SHORT AND LONG-TERM DYNAMICS OF THE U.S. PROFIT RATE IN THE CONTEXT OF THE CURRENT CRISIS

Sergio CÁMARA IZQUIERDO
scamara@correo.azc.uam.mx
Área de Investigación Sociedad y Acumulación Capitalista
Departamento de Economía
Universidad Autónoma Metropolitana-Azcapotzalco

Paper to be presented at the
CONGRÈS MARX INTERNATIONAL VI
"CRISES, RÉVOLTES, UTOPIES"
22-25 September 2010, Université de Paris-Ouest-Nanterre-La Défense, France

ABSTRACT

The paper analyses the short and long-term dynamics of the U.S. profit rate in the postwar era and, in particular, in the context of the current crisis; therefore, the current crisis is characterized from the profitability trends and fluctuations. In the long-term, Marxian theory postulates a tendentially falling profit rate as the main cause of structural crisis of over-accumulation. However, it is argued that the current crisis has not been preceded by such a tendency in the U.S. economy; rather there has been a recovery of the profit rate. However, the crisis can be characterized from the structural tendencies of profitability and accumulation; essentially, it is argued that the low levels of profitability and the neoliberal inhibition of productive investment constitute the structural context of the crisis. Secondly, a short-term downfall of the profit rate, associated with the cyclical movement of the profit share and the interest rate, triggered the cyclical crisis of the U.S. economy that resulted in the bursting of the housing bubble and international financial crisis.

SHORT AND LONG-TERM DYNAMICS OF THE U.S. PROFIT RATE IN THE CONTEXT OF THE CURRENT CRISIS

Sergio CÁMARA IZQUIERDO
scamara@correo.azc.uam.mx
Área de Investigación Sociedad y Acumulación Capitalista
Departamento de Economía
Universidad Autónoma Metropolitana-Azcapotzalco

Paper to be presented at the
CONGRÈS MARX INTERNATIONAL VI
"CRISES, RÉVOLTES, UTOPIES"
22-25 September 2010, Université de Paris-Ouest-Nanterre-La Défense, France

CONTENTS

SHORT AND LONG-TERM DYNAMICS OF THE U.S. PROFIT RATE IN THE CONTEXT OF THE CURRENT CRISIS

Sergio CÁMARA IZQUIERDO
scamara@correo.azc.uam.mx
Área de Investigación Sociedad y Acumulación Capitalista
Departamento de Economía
Universidad Autónoma Metropolitana-Azcapotzalco

1. INTRODUCTION

The current crisis is often said to be a structural one, but it is not so frequent to find a thorough foundation for this assertion. It could be fairly suspected that the statement is on many occasions wrongly grounded in its profound and prolonged nature. The consequent shabby comparisons with the 1929 economic depression that quickly come to surface add to this superfluous characterization. The current crisis is indeed structural and its similitude to the Great Depression is greater than it is regularly accounted. However, this vigorous statement must be properly founded; it must be clearly showed that the causes of the ongoing crisis are related in some way to the economic structure and, more importantly, it must be proved that the crisis necessarily implies a restructuration of the main economic relations.

Marxist economic theory provides a solid base for structural economic analysis. According to it, the capitalist economy is a class society in which the social relations of production are characterized by capital's exploitation of labor and its drive for profit, which is itself lastly explained by capital's drive for accumulation. In other words, the incessant expansion of capital is the requisite for the reproduction of capitalist societies. The structural conditions of profitability are, therefore, the main indicator of the health of the process of capital accumulation and the economy as a whole. The structural nature of a crisis must be related then to the general conditions of capital profitability and accumulation.

