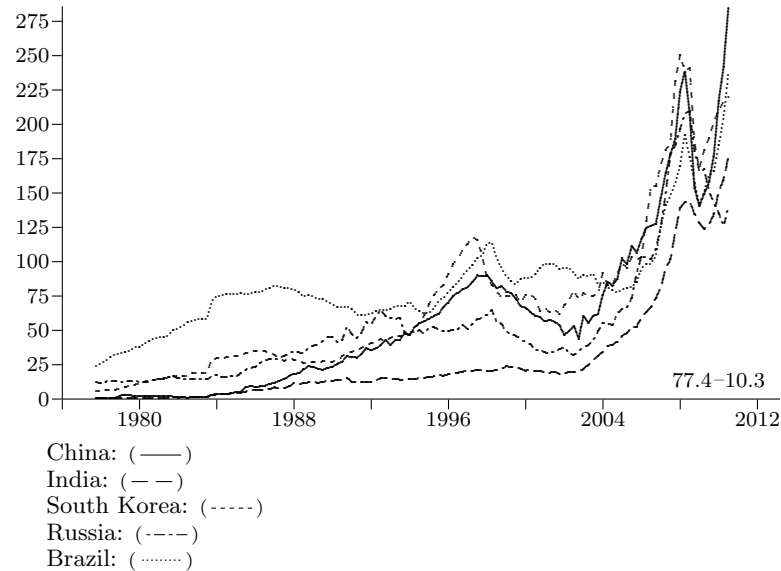


Figure 3 Debts to foreign banks: Five countries of the periphery (billions of dollars).



The variable accounts for loans and securities held by banks (reporting to the BIS). The debt for Russia refers to the Soviet Union prior to the collapse.

Financialization has been a basic feature of capitalism from its origins, with a dramatic acceleration within neoliberalism, but the analysts of the crisis should not overlook the explosion of financial mechanisms after 2000, which supports the thesis of a major role. In all instances—securitization, Collateralized Debt Obligations (CDOs), Credit Default Swaps (CDSs), conduits, commercial paper, leveraged buyouts, currency exchanges, derivative markets, and the like—the same accelerating process is observed after 2000 to the outburst of the crisis.

Of the various possible illustrations, we will only consider two examples. They are basic aspects of what we call a “fragile financial structure”. We begin with securitization. The first variable in Figure 2 is the issuance of Mortgage Backed Securities (MBSs) in the United States by private-label issuers (as opposed to Government sponsored enterprises such as Fannie Mae). The second variable is the issuance of Collateralized Debt Obligations (CDOs) worldwide, one type of “vehicles”, among the riskiest, in which MBSs are pooled. The two variables point to the same dramatic expansion of these mechanisms after 2000, from about 2 to 60 billions of dollars monthly. Another spectacular example is the rise of international banking—a globalization of the banking system. The variable in Figure 3 is the total amount of loans outstanding made by banks worldwide to borrowers from countries distinct from their own or, equivalently, the debts to foreign banks. The figure shows the data for five emerging countries. The first wave was reversed after the crises of the late 1990s in various regions of the world, but a new boom occurred, beginning in 2003, to levels almost three times larger than the previous peak.<sup>8</sup>

Beyond the boundaries of Marxism on the strict sense, one can also mention analyses relying on Hyman Minsky’s “financial instability hypothesis”.<sup>9</sup>

As should already be clear from the summary of our interpretation in section 2, in our opinion, financial mechanisms are only one

8. In a number of countries the level was even higher in the third quarter of 2010.

9. An example is the analysis of Randall Wray, whose emphasis is on a “money manager phase of capitalism”, “shadow banking”, and the production of “increasingly esoteric instruments” and “highly leveraged funding” (L.R. Wray, *Money Manager Capitalism and the Global Financial Crisis*, Levy Institute, Working paper No. 578 (2009)). See also, L.R. Wray, Y. Nersisyan, *The Global Financial Crisis and the Shift to Shadow Banking*, Levy Institute, Working paper No. 587 (2010)).

component of the entire set of interrelated mechanisms, though a major element. First, financialization is not an end *per se* but a tool in the pursuit of one end, the maximization of the income and wealth of upper classes. This is where the roots of everything are located. Second, the various aspects of the trajectory of the U.S. economy were crucial factors. They are not mere financial developments but complexes of major macro dynamics. Third, globalization played a role as important as financialization in the occurrence of the crisis. This is manifest in, at least, two respects: (1) the rising deficit of U.S. foreign trade; and (2) the difficulty met by the Federal Reserve in the conduct of monetary policy in a world of globalized finance. Instead of pitting real against financial mechanisms as competing explanatory factors, the introduction of the framework in section 2 aims at the demonstration of the tight relationships that link these various elements, as acknowledged by many Marxist economists opened to a pluralistic interpretation. But the coherence of all of these factors can only be found in the reference to “neoliberalism under U.S. hegemony”, the root of everything.

## 4 - Excess profits, underconsumption, and the preservation of demand levels

There is a long tradition, deeply rooted within Marxian economics, of imputing crises in capitalism to the deficient purchasing power of wage-earners, as manifest in the low levels of the share of wages in total income. Reference is made to a quotation from Volume III of *Capital*, ignoring its context, while it is generally not known that Marx straightforwardly refuted this thesis in Volume II.<sup>10</sup> This view is shared by many Keynesian economists. (A more sophisticated approach points to an optimal or, at least, appropriate share of wages that would simultaneously allow for the profitability of capital and demand levels.) The present section does not discuss such theoretical issues, only empirical observations. Did income distribution explain inadequate demand levels prior to the current crisis? Was it necessary to boost demand? Why and through which mechanisms?

10. K. Marx, *Capital, Volume II*, New York: First Vintage Book Edition (1885), p. 486.

## 4.1 A declining share of wages?

### 4.1.1 Measurements

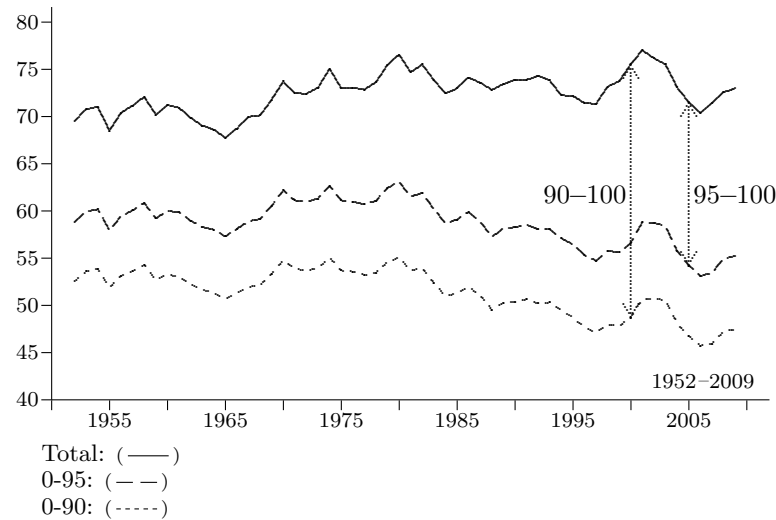
A preliminary step in the discussion of the thesis of deficient purchasing powers linked to a bias in income distribution is to check whether the share of wages in total income actually diminished in the United States during the neoliberal decades and, in particular, after 2000. The variable (—) is shown in Figure 4 for the nonfinancial corporate sector. (For other sectors, see Figure 9.) No significant trend downward is apparent.

This observation contrasts with the well-known fact that the real wages of the vast majority of wages-earners were stagnating while labor productivity was still growing. It is true that, considering only “production workers” (about 80 percent percent of wage-earners), their real earnings increased slower than the average. (These issues are retaken in the commentary of Figure 7.) The solution of the apparent contradiction lies in the observation that upper wages increased much faster. (Wages include all supplements, bonuses, realized stock-options, and the like.) This is shown in the second variable (----) in which the 5 percent of wage-earners with upper wages has been taken out. The share of the remaining 95 percent displays a downward trend after 1980. In the third variable (----), the same sort of calculation is repeated but the upper 10 percent is subtracted, instead of 5 percent. The band between the two variables is constant. This observation shows that the concentration of income in favor of high wages was confined within the upper 5 percent, while the share of the 90-95 fractile remained constant and the share of the 0-90 diminished. These distributional trends echo important social transformations briefly addressed in the following section.

### 4.1.2 Upper wages: Managerial trends

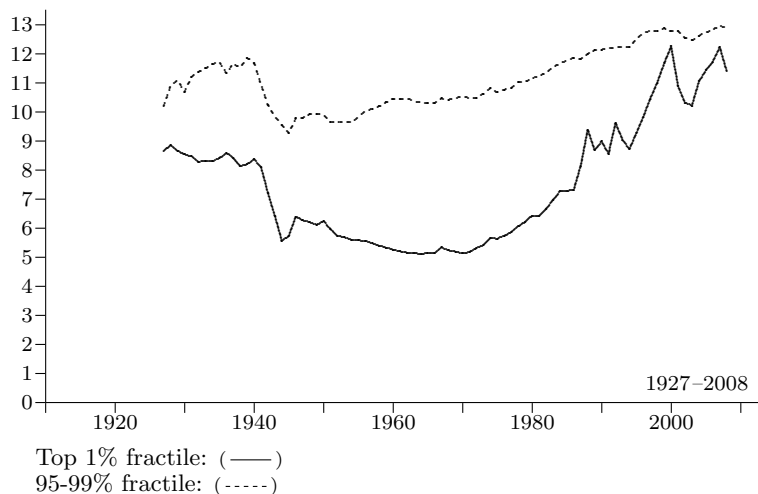
We interpret these changing patterns as the effect of “managerial” trends, in particular the fate of managers within neoliberalism. (Within “managers”, we include both private and government components.) Figure 5 shows the percentage of total wages received by two income fractiles summing up to the 5 percent of households with upper incomes. The first group is the top 1 percent, and the second group, the 95-99 fractile. The share within total wages of the two groups diminished during World War II, an expression of the establishment of the postwar compromise. The two percentages increased

Figure 4 Shares of wages in total income: U.S. nonfinancial corporate sector (percent).