On the other hand, crises are fundamentally cyclical economic episodes characterized by a sudden disruption in the process of accumulation. Their emergence is not immediately related to the long-term dynamics of profitability and accumulation; instead, short-term economic phenomena spark crises. Nonetheless, their specific development depends on structural conditions of the valorization and accumulation of capital, so determining the depth and length of the crisis. Also, structural conditions determine the extent of the recomposition processes of the profitability and accumulation conditions that take place as a consequence of the crisis, though the distinction between short and long-term transformations can be blurry. To sum up, an economic crisis evidences the existing reproduction problems of the capitalist social relations, and reflects the structural economic conditions in its severity and duration as well as in the transformation processes that restructure the conditions of valorization and accumulation in order to ensure the reproduction of capitalist social relations.

The rate of profit, the most relevant variable in the long-term economic analysis of crisis, also plays a role in the short-term dynamics of crises; mainly, the rate of profit shows a procyclical behavior. In a first approximation, the positive relation is explained by the consequences of the crisis on the rate of profit. Thus, the decrease in the level of economic activity and capacity utilization entitled by a crisis implies a slump in the profit rate. Also, the greater rigidity of wages in relation to profits during economic fluctuations explains the cyclical decline in profitability. However, it may also occur the opposite, that is, a short-term fall in the rate of profit can trigger a crisis. This cyclical behavior of the profit rate can be explained by their more volatile determinants, such as income distribution or interest rate fluctuations.

This paper analyzes the long and short-term dynamics of the profit rate in the U.S. economy during the postwar era and, in particular, in the context of the current crisis, in order to reveal some of its structural and cyclical characteristics. Therefore, a comprehensive characterization of the current crisis is not offered, but a partial characterization biased towards the profitability trends and fluctuations. The rest of the paper is organized as follows. The second section analyses the long-term dynamics of the profit rate and its relation with the accumulation process. Firstly, it is contended that the current crisis is not preceded by a tendential fall in the rate of profit; rather there is a mild recovery in the general profit rate in the last decades. Nevertheless, the current crisis has taken place in a lasting context of structurally low profitability caused by the persistent overaccumulation of capital inherited from 1970s crisis. Secondly, the last decades are also depicted as the neoliberal regime of accumulation, characterized by its diminished investment effort as a consequence of the restoration of the power of finance (lending and shareholding capital) in relation to the productive (industrial and commercial) capital. Therefore, the current crisis can be characterized as a crisis of neoliberalism.

The third section analyzes the short-term dynamics of the profit rate and its relation with the business cycle. Firstly, it is shown the strong procyclical nature of the profitability fluctuations. Secondly, a closer analysis on the dynamics of profitability during the last two business cycles, corresponding to the Clinton and Bush administrations, is presented. First, it is contended that the fall in the rate of profit anticipates the advent of both recessions; this conclusion also holds when the after-tax rate of profit, which incorporates the effects of fiscal policy, is analyzed. Thirdly, it is shown that the drop in the profit share is the main cause in the decline of the general and the after-tax rate of profit. Finally, the role played by the interest rate fluctuations is analyzed, evidencing its contribution to the 2002-2004 recovery and current crisis through its impact on the interest burden on profits. Therefore, the short-term decline of the profit rate is posited as a precipitating factor of the current crisis. The last section concludes.

2. PROFITABILITY AND ACCUMUALATION TRENDS: A STRUCTURAL CHARACTERIZATION OF THE CURRENT CRISIS

During the postwar long boom, orthodox Marxist economic theory remained in impasse. The persistent economic growth seemed not to have an end; cyclical booms were vigorous and long, while recessions were mild and short. Consequently, the case for a crisis-prone capitalism was undermined just a few years after the Great Depression. Not surprisingly, postwar Marxism was dominated by a general discussion of the "possibly changed nature of capitalism," (Howard and King, 1992: ch. 4) where the "revisionist" positions prevailed to the few orthodox participants. Less surprisingly, things turned around with the coming of the 1970s crisis. Then, orthodox Marxist economic theory was revitalized around the law of the falling rate of profit and its role in the occurrence of structural crisis. And not without a reason: the significant empirical research developed since the 1970s crisis has fairly shown that it was a structural crisis of overaccumulation related to the fall in profitability caused by technical change.[1]

---

[1] There are numerous empirical investigations about the tendential fall of the U.S. rate of profit and its relation to the 1970s crisis; for instance, see Shaikh (1992), Duménil et al. (1987) and Moseley (1991). The U.S. profitability dynamics can be extrapolated to the world economy, as other numerous empirical studies on national and multinational dynamics of the rate of profit have proved. For instance, Cámara (2008: 55-62) characterizes the global dynamics of the world economy, represented by United States,

The current crisis has renewed the Marxist debate on crisis theory. In the search for a Marxian explanation and characterization of the crisis, the inertia of the 1970s crisis and the orthodox Marxism revival has drawn some authors to turn to the law of the falling rate of profit as the main explanation of the current (structural) crisis.[2] Most authors, on the contrary, have explained the crisis based on the contradictory nature of the new dynamics of the world economy since the 1980s, labeled as neoliberalism[3] and/or financiarization.[4] However, the characterization of the neoliberalism is not always properly related to the structural trends in profitability and accumulation; often, neoliberal dynamics are presented as an autonomous force. Consequently, the financial, rather than the real, dimensions of the crisis are stressed. Repeatedly, the causes of the crisis are linked to the (de)regulation of markets –mostly, financial–, the unsustainable growth of the speculative financial sphere and its disconnection with the productive sphere. The presumption underlying this characterization is that the crisis could have been avoided or tempered if the adequate policy actions would have been taken, given the improved structural conditions of valorization and accumulation.

Within this context, the present section provides a structural characterization of neoliberalism based on the long-term dynamics of the rate of profit and its structural relation to accumulation; accordingly, the current crisis is structurally characterized as a crisis of neoliberalism.

Spain and Mexico, and identifies a world pattern of tendential fall in the rate of profit caused by a biased technical change towards capital. Freeman (1991) for the United Kingdom; Li et. al (2007) for Japan, United Kingdom, Germany, and France; and Marquetti et. al (2008) for Brazil, among others, confirm this pattern.

[2] Harman (2009), Carchedi (2009), Kliman (2009), and Astarita (2009a) represent some examples of this pursuit. Harman (2009) compares the 1929 economic slump with the current crisis and points out that "in both cases capital was faced with a rate of profit lower than two or three decades earlier". In the same vein, Carchedi (2009) states that "both theoretical an empirical investigation have provided substantiation for the thesis that the crises' ultimate cause is the tendential fall in the average rate of profit," and he thinks this holds for the current crisis. Kliman (2009) claims the falling rate of profit "was an *indirect* cause", but "not the *proximate* cause of the crisis", (*ibid*: 5) given that "that much or even the entire decline in the rate of profit occurred by the early 1980s, a quarter-century before the current crisis erupted." (*ibid*: 28) Astarita (2009), on the contrary, points out that the falling rate of profit cannot explain great crisis as the 1930s Great Depression, the Japan's 1990s stagnation, or the current crisis. As a consequence, he departs from the orthodox perspective based on profitability and accumulation to endorse a crisis theory that relies on the tendency of the economy to overinvestment (excess capacity) and to disproportionality.