Since data concerning the wages of income fractiles are not available within national accounting frameworks, the series ((---) and (.....)) draw from the statistics used in Figure 5, obviously an approximation.

Figure 5 Shares of total wages received by two income fractiles: U.S. households (percent).



during the subsequent years but the profiles are distinct. The share of the 95-99 fractile rose steadily since the war, and the establishment of neoliberalism did not interrupt this trend. Conversely, neoliberalism altered the trends of wage distribution to the benefit of very high incomes, here approached as the upper 1 percent. These top fractiles are also those concentrating the great mass of capital income (interest and dividends, including capital gains).

Overall, these trends point to a two-tier mechanism whose interpretation would require a much broader discussion. But the outcome was the same. There was a major “wage component” in the dramatic concentration of income in neoliberalism to the benefit of upper income strata. There is no need to emphasize the shocking character of neoliberal social trends, but the investigation here is on the formation of demand. Involved is the propensity to spend of various income fractiles. (In spendings, we include consumption in the strict sense and residential investment.)

#### 4.1.3 Rising consumption and declining savings

Did the shifting income patterns diminish the overall propensity to spend of households? Equivalently, do upper income fractiles spend proportionally less than lower strata? A positive answer could be expected, since the beneficiaries of upper incomes are supposed to save more. It was so prior to neoliberalism, but gradually less and less throughout the neoliberal decades. From World War II to 1980, the average rate of saving of households in the United States used to gravitate around 9 percent. During the neoliberal decades, it declined to almost zero. Thus, under the very likely assumption that savings were concentrated within upper income strata, this observation points to the fact that the income brackets that were traditionally savers spent more and more. At least to 2000, this is confirmed by a study of the Federal Reserve<sup>11</sup>, where it is shown that the decline of saving occurred within the 80-100 income fractile. There is no surprise in this finding since low incomes do not save much or not at all. (They can also spend more than their income thanks to borrowing.) Much research would be required to determine to what extent these spending trends were the outcomes of a “wealth effect” — the consequence of the rise of stock-market indices or the increase in the price

11. D. Maki, M. Palumbo, *Disentangling the Wealth Effect: A Cohort Analysis of the Household Saving in the 1990s*, Federal Reserve, Washington (2001).

of housing<sup>12</sup>. One can also surmise that significant shares of high (undeclared) income and, consequently, possible savings disappeared within tax havens or private-equity firms<sup>13</sup> managing the wealth of upper classes. The basic observation remains, however. The income of upper classes and their spendings increased tremendously.

The overall conclusion is blatant. The concentration of income distribution in neoliberalism to the benefit of high income did not cause sagging demand patterns. To the contrary, the period witnessed a spending spree. Lower income strata certainly suffered from “underconsumption” — not that they were not spending their income but that their consumption did not measure up to decent standards — but there was no macroeconomic lack of demand due to their low demand. This trend was much more than compensated by the spendings of upper income fractiles.

This spending spree is clearly illustrated in figure 6 where two measures of the spending of U.S. households are shown, one limited to consumption in the strict sense, and one including residential investment. Independently of the variable, spendings gained almost 10 percentage points of GDP between 1980 and 2006. The current crisis was rather a crisis of “overconsumption”, given the fraction of demand imported from foreign countries.

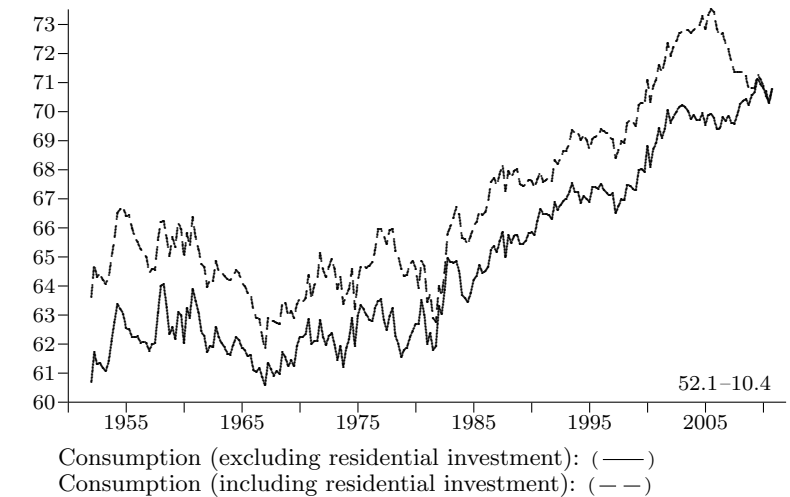
#### 4.1.4 Demand levels and globalization

Considering the entire group, the observation of the dramatic *spendings of U.S. households* during the neoliberal decades does not imply that the demand directed toward enterprises located on U.S. territory was sufficient to support *the activity of domestic enterprises* at adequate levels. These are two distinct issues to be carefully distinguished. Free trade is another major aspect of neoliberalism. A growing fraction of total demand was satisfied by imports. This was

12. The wealth effect is a complex mechanism in which both the levels of capital gains and their fluctuations are involved (M. Lettau, S.C. Ludvigson, “Understanding Trend and Cycle in Asset Values: Reevaluating the Wealth Effect on Consumption”, *The American Economic Review*, 94 (2004), p. 276-299). The effect of gains on housing was larger than on the stock market (E. Sierminska, Y. Takhtamanova, “Disentangling the Wealth Effect: Some International Evidence”, *FRBSF Economic Letter*, 2007-02 (2007), p. 1-3).

13. As long as the income remains within the entity, that is, is not paid out to its owner as dividends, it does not appear as the income of households but of the financial sector, unless capital gains are included in the wealth of households.

Figure 6 Demand: U.S. households (percent of GDP).



true of countries with low labor costs, such as China or Latin America, but also European countries such as Germany or Japan.<sup>14</sup> As is well known, the deficit of foreign trade went on growing throughout neoliberal decades to about 5 percent before the current crisis. The continuation of these deficits was only made possible by the towering position of the U.S. economy and the dollar in the world.

To sum up, considering production on U.S. territory, there was a deficit of domestic demand, but not because demand was low, not as a result of a bias in income distribution, but because of neoliberal globalization under U.S. hegemony. This chronic deficit of demand on U.S. territory created the necessity to boost the macroeconomy.

## 4.2 Deficient purchasing powers

The view that the share of labor diminished during neoliberal decades, and that this diminution created a structural lack of demand to be compensated by borrowing is recurrently put forward in the

14. Prior to the crisis, China accounted for about 16 percent of the imports of goods by the United States, and Germany for 18 percent. (About 30 percent of U.S. deficits were with China.)



litterature devoted to the crisis.<sup>15</sup> Two variables are compared, labor productivity and the hourly real compensation of labor, as in figure 7. (We add the hourly earning of production workers sometimes introduced as an additional proof of the stagnating purchasing power of workers.) The growing gap between the two lines (— and ----) suggests a declining share of wages.<sup>16</sup>

As is well known, the share of wages can be expressed as the ratio of the hourly real wage to labor productivity, multiplied by the ratio of the consumer price index, to the deflator of output:

$$\left( \frac{\text{Share of}}{\text{wages}} \right) = \frac{\text{Hourly real wage}}{\text{Labor productivity}} \left( \frac{\text{Relative}}{\text{prices}} \right)$$

What is omitted in the studies given referred to above is that prices matter in the determination of the share of wages, and that the ratio of the consumer price index to the price of the value added changed considerably, as shown in figure 8. The purchasing power of wage-earners can only be assessed taking account of the prices at which they purchase the goods and services. The investigation of problems of “realization” must be conducted in price terms, not real terms. Enterprises sell goods in dollars.

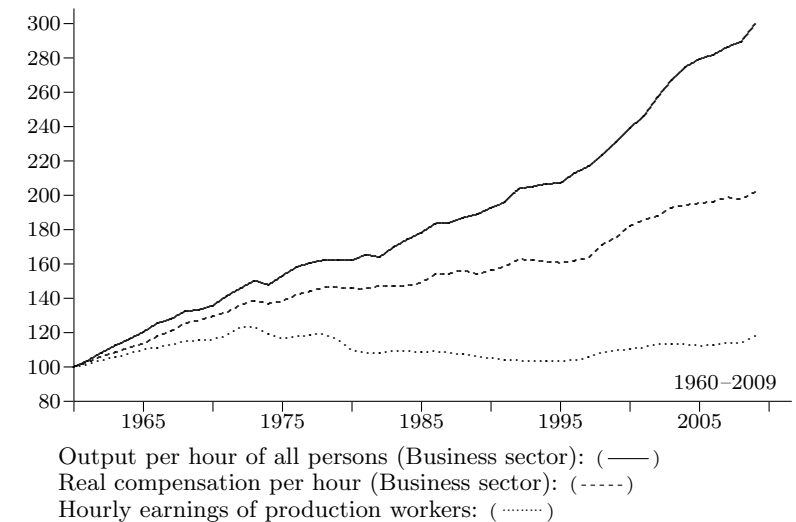
The two figures show approximately the followings: (1) The hourly real wage was multiplied by 2 between 1960 and 2009; (2) relative prices, by 1.5; and (3) Labor productivity, by 3. Thus, the share of wages remained about constant ( $2 \times 1.5 / 3 = 1$ ), as shown in Figures 4 and 9.

The problem here is not the choice of a specific unit of analysis. Actually, the trends of the shares of wages in various measures are practically identical. This is shown in figure 9 for four alternative measures, including the one we use in Figure 4.

15. For example, A. Valle, “La crisis estadounidense y la ganancia”, *Razón y Revolución*, 18 (2008), p. 79-93 and D. Kotz, “The Financial and Economic Crisis of 2008: A Systemic Crisis of Neoliberal Capitalism”, *Review of Radical Political Economics*, 41 (2009), 2, p. 305.

16. “If output per hour rises faster than real hourly earnings, this implies a shift of income from labor to capital.” (D. Kotz, *ibid.*, p. 309). The “rise in profits relative to wages” is seen as a stylized fact typical of neoliberalism (*ibid.*).