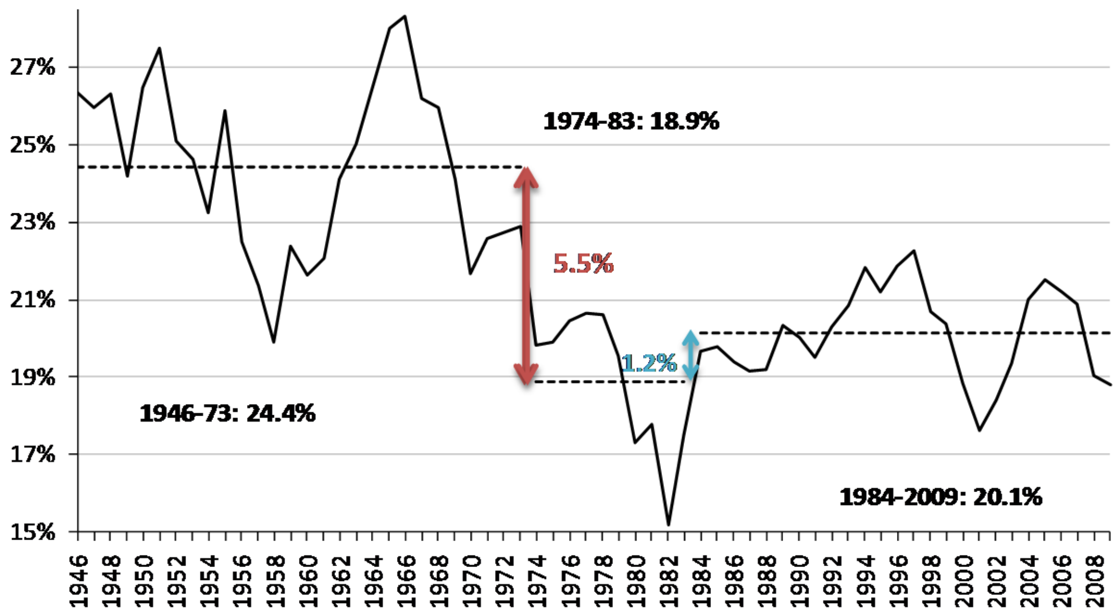
[3] A comprehensive Marxian interpretation of neoliberalism can be found in the work of Duménil and Lévy (2003, 2004a, 2004b).

[4] Two Marxist, but opposing views on the concept of financiarization are found in Lapavitsas (2009) and Astarita (2009b).

2.1 Postwar profitability trends in United States

The U.S. general rate of profit has gone through two different long periods after the Second World War. (Figure 1) The first one dates from the end of the war –when a strong increase in the profit rate concluded– to the 1970s crisis, corresponding to the Keynesian period. During this period, the U.S. economy enjoyed high levels of profitability that entailed a vigorous process of accumulation and an important economic growth, averaging 4.17% in 1950-1973. The tendency of the rate of profit to fall manifested in the second half of the 1960s and the 1970s, and it reached its lowest level in the 1982 crisis. During the crisis years, the rate of profit averaged 18.9%, which means a 5.5% less in absolute terms and a 23% less in relative terms compared to the postwar boom years. As stated above, it has been established that the falling profitability was the cause of the 1970s crisis.

Figure 1. Long-term dynamics of the general profit rate.
United States, 1946-2009



Source: Cámara (2009a). The dotted line represents the average level of the general rate of profit in the three periods represented. The general rate of profit is defined as the ratio between total surplus value of the economy and total capital advanced in production.

The second period goes from the 1970s crisis to the present, the neoliberal period. It corresponds to a period of slight recovery of the general rate of profit, as it averaged 1.2% higher than during the crisis years. Anyhow, the recovery only partially offsets the previous fall in the rate of profit, barely above 20% of it. Therefore, neoliberalism can be characterized as a low profitability period if compared with the first period; the rate of profit is 4.3% lower in absolute terms and 18% lower in relative terms than during Keynesianism. According to the labor theory of value, the structural conditions of the capital valorization during neoliberalism explain the meager economic growth during the period, averaging an annual rate of 2.95% in 1983-2009, as it will be shown below.

The observation of the dynamics of the general rate of profit during the last decades prevents an association of the current crisis with the tendential fall in the rate of profit. On the contrary, the rate of profit undergoes a slight recovery during the neoliberal years. Nevertheless, the current crisis must be contextualized within a very long period –over three decades– of low profitability, i.e., a period of weak structural conditions of accumulation and economic growth, as well as a period of greater instability.