Figure 7 Labor productivity and compensations of labor (indices, 1960=1): U.S. business sector



The business sector is the sum of the corporate and noncorporate sectors (mostly sole proprietors and partnerships).

Figure 8 Ratio of the consumer price index to the price of value added within the business sector

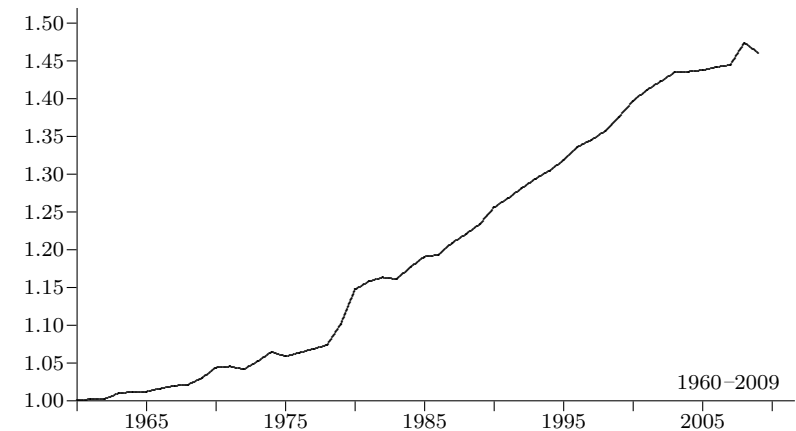


Figure 9 Labor shares in various sectors



### 4.3 Compensating for stagnating wages and boosting demand

#### 4.3.1 The lending and housing booms

Two types of explanation are given, of the lending boom, sometimes in combination. A first line of argument pins the boom on particular aspects of the trends of the income and wealth of households, the stagnating purchasing power of wages or a wealth effect. A second explanation is the requirement to stimulate the macroeconomy on the part of monetary authorities:

1. *Households.* Often, a link is directly established between the frustration of wage-earners after years of stagnating or declining purchasing powers and the rise of borrowing. This explanation points specifically to the fractions of borrowers belonging to the lower income strata, as in subprime mortgages, although a large share of borrowing originated from rather well-off households. (In studies in which this trend is identified, a relationship is also established with the upward trend of the profit rate from the early 1980s, as stagnating

or diminishing wages are seen as a major component of the neoliberal successful strategy intending to restore profitability levels.<sup>17)</sup>

But the rise of borrowing is also frequently explained in relation not to stagnating wages but, on the contrary, to a wealth effect. This effect may result from the rising price of housing or from rising stock-market indices. In the present section, we only consider the first such link.

Capitalism is intrinsically prone to cumulative processes such as housing (or stock-market) booms. The wave of residential investment causes the rise of the prices of houses (the “bubble” proper), which, in turn, feeds the growing wave of borrowing as houses are used as collaterals.<sup>18</sup> In the case of the current crisis, lending institutions encouraged households to borrow more, given the upward trend of home prices. Reference is made in a number of studies to a specific “wealth effect” inherent in such cumulative mechanisms. Within such cumulative processes, it is difficult to disentangle reciprocal directions of causation from lending to prices, and from prices to lending.

There are always candidates to borrowing, maybe more after decades of deficient purchasing powers on the part of one fraction of households, or as an effect of a dramatic enrichment for another fraction, but the lending boom was allowed to develop and, even, stimulated by daring lending procedures. There was no serious attempt at stopping the rising tide, except by increasing the Federal Funds rate when the recovery from the recession of 2001 had been obtained. Both interpretations ignore the fact that it is the function of lenders and of the central bank to define the standards for borrowing and adjust interest rates and regulation to borrowing trends.<sup>19</sup> The issue must be raised of the causes of this tolerance, to which we now turn.

17. This is part of the interpretations given, for example, in F. Moseley, *The US Economic Crisis: Underlying Causes and Long-Term Solutions*, Mount Holyoke, Working paper (2010); A. Shaikh, “The First Great Depression of the 21st Century”, *Socialist Register*, Forthcoming; and A. Valle, “La crisis estadounidense”, *op. cit.* note 15.

18. David Kotz provides interesting estimates of the “gross equity extracted” due to the rise of home prices (D. Kotz, “The Financial and Economic Crisis”, *op. cit.* note 15), which illustrate this process.

19. Money is not “endogenous” but “co-determined” in the confrontation between nonfinancial and financial agents, including the central bank (G. Duménil, D. Lévy, *Bridging the Gap between Kalecki’s Words and the Modeling of a Monetary Macroeconomy*, Paris-Jourdan Sciences Économiques, Paris (2011)).

2. *The macroeconomy.* Concerning the second explanation, the stimulation of the macroeconomy, there is a rather broad agreement among the analysts of the current crisis that the mortgage wave during the last decade preceding the crisis was a necessary component of the stimulation of the macroeconomy.<sup>20</sup> The recovery from the recession of 2001 was only made possible by the tremendous increase in mortgages, which financed residential investment and consumption. In this respect, we consider crucial the fact mentioned earlier that, as is well known, in an open economy, a fraction of the stimulation of the macroeconomy is exported to the countries from which the goods are imported. As a result of neoliberal trends in the United States, it was increasingly so.

Disagreements arise concerning the diverging interpretations given of the mechanisms by which the stimulation was performed. The engine of the housing boom was not so much an interest rate policy. As soon as the recovery from the recession of 2001 was ensured, the Federal Reserve increased its interest rate to pre-crisis levels. The problems were downstream: (1) This rise in the Federal Funds rate was not fully reflected in the rates charged by lenders for reasons linked to neoliberal globalization<sup>21</sup>; (2) The wave of financial innovation, notably the relaxation of lending criteria, private-label securitization, CDOs, CDSs, and the like, was the main factor. There was a growing “tolerance” toward the new dangerous practices that made the boom possible; they were even welcomed. This is convincingly described in the *Financial Crisis Inquiry Report*, whose conclusions were published at the beginning of 2011. This tolerance can be imputed to various categories of phenomena but, in the last instance, the main reason was that the boom was *necessary* given the narrow range of alternative policies proper to neoliberalism. It was the neoliberal response to the shift of demand toward the rest of the world in the context of high demand levels.

#### 4.3.2 Stock-market Keynesianism

A mention must be made here of the thesis put forward by Robert Brenner that the stock-market boom, which he considers as one important root of the stimulation of demand, was the outcome of a

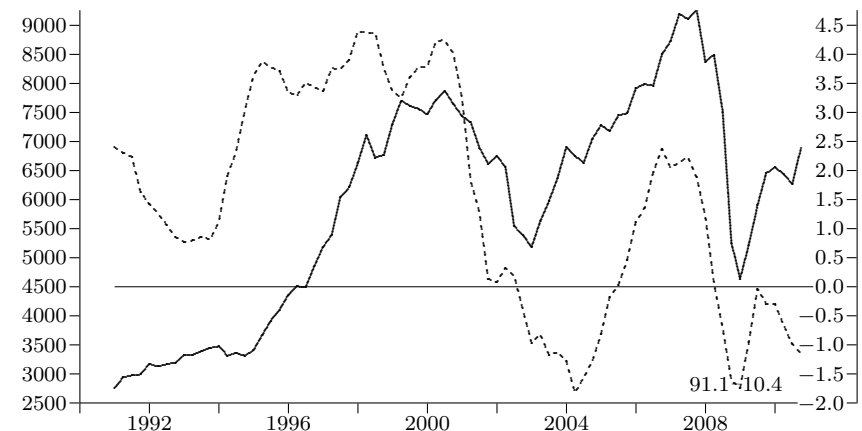
20. So, it is difficult to only pin the crisis on a “loose monetary policy”, in the terminology of Costas Lapavistas (K. Lapavistas, “The Roots of the Global Financial Crisis”, *Development Viewpoint, School of Oriental and African Studies*, 28 (2009), p. 1-2).

21. G. Duménil, D. Lévy, *The Crisis of Neoliberalism*, *op. cit.* note 1, ch. 14.

deliberate policy on the part of the Federal Reserve.<sup>22</sup> The lever in the hands of the Federal Reserve was the interest rate, which was, we are told, deliberately diminished, notably after the recession of 2001. Brenner uses the phrase “Stock-market Keynesianism”.

This interpretation rests on various questionable assumptions. First, the rising stock-market indices are viewed as a crucial factor in the stimulation of the growing demand of rich households (the wealth effect). A second hypothesis is that the variations and levels of stock-market indices are determined, at least, strongly impacted, by the values of interest rates. Third, there was supposedly such a deliberate policy on the part of the Federal Reserve.

Figure 10 The New York stock-exchange composite index and the Federal Funds rate



It is hard to find empirical justification for this contention. The upward trend of the stock-market index from the beginning of neoliberalism was established in the context of dramatically increased interest rates, *not diminished rates*. Both developments contributed to the restoration of the income and wealth of upper classes, the objective of neoliberalism. Concerning the latter years, Figure 10 shows the New York stock-exchange composite index (—) and the Federal

22. R. Brenner, What is Good for Goldman Sachs is Good for America: The Origins of the Current Crisis, Robert Brenner Center for Social Theory and Comparative History, UCLA (2009).

Funds rate (----) during the two decades prior to the crisis. (The stock-market index has been deflated by the GDP deflator for legibility, and the real interest rate is considered.) As is well known, the Federal Funds rate increases during periods of recovery and declines during periods of recession. During the stock-market boom that paralleled the boom of investment technologies in the second half of the 1990s, the Federal Funds rate was maintained at a high level. When the economy entered into recession and the stock-market bubble burst, the Federal Funds rate was diminished, a standard behavior in the conduct of monetary policy. The study of monetary policy during those years reveals to what extent the restoration of the general level of activity after the recession of the early 2001 was difficult to obtain, and how the later rise of the Federal Funds rate failed to tame the housing boom, an object of complaint on the part of Alan Greenspan. The Federal Reserve was fighting to control a situation that neoliberal domestic (financial deregulation) and international (financial globalization) trends had rendered impossible to manage, not monitoring demand through stock-market indices.

## 5 - A profitability crisis: I - Historical trends

A first approach considers the historical trend of the profit rate and its levels since World War II. Economists imputing the crisis to the low levels of the profit rate contend that there was no actual recovery of the profit rate after its decline during the 1970s. The section discusses both the calculation of profit rates and their impacts on accumulation rates.

### 5.1 Why does profitability matter?

#### 5.1.1 Three alternative mechanisms

A preliminary issue in the investigation of the relationship between profit rates and crises is the determination of the mechanisms by which profitability impacts the economy.

A first common answer is because of the effect of the profit rate on capital accumulation. Larger profit rates allow for faster rates of growth of fixed capital, since they stimulate investment. Three distinct mechanisms are involved:

1. *Inducement.* Large profit rates “motivate” capitalists and/or enterprises in their propensity to invest. This first mechanisms plays, notably, a central role in Marx’s analysis of competition and the formation of prices of production. Capitalists invest more in industries where profit rates are larger. Symmetrically, low profit rates discourage investment.

2. *Financing.* Large profits contribute to the financing of investment and ensure the continuation of the activity of the enterprise as sufficient cashflows are generated. (When its profitability declines, an enterprise may go bankrupt for objective reasons because of a shortage of liquidities.) The profit rate is a very appropriate variable in the assessment of the circumstances governing financing, since the size of profits is compared to the amounts of capital needed to support the activity of the enterprise.

3. *Stability.* At a more sophisticated level of analysis, we believe profitability also impacts the stability of the macroeconomy as in section 6.<sup>23</sup>

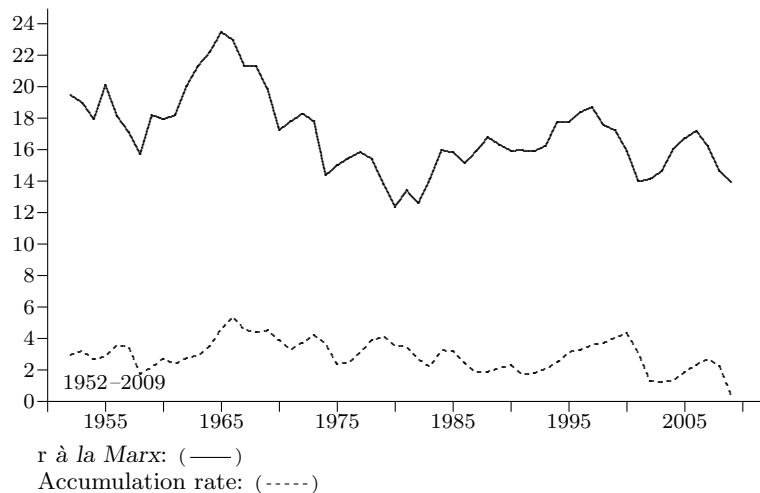
In our opinion, the first of the three mechanisms above plays a central role in the comparison between various investment opportunities. The effect on accumulation is less obvious when the macroeconomy is considered. (Other more complex mechanisms are involved, for example, low profit rates may determine inflationary trends, or large profit rates may create circumstances more favorable to the rise of wages.) Concerning investment, we believe the second mechanism, financing, is the crucial mechanism, since it is hard to imagine that capitalist classes would direct their spendings comparatively more toward consumption than investment, as a response to low profitability levels.

23. G. Duménil, D. Lévy, “Why does Profitability Matter? Profitability and Stability in the U.S. Economy since the 1950s”, *Review of Radical Political Economy*, 25 (1993), p. 27-61.

The crucial issue is, however, the identification of the appropriate measures of the profit rate that impact accumulation rates in the various respects above.

### 5.1.2 Profitability and accumulation

Figure 11 Profit rate à la Marx and the rate of accumulation: U.S. nonfinancial corporations



The profit rate à la Marx is the ratio of profits in a broad definition (total income minus labor compensation) to the stock of fixed capital at replacement cost. The rate of accumulation is the ratio of net investment to the same measure of the stock of fixed capital (the growth rate of the stock of fixed capital).

The first variable in Figure 11 is a profit rate, which we denote as “à la Marx”, for the corporate nonfinancial sector. Profits are total income minus the compensation of labor, and capital, the stock of fixed capital at replacement cost. Thus, profits are the sum of all taxes, interest and dividends paid, and the profits retained by enterprises. It is the definition closest to Marx’s surplus-value, although all labor cost is subtracted instead of only the cost of productive labor. The second variable is the rate of accumulation of fixed capital, that is, the ratio of net investment (at current cost) to the same measure of capital. The figure strikingly illustrates the distance between the

two variables. Profit rates in this measure are about five times larger than the rate of accumulation.

The question must, therefore, be raised of the variables involved in this distance, which may be as or, even, *more* important to account for the levels and trends of accumulation. To this end, we gradually subtract various components of profits from the above broad measure.

### 5.1.3 Alternative measures

The profit rate à la Marx is the first (—) of the five measures in Figure 12. In the second variable (.....), production taxes have been subtracted from the broad measure of profits in the previous variable.<sup>24</sup> In the third variable (— —), all taxes have been subtracted. (Profits still include net interest paid.<sup>25</sup>) In the fourth measure (-----), interest is taken out of profits (“net interest”, that is, interest paid minus interest received). Correspondingly, enterprises own funds<sup>26</sup> (or shareholders equity) must be substituted for the stock of fixed capital in the denominator. The lowest measure (----) is the rate of retained profits, derived from the above, but after dividends have been paid out (dividends received minus dividends paid).

Two important results follow:

1. It appears clearly that, using an *after-tax* estimate of profits (— —) (still including interest), the average profit rate after 2000 was larger than during the average of the 1950s and 1960s. A complete restoration, or more, is observed.
2. Both the levels and fluctuations of the rate of retained profits tightly match the profile of the rate of accumulation in Figure 11. This latter finding is confirmed in Figure 13, where the rate of retained profits (—) is directly compared to the rate of accumulation (-----). The tight correlation between the two variables mirrors the self-financing of investment by corporations. (Nonfinancial corporations resort to limited extent to borrowing and the issuance of new shares to finance their investment.)

24. In this measure, profits are denoted as “net operating surplus” in national accounting frameworks.

25. While “after-tax profits” in national accounting are determined after paying interest.

26. Total assets minus debt.

Figure 12 Five alternative measures of profit rates: U.S. nonfinancial corporate sector

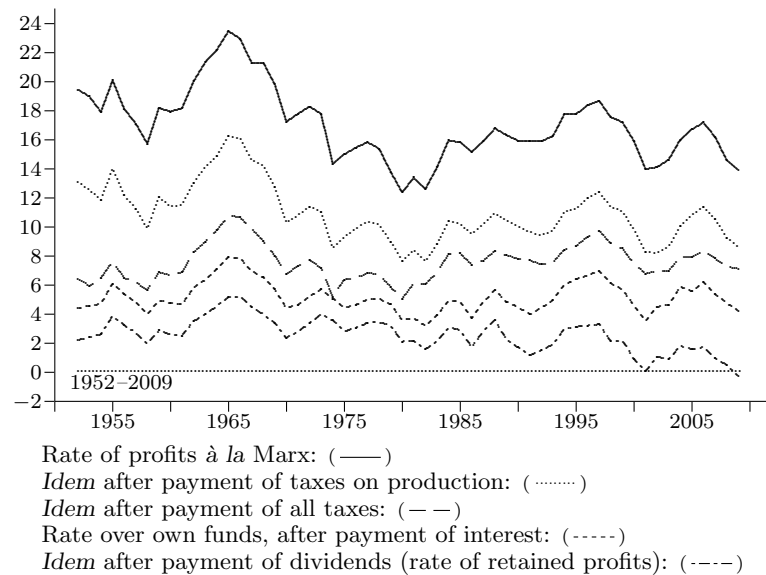
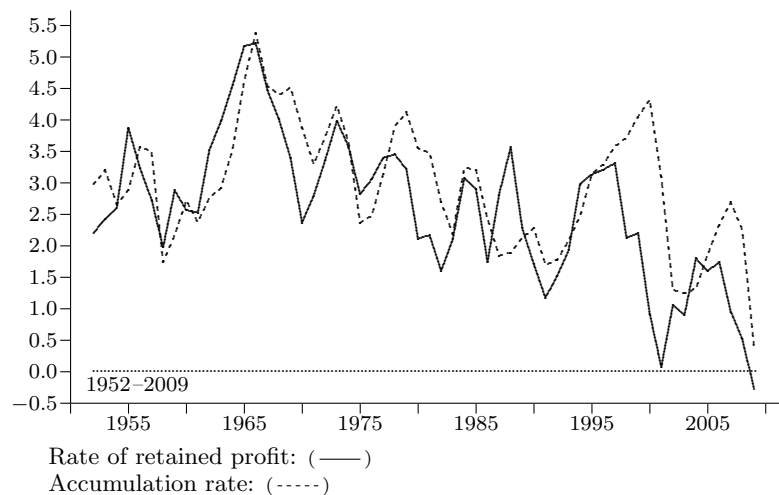


Figure 13 The rate of retained profits and the rate of accumulation: U.S. nonfinancial corporations



## 5.2 Low “inducement” by historical standards? A widespread misreading of data

A preliminary remark is that there is no clear assessment by Marxist economists of the distance that separates profit rates à la Marx and rates of accumulation.

Within studies in which, often implicitly, the emphasis is on “inducement”, there is typically no sufficient discussion of the profit rate to be considered. Why would the profit rate à la Marx determine investment behaviors when enterprises must pay taxes?

In many studies a profit rate after paying production taxes is considered. But it is hard to understand why profit taxes are not taken out. The consequence is dramatic since, in the first decades after World War II, the second component of taxation, profit taxes, was strongly diminished. This is shown in the second variable (.....) in Figure 12, where only taxes on production are subtracted. Using this latter measure, it is possible to contend that there was no recovery of the profit rate after the 1970s.

The distinct profiles of the two categories of taxes since World War II are shown in Figure 14. The variables are the production taxes and profit taxes paid by nonfinancial corporations as percentages of the value added of the sector. While the share of production taxes remained about constant at about 10 percent, the share of profit taxes was dramatically reduced from World War II to 1982, from 10 percent to 3 percent.

We consider the use of profit rates in which only production taxes are subtracted as misleading. This is, however, the most common viewpoint.<sup>27</sup> A well-known example of this mistake is Robert Brenner’s analysis of the crisis.<sup>28</sup> The central thesis is that the profit rate did not recover from its decline during the 1970s<sup>29</sup>, and that the U.S. economy performed badly during the following decades (with recurrent bubbles).

27. R. Brenner, What is Good for Goldman Sachs, *op. cit.* note 22; F. Moseley, The US Economic Crisis, *op. cit.* note 17; A. Shaikh, “The First Great Depression”, *op. cit.* note 17; F. Xie, A. Li, A. Zhu, “Marxist Theory of Crisis and the Rate of Profit in US Economy: 1975-2008”, *Social Sciences in China*, Issue 5.

28. R. Brenner, What is Good for Goldman Sachs, *op. cit.* note 22.

29. We will not engage here in the discussion of the underlying causes of the decline of the profit rate à la Marx from the mid-1960s to the early 1980s, Marxian (composition of capital and wages) or Smithian (competition).

Figure 14 The shares of production and profit taxes in total value added: U.S. nonfinancial corporations (percent, yearly)

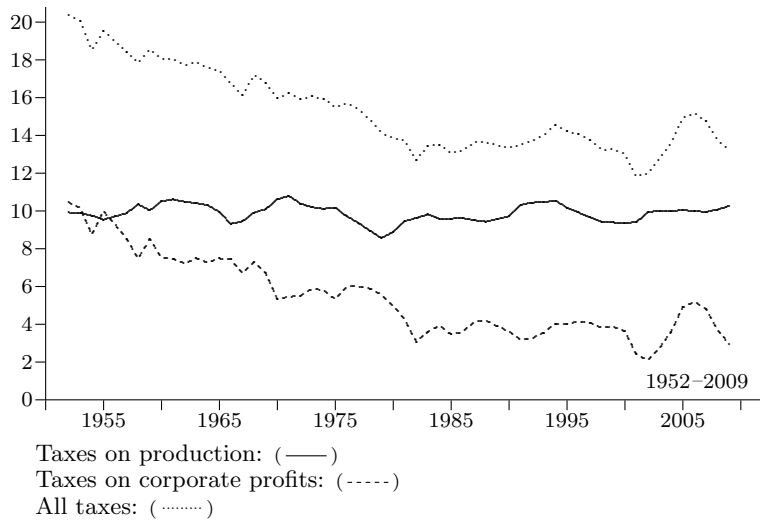
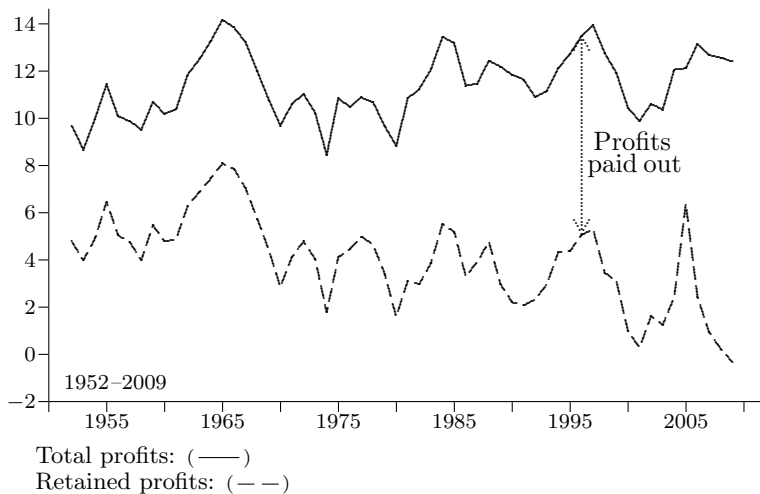


Figure 15 Shares of total after-tax profits and retained profits in total income: U.S. nonfinancial corporate sector (percent).



Total profits are profits after all taxes and prior to the payment of interest and dividends.

The case of interest is more ambiguous. If large interest rates encroach on profits, one can contend that the channels of financing of enterprises are inappropriate. It is also clear, however, that borrowing cheap stimulates investment (a leverage effect). (This does not change the fact that, when, interest is subtracted from profits, enterprises own funds must be substituted for the stock of fixed capital as in Figure 12 -----.)

## 5.3 Financing investment

### 5.3.1 A growing gap

If the viewpoint is “financing”, as we judge more adequate, it is necessary to further analyse the roots of the widening gap between the after-tax profit rate and the rate of retained earnings. (We abstract here from the changes in the measure of capital.) This widening is obviously not the effect of the trends of technology and labor costs as in Marx’s analysis of the declining profit rate, but the expression of *neoliberal trends*, that is, the rising propensity to distribute capital income as interest and dividends.

This is straightforwardly illustrated in Figure 15, where profit shares are considered instead of profit rates (since the measure of capital is not involved in the discussion here). The first variable (—) is the share of total after-tax profits in the total income of all U.S. nonfinancial corporations. The second variable (----) is the ratio of retained profits, that is, the profits that are neither paid as interest or dividends, to the same income. The growing distance is the combined effect of the large real interest rate to 2000 and the lavish distribution of dividends. Both trends are typical of neoliberalism.

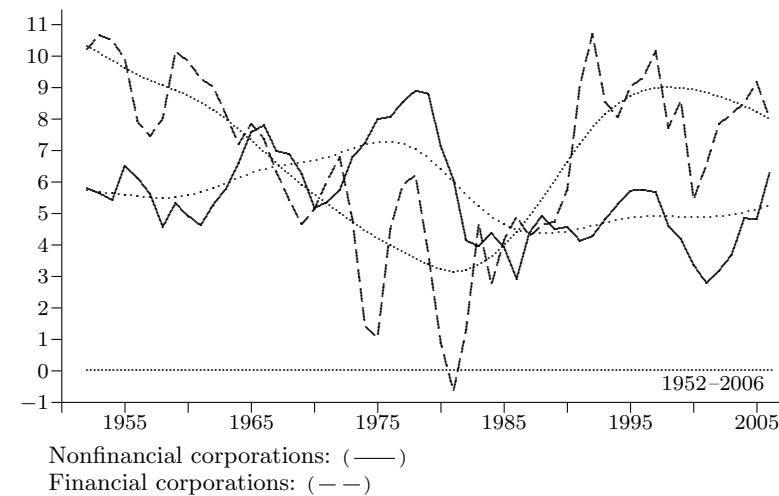
At issue are a *corporate governance* targeted to stock-market indices, *neoliberal macro policies*, and *neoliberal globalization*. Concerning governance, neoliberalism dramatically increased the distribution of profits as dividends. Considering nonfinancial corporations globally, they stopped to issue new shares (what they were doing to very limited extent) and began an equally spectacular process of buybacks of their own shares to the end of the maximization of stock-market indices. (These various aspects are documented in “The Crisis of neoliberalism”.) Concerning policies, it is very well known that the real interest rate was sharply increased at the beginning of the 1980s. One can finally mention the international component of neoliberalism, the free mobility of capital and, for the manufacturing sector

(about 10 percent of total value added in 2010), free trade. International competition was severe concerning the production of goods, and the inducement was strong to invest in the rest of the world. But this means other channels of investment, not desperate distribution of excess profits.

### 5.3.2 Inflation: Income transfers

During the second half of the 1960s and the 1970s, the declining trend of the profit rate and the stimulative policies of the period provoked a major inflationary wave. Since inflation devalues debts and some financial assets, these developments altered profit rates.

Figure 16 Profit rates: U.S. nonfinancial corporations (percent).



In this measure of profit rates, profits are determined after paying interest and taxes. A correction is made of the devaluation of financial assets and liabilities by inflation (or the devaluation of the net debt). Capital gains are considered. (Due to the large fluctuation observed, this latter component has been smoothened.)

Important differences are observed between nonfinancial and financial enterprises. The assessment of the comparative effect is difficult. Figure 16 presents, however, estimates of the profit rates of the nonfinancial and financial sectors, taking account of this impact of inflation. The effect was significant. The data shows that, as could

be expected, during the 1970s, it strongly worked in favor of the nonfinancial corporate sector and to the detriment of the financial corporate sector as manifest in the hierarchy of profit rates.

As contended earlier, enterprises basically self-finance their investment, but borrowing is involved in the financing of the components of assets (inventories, credit to customers, liquidities), besides fixed capital. Paying back a devalued debt alleviates the burden represented by the financing of these other components of total capital (total assets) by borrowing. This was particularly true during the wave of inflation of the 1970s. The effect was a diminished flow of interest. Thus, these transfers due to inflation allowed enterprises to preserve their retained profits and self-finance comparatively larger investments.

### 5.3.3 Self-financing accumulation: A broad diversity of mechanisms

Overall, three transformations occurred between the 1960s-1970s and neoliberal decades: (1) The earlier alleviation of profit taxes was interrupted after 1980 (though not reversed); (2) The policy aiming at the end of inflation dramatically reduced the income transfer to the benefit of nonfinancial corporations; and (3) Large real interest rates to 2000 and lavish distribution of dividends widened the gap between after tax profits and retained profits.

Thus, the original movement of the profit rate à la Marx did not materialize in the measures of the profit rate that allows for the financing of investment, the rate of retained profits. Paradoxically, due to the three mechanisms above, the low levels of accumulation were observed during the neoliberal decades rather than during the 1970s, when the profit rate à la Marx was at its lowest. But developments such as the wave of inflation and the alleviation of taxation (at least during the 1970s) were caused by the underlying trend of the profit rate à la Marx. Between such primary measures and the assessment of their consequences, sufficient concrete analysis is necessary.

## 5.4 From profits to accumulation: Directions of causation

A basic observation in the previous sections is that the rate of retained profits is practically equal to the rate of accumulation. A difficult issue in the assessment of the relationship between the two variables is the direction of causation. Our interpretation is that the



rate of retained profits determines the rate of accumulation, as investment is approximately self-financed. More specifically, once taxes and interest have been paid, corporations “arbitrate” between two possible uses of profits, distribution as dividends or the self-financing of investment. Our view is that the rules inherent in neoliberal corporate governance caused a shift in favor of dividends flows and to the detriment of investment. An alternative interpretation is that the rate of accumulation is limited by investment opportunities judged in attractive, notably as a result of deficient demand, and that corporations distributes what is left.

Michel Husson (as is common within Marxian/Keynesian approaches) believes that corporations, first, decide on investment and, then, distribute as dividends all profits above the levels required by the self-financing of this investment. In other words, corporations distribute as dividends profits for which they have no use.

In Husson’s view, investment *is* or *should be* “induced” by the levels and trends of the profit rate à la Marx, but other determinants are involved. The explanation is, finally, the *lack of demand* (itself due to a new pattern of income distribution detrimental to wage-earners), or more complex forms of “mismatch” between supply and demand, as investment does not respond positively to the new upward trend of profit rates. This is the way Husson interprets overaccumulation. This view is combined to the thesis that profits in search of investment opportunities, for the reason above, are directed toward the financial sector.

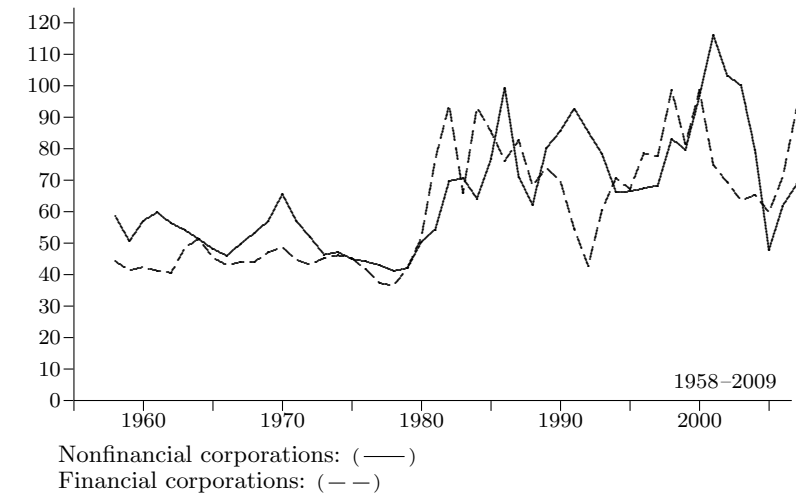
Since Husson considers that the payment of capital income is a *consequence* of the low levels of investment, not a *cause*, he sees in our interpretation a mere “tautology”:

Duménil and Lévy explain that “the rate of accumulation is commanded by the rate of retained profits”, and that “the increase of the profit rate prior to the payment of interest and dividends was confiscated by finance”. Indeed the scissors between profits and accumulation disappear when this rate of retained profits is considered. But the explanation is tautological, and a curious conception of the dynamics of capital and the general rate of profit, which is normally the determinant of accumulation, independently of its distribution among the various categories of capitalism.<sup>30</sup>

30. M. Husson, *Le dogmatisme n’est pas un marxisme*, Nouveau Parti Anticapitaliste, Août (2009), p. ?.

Abstracting from the limiting impact of demand, the last sentence clearly sets out Husson’s approach to investment. It is the rate of profit à la Marx which determines investment “independently of its distribution”. This is equivalent to contending that taxation does not impact on investment, or that interest paid has also no limiting effect.

Figure 17 Share of dividends in after-tax profits: U.S. financial and nonfinancial corporations (percent, yearly)



Net interest paid are also subtracted from profits.

A feature common to these developments—which contradicts Husson’s interpretation—is the *sudden character* of the transformations, almost immediate. Ignoring the effect of taxation, Husson’s supposed chain of decisions by corporations—first, investment, then, the payment of what remains as capital income—cannot account for the payment of interest. Only the distribution of dividends is potentially involved.

If the new trends in the distribution of dividends, proper to neoliberalism, had been established as a consequence of deficient demand levels, *the transformation would have been gradual*, not sudden, as stated above. This is illustrated in Figure 17. The variables are the shares of after-tax profits (after the payment of interest) within U.S. nonfinancial and financial corporations. The sudden

character of the change is striking. Interestingly, exactly the same development occurred simultaneously in France, an “institutional” change, not the consequence of alleged changing income patterns to the detriment of wage-earners impacting on demand. The same suddenness was observed concerning buybacks, with also dramatic effects.<sup>31</sup> The profiles observed do not match Husson’s interpretation.

### 5.5 A compensating impact of declining interest rates?

Anwar Shaikh’ assessment of profitability trends and his judgement concerning growth performances during the neoliberal decades are thoroughly distinct from Brenner’s analysis, actually, the exact opposite.<sup>32</sup> Contrary to the assessment of the declining trend of capital accumulation as in Figure 13, a view shared by most Marxist economists, the neoliberal decades are described as a period of *economic boom* (the “1982-2007” boom, in the figures of the study). These favorable economic performances are associated with a *restoration of profit rates* after the crisis of the 1970s in Shaikh’s favorite measure of profit rates (none of the above).

We are told that the relevant variable to account for accumulation rates is the “rate of profit-of-enterprise”. The interest capitalists/enterprises would pay on their total stock of capital at the on-going rate of interest (on 3-month Treasury bills) are subtracted from profits measured prior to the payment of interest. The capital stock is fixed capital at replacement cost.<sup>33</sup> One can, equivalently, determine a profit rate prior to the payment of interest and subtract the interest rate. According to Shaikh, this difference,  $r - i$ , provides an estimate of the specific inducement for capitalists to engage into active investment rather than passive lending, a viewpoint common to Marx and Keynes:

31. Figure 4.4 in G. Duménil, D. Lévy, *The Crisis of Neoliberalism*, *op. cit.* note 1.

32. A. Shaikh, “The First Great Depression”, *op. cit.* note 17.

33. Although the notion of profit of enterprise clearly belongs to Marx’s analytical framework in Volume III, we are not aware of the reference to the phrase “rate of profit of enterprise”. The profit of enterprise is determined in Marx’s analysis as profits minus the interest actually paid, although Marx contends that capitalists tend to pay to themselves wages as “workers” and interest (or dividends) as owners like the money capitalists which contribute passively to financing.

The classical economists argued that it is the difference between the profit rate ( $r$ ) and the interest rate ( $i$ ) which is central to accumulation. The reason is that profit is the return to active investment while the interest rate is the return to passive investment [...] Marx argues that it is the difference between the two rates which he calls the rate of profit-of-enterprise ( $r-i$ ) that drives active investment. Keynes says much the same thing [...].<sup>34</sup>

In such a calculation of the rate of profit-of-enterprise, it is rather puzzling to subtract the nominal rate of interest. In the measure of the profit rate used, the ownership of fixed capital first ensures the preservation of the investment against inflation, as is consistent with a measure of the profit rate at replacement cost. A given value of the profit rate provides a remuneration “above” this preservation. The contrary is true concerning a nominal interest rate. This correction can be easily performed, substituting a real interest rate for the nominal rate in the difference  $r - i$ , but this is not our main point here. (Another puzzling aspect is the choice of a short-term interest rate instead of a long-term rate to be compared to real investment.)

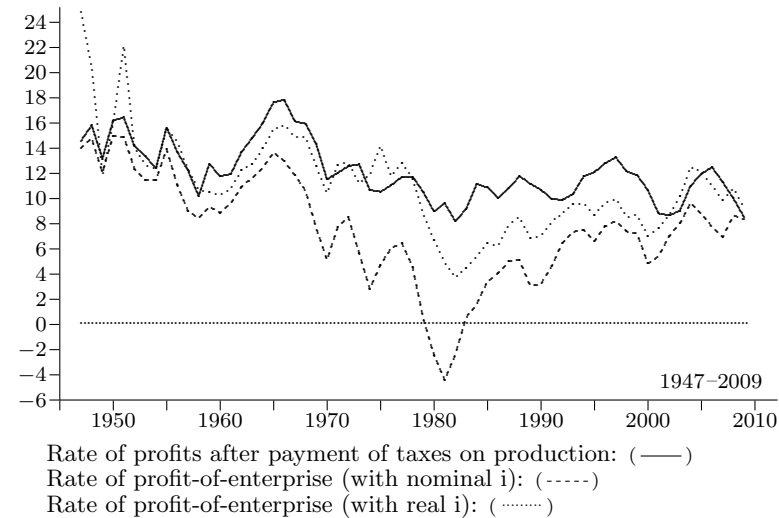
In Figure 18, the first variable (—) is a measure of the profit rate after the payment of taxes on production, but still gross of net interest paid as in Shaikh’s original calculation (also ..... in Figure 12). The second variable (-----) is this profit rate minus the nominal rate of interest (on 3-month Treasury bills). This is the rate of profit-of-enterprise as calculated in the study. The profile observed reflects (inverted) the movement of the nominal interest rate, a pyramid peaking in the early 1980s. In this measure, the rate of profit-of-enterprise became strongly negative (–5 percent in 1981). In the third measure (.....), we repeat the calculation, using the same interest rate, but the real rate (the nominal rate minus the rate of inflation) is used, a measure that we judge more conform to Shaikh’s project.

In the two measures of the rate of profit-of-enterprise, a decline is observed during the 1970s, but from the early 1980s onward an upward trend is established (more spectacular in the original measure with nominal interest rates). The two variables remain consistently low, and the levels during the years preceding the crisis are not high by historical standards.

Figure 19 shows the two estimates of the rate of profit-of-enterprise as in Figure 18, and the rate of accumulation within the nonfinancial corporate sector as in Figures 11 and 13. As could be expected,

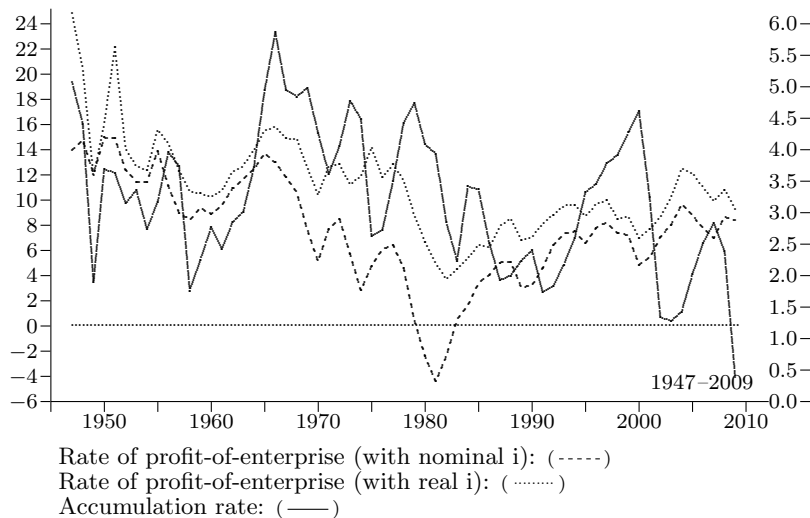
34. A. Shaikh, *ibid.*, p. ?.

Figure 18 Alternative measures of the rate of profit: Nonfinancial U.S. corporations



The two first variables are presented in Shaikh's paper, a standard measure in which production taxes have been deducted from profits but not interest paid, and the rate of profit-of-enterprise derived from the former from which the nominal interest rate (on 3-month Treasury bill) has been subtracted. The third variable is the same as the latter but we subtract a real interest rate instead of a nominal interest rate.

Figure 19 Rates of profit-of-enterprise and the rate of accumulation: Nonfinancial U.S. corporations



The two first variables are presented in Shaikh's paper, a standard measure in which production taxes have been deducted from profits but not interest paid, and the rate of profit-of-enterprise derived from the former from which the nominal interest rate (on 3-month Treasury bill) has been subtracted. The third variable is the same as the latter but we subtract a real interest rate instead of a nominal interest rate.

the rate of accumulation is much lower. It is measured on the right vertical axis and the scale has been adjusted to make the comparison easier:

1. As already stated, with the exception of the second half of the 1990s, the profile of the rate of accumulation (—) does not confirm the hypothesis of a neoliberal boom.
2. It is not clear that the rate of profit-of-enterprise is the most appropriate measure of the profit rate to account for the levels and fluctuations of the rate of accumulation or, equivalently, the hypothesis of a causal relationship from profit rates in this measure to accumulation appears unlikely. The sharp decline in the rates of profit-of-enterprise during the 1970s is not apparent in the movements of the rate of accumulation, only a steady downward trend. Subsequently, the upward trends in the rates of profit-of-enterprise did not materialize in rising accumulation rates (again, with the exception of the second half of the 1990s). Does Shaikh impute the alleged neoliberal boom to the rising trend of the rate of profit-of-enterprise instead of its value,  $\rho(r - i)$  rather than  $r - i$ ? Anyhow, the boom is not there.
3. In Shaikh's interpretation, the crisis is due to the end of the decline of the interest rate, when it became almost null: "The fall in interest rates and the rise in debt which fueled the boom had reached their limits.<sup>35</sup>" One would, therefore, expect a significant decline in the profit-of-enterprise prior to the crisis reflecting the end of the interest rate bonanza. But in the estimates, no such decrease of the profit rate is evident, although the downward trend of the interest rate had reached its limits. Both the rise of the two profit rates and the downward trend of accumulation are continued after 2000.

### 5.6 Price effects in alternative measures of profit rates

There is a broad consensus among Marxist economists concerning the measure of profit rates in relation to national accounting categories, as evident in the comparison of the various calculations considered so far. Even beyond the desire to explain the current crisis by profitability levels, there still is, however, a nostalgia concerning the identification of a smoothly declining profit rate in a certain definition, a confirmation of the march of capitalism to its unescapable

35. A. Shaikh, *ibid.*, p. 45.

collapse. Fiddling with definitions is still part of the game.<sup>36</sup> A second problematic issue is the temptation to use “true” Marxian categories, instead of “neoclassical” data!

### 5.6.1 *Historical, constant, and replacement costs*

Series of fixed capital at replacement costs must be used instead of series at “historical costs”, that is, the costs at which enterprises purchased the components of fixed capital during the various earlier years in which the investments were made. In a world of upward trends of prices, series at historical costs underestimate the value of the capital stock. They do not mirror the profit rate that can be expected of the continuation of investment in a given line, since the new investments would be made at prices prevailing in the given year not prices of the past.

One may wonder whether enterprises are victims of this bias. In a world of rising prices, do they systematically overestimate their profit rates due to the survival of components of fixed capital whose value is measured at historical costs. We contend they will shortly discover real costs, at on-going prices, when they make investment decisions. Should they go on investing in 2005 on account that the investment would have been highly profitable at nominal 1970 prices? If they decide on the distribution of dividends on the basis of a measure of profits ignoring that depreciations are estimated at historical cost, they will shortly feel the brunt, in the short run, of a liquidity squeeze and, in the long run, of the requirement to collect capital to compensate excess dividend distribution (compared to their actual profits) and be able to continue their activity, at least, at on-going levels.

National accounting frameworks provide estimates of fixed capital at replacement costs, that is, the costs of supposedly equivalent existing structures and equipment that could be purchased during the year under investigation. Thus, the capital stock at replacement costs in a given year is derived from a series of stocks of still not discarded capital measured in physical terms. The set of prices of the

36. An example is Andrew Kliman’s work (A. Kliman, *The Persistent Fall in Profitability Underlying the Current Crisis: New Temporalist Evidence*, Pace University, Working paper (2009)). It is problematic in two respects: the notions used and the calculations with which we disagree. There is no need to document this last point here, since this can easily be checked and has already been shown in M. Husson, *Les coûts historiques d’Andrew Kliman*, Document de travail, Décembre (2009). Consequently, even abstracting from the relevance of the notions, the results are not convincing.

year considered is applied to this series. Thus, the series of capital stocks at, say, 2005 replacement costs is an estimate of the existing capital stock using the 2005 set of prices. Obviously, there would be no meaning in the consideration of the capital stock in 1950 using 2005 prices. (In 1950, capitalists or enterprises were not affected in the slightest manner by these future prices and, in the same way, capitalists or enterprises in 2005 do not care to the slightest extent about what would have been the price of fixed capital in 1950 using 2005 prices, except to the extent components of this stock of capital are still in use and must be replaced.) Thus, historical series (as since World War II to the present) of capital stocks at *constant prices* are irrelevant. The calculation at current prices, as in replacement costs, estimates the existing components of the stock of capital using the (constant) prices *proper to each year*.

### 5.6.2 *“Marxian” categories*

Should Marxist economists measure profit rates in labor values? We believe they must not, for two reasons.<sup>37</sup> A first straightforward reason is that the study of profit rates is useful inasmuch as profit rates impact the behaviors of capitalists and enterprises. Investors do not know and do not care about value measurements. Consequently, such measures cannot matter “objectively”, that is, through mechanisms whose effects would be felt independently of any form of awareness. The main impact of profit rates is on investment decisions (with an important comparative aspect) and financing. But financing is collected in money terms, in relation to the actual prices of the components of investment, and it is this comparison that matters.

These statements should not be interpreted as a denial of the explanatory power of Marx’s categories. Quite the contrary, but discussing the relevance of Marx’s theory of value and exploitation lies beyond the limits of the present investigation. Involved here is Marx’s

37. We abstract here from all difficulties of measurement, notably the determination of productive labor. Note that values must be determined at *replacement values*, which Marx denotes as “reproduction”, not as *historical values*: “Apart from all the accidental circumstances, a large part of the existing capital is always being more or less devalued in the course of the reproduction process, since the value of commodities is determined not by the labour-time originally taken by their production, but rather by the labour-time that their reproduction takes, and this steadily decreases as the social productivity of labour develops.” (MARX K. 1894, Ch. 24, p. 522).

analysis of the falling profit rate in Volume III of *Capital*. Marx's formula of profit rate is expressed in value terms. This must be understood as a *simplifying assumption* (one among others, for example, the distinction between flows and stocks). When Marx discusses the mechanisms by which individual capitalists introduce new technics that will be detrimental to the average profit rate, he suddenly assumes that commodities are exchanged at prices of production. He does so because the previous harmless simplifying assumption does not allow for the new discussion. It becomes necessary to move one step further into the complexity of real mechanisms.

## 6 - A profitability crisis: II - Short-term dynamics

Instead of considering the historical trends and levels of the profit rate, a number of studies focus on the shorter term fluctuations of the profit rate.<sup>38</sup> The current crisis is imputed to a downward fluctuation of the profit rate prior to the crisis. This approach assumes the existence of such a short-term relationship between the recurrent fluctuations of the profit rate and the occurrence of recessions.

Do downward fluctuations generally foreshadow the occurrence of recessions as contended in a number of studies? This is discussed in section 6.1. But the question immediately relevant to the present investigation is whether such a dramatic chain of events occurred prior to the recession of 2008/9, to which a major crisis could be imputed. This is the object of section 6.2, which emphasizes the

38. This distinction between time frames is a central theme in Weisskopf's work: "Each of the variants of Marxian crisis theory that I will consider can be developed either as a theory of short-term cyclical declines in the rate of profit (to explain the capitalist business cycle) or a theory of longer-run declines in the profit rate (to explain 'long-wave' periods of decline or even secular stagnation)." (T.E. Weisskopf, "Marxian Crisis Theory and the Rate of Profit in the Postwar U.S. Economy", *Cambridge Journal of Economics*, 3 (1979), p. 341-378, p. 341-342).

Sergio Cámara clearly distinguishes between the long-term and short-term effects of the profit rate (S. Cámara Izquierdo, "Short-term and Long-term Dynamics of the U.S. Profit Rate in The Current Crisis, Universidad Autónoma Metropolitana-Azcapozalco, Mexico (2010)). Concerning the current crisis, the long-term effect is denied by Cámara in favor of the short-term component.

well-known features of this recession in relation to the credit crunch that followed the financial crisis and the housing boom, the actual trigger of the contraction.

### 6.1 The fluctuations of profit rates and recessions

In Marx's analysis of business-cycle fluctuations rising costs encroaching on profits play a central role. Two such mechanisms are considered, the rise of wages during phases of expansion and increasing interest rates. It is, therefore, all the too natural that Marxist economists try to check empirically the relevance of this relationship between profitability and business-cycle fluctuations.<sup>39</sup>

This investigation is difficult. The identification of the chronology of events is already uneasy. Do profit rates usually fall prior to output? (A subsidiary issue is whether this fall can be imputed to wages as is contended.) Then, the assessment of the direction of causation is an even thornier issue:

Diminished profit rate  $\xrightarrow{(a)}$  Recession

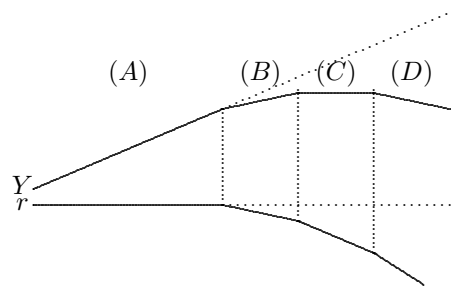
Recession  $\xrightarrow{(b)}$  Diminished profit rate

The decline of the profit rate might cause the fall of the capacity utilization rate (a) as is asserted but, reciprocally, the fall of the capacity utilization rate certainly entails the decline of the profit rate (b) as a result of the existence of fixed costs.

An appropriate methodology must be defined. The comparison between an upward trended variable such as output and a basically untrended variable such as the profit rate is problematic. Figure 20 schematically illustrates the problem. The movements of the two variables (their logarithms) are decomposed into four phases, from A to D, under the assumption that the rate of growth of output and of profit rates decline *simultaneously* instead of prior to the rate of growth of output as contended. During phase B, output begins to grow at a rate inferior to its trend rate and the profit rate simultaneously begins to sag. During phase C, output stagnates, and the

39. The studies by Erdogan Bakir and Al Campbell (E. Bakir, A. Campbell, "The Effect of Neoliberalism on the Fall of the Rate of Profit in Business Cycles", *Review of Radical Political Economics*, 38 (2006), p. 365-373) discuss and prolong the research by Tom Weisskopf (T.E. Weisskopf, "Marxian Crisis Theory", *op. cit.* note 38). This investigation is repeated in F. Xie, A. Li, A. Zhu, "Marxist theory of crisis", *op. cit.* note 27.

Figure 20 Comparing the dynamics of output and profit rates



profit rate continues its decline to the recession proper into phase D. To sum up, the straightforward observation of the pattern of variation suggests that the movements of the profit rate anticipate on the occurrence of recessions (B before D), but this assessment is misleading. The profit rate declines when output begins to sag below its trend (during phase B).<sup>40</sup>

Figures 21 and 22 (for the early and latter years) provide a detailed description of the variations of profit rates and values added within the nonfinancial corporate sector, using a methodology devised in order to avoid the above bias. Beginning with the logarithms of the variables, a trend is taken out<sup>41</sup>, and the charts show the distance between the trends and the variables, with a single objective, the determination of the comparative chronology of peaks and troughs. (The technical aspects are explained in the caption of Figure 21.)

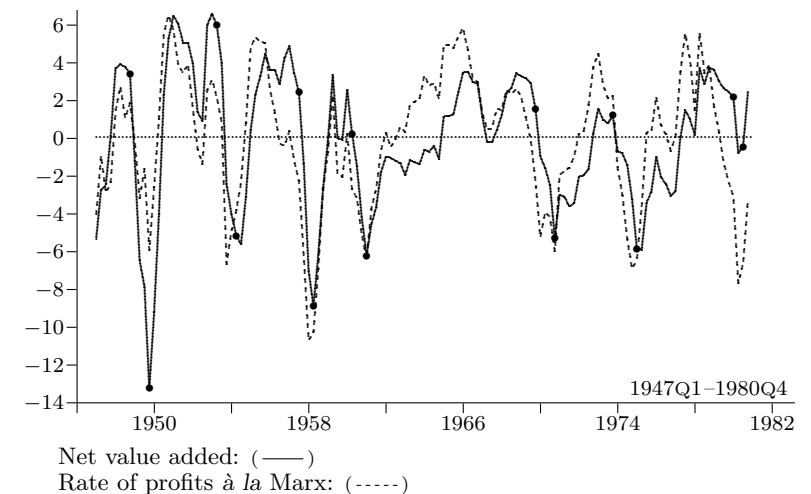
The two fluctuations are tightly correlated, with profit rates leading in several instances. Much more research would, however, be required to conclude in favor of the existence of a causal relationship.<sup>42</sup>

40. In Campbell's and Bakir's first study above, profit rates decline during the late expansionary phases (denoted as B in their study) when the capacity utilization rate is already declining (Table 1), as in the diagram of Figure 20.

41. We use the Whittaker filter, with a parameter of 10000.

42. The hypothesis considered in existing studies is that the fluctuations of wages account for these movements of profits. In our measures, the share of wages in total income is lagging with respect to the fluctuations of output. It begins to rise when the phase of expansion is already underway and continues during the phase of contraction of output. But this pattern reflects the rigidity of employment and wages.

Figure 21 Net value added and profit rates 1947-1980 (fluctuations): Nonfinancial corporations



In this figure and the following, “fluctuations” refer to the movements of the variables around their trend. Since logarithms are used the same values on vertical axes mirror proportionally equal amplitudes of fluctuations for each variables taken separately. For value added, these values can be read as percentages of deviations above or below the trend. The variance of the fluctuations of the profit rate has been normalized to the variance of value added and no such interpretation is possible. Thus, one cannot compare the amplitudes of the two fluctuations, only the amplitudes of the fluctuations of a same variable during distinct periods.

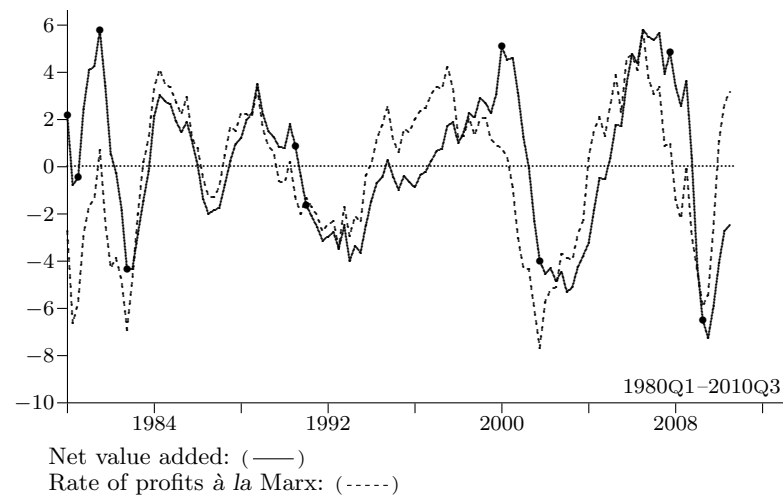
The black dots denote the peaks and troughs of GDP in the business cycle as determined by the NBER. The peak quarters are 1948Q4, 1953Q2, 1957Q3, 1960Q2, 1969Q4, 1973Q4 and 1980Q1. They do not match exactly the peaks and trough of the value added of the nonfinancial corporate sector, simply because the sector is not the same.

## 6.2 The current crisis

As evident in Figure 12, all measures of profit rates undergo significant fluctuations. In the after-tax measure (— —), a rather large fluctuation is observed prior and during the recession of 2001 and a new one, of much smaller amplitude, prior and during the recession in the current crisis. (The NBER locates the recession between the fourth quarter of 2007 and the second quarter of 2009).

Returning to Figures 21 and 22, one can observe that there is nothing exceptional in the fluctuation of profit rates associated with

Figure 22 Net value added and profit rates 1980-2010 (fluctuations): Nonfinancial corporations

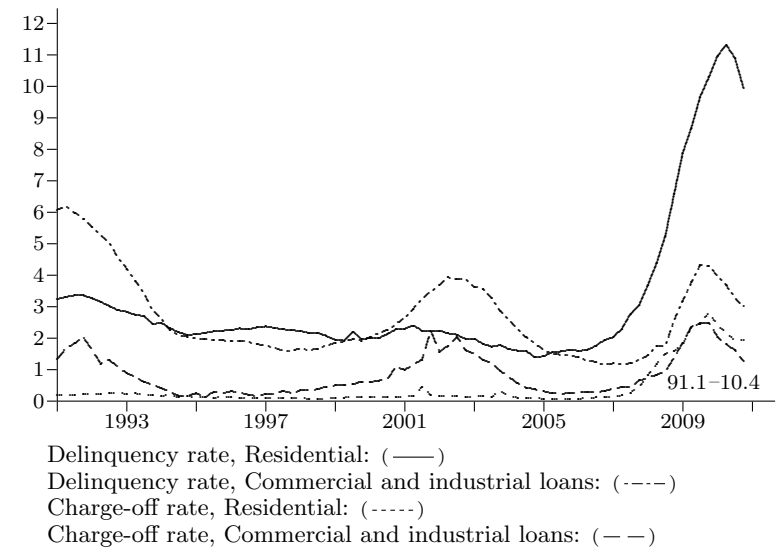


The peaks of GDP according to the NBER are observed in: 1981Q3, 1990Q3, 2001Q1, and 2007Q4.

the latter recession. The amplitude of the peak in the profit rate is “standard”, and the trough in profits less deep than is often observed. The hypothesis that these fluctuations caused a major recession appears very questionable.

As in the case of most other recessions if not all, the contraction of output began with the decline of residential investment. As shown in Figure 23, the initial steps upward of delinquencies and charge-offs were observed in the first months of 2006. The figure also emphasizes the specific pattern observed during this recession. While during the 1990/1 and the 2001 recessions the rise of commercial and industrial delinquency rates was much larger than in the case of residential mortgages, the opposite is true of the 2008 recession. It is *unquestionably* this mortgage shock that destabilized the macroeconomy and caused the credit crunch, not a prior decline in the profit rate.

Figure 23 Delinquencies and charge-offs on residential loans, and commercial and industrial loans: U.S. commercial banks (percent of loans outstanding).



The variables are quarterly annualized rates.

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