The long-term dynamics of profitability can be further depicted by the decomposition of the general rate of profit (P/K) between its distributive and technological components, the profit share (P/Y) and the productivity of capital (Y/K),[5] respectively, where P is the surplus value, K is the capital advance in production, and Y is the new value created:

$$\frac{P}{K} = \frac{P}{Y} \cdot \frac{Y}{K}$$

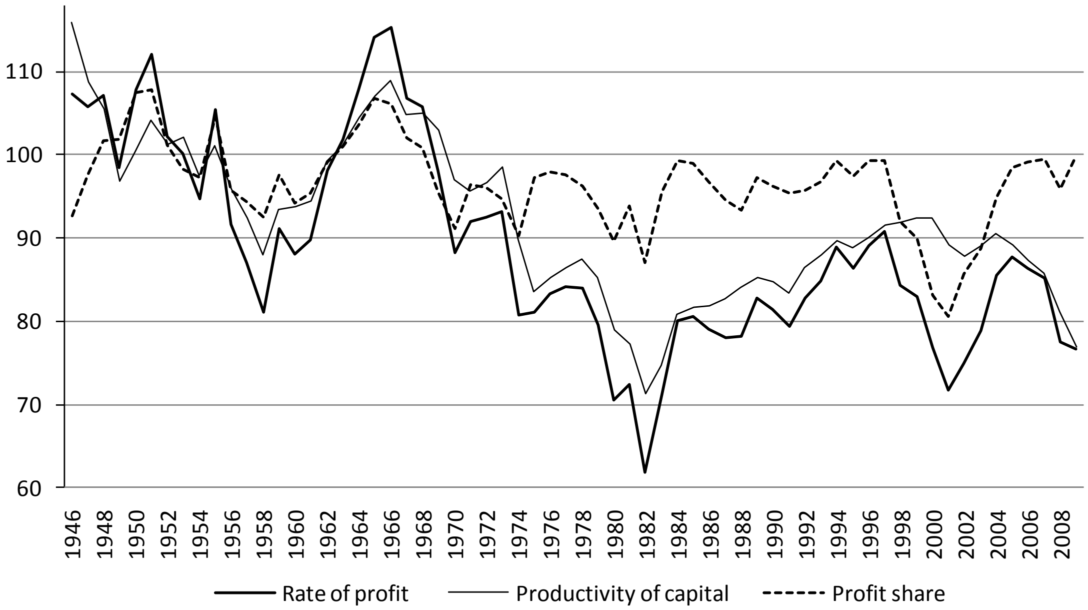
A visual observation of Figure 2 shows that the general rate of profit follows a pattern similar to the productivity of capital, the latter being less volatile than the rate of profit.[6] Therefore, the dynamics of the general rate of profit seems structurally determined by the productivity of capital, and affected by the short-term fluctuations in the profit share, which remains virtually constant along the period. This is confirmed by the numbers. The drop in the productivity the capital from the 1946-1973 period to the 1974-1983 period explains 78% of the fall in the rate of profit, while the minor decrease in the profit share explains only 22%. Therefore, the declining profitability manifested during the Keynesian period is explained by the technological component of the rate of

[5] The Marxian productivity of capital, a social and total measure, is at odds with the orthodox concept, a physical and partial measure. (Cámara, 2010)

[6] The dynamics of the productivity of capital shown in the graph includes the fluctuations in the capacity utilization rate. A measure of the productivity of capital that abstracts from it would show an even less volatile behavior.

profit, confirming the expectations of the Marxian law of the tendency of the rate of profit to fall. The scant recovery of the general rate of profit during the neoliberal period is also explained mostly by the productivity of capital, which accounts for 84% of the 6.6% relative increase in profitability, while the profit share remains nearly constant –it grows only 1% in relative terms– and explains only 16% of the recovery.[7]

Figure 2. General rate of profit, productivity of capital, and profit share. United States, 1946-2009, index numbers: 1960-5 = 100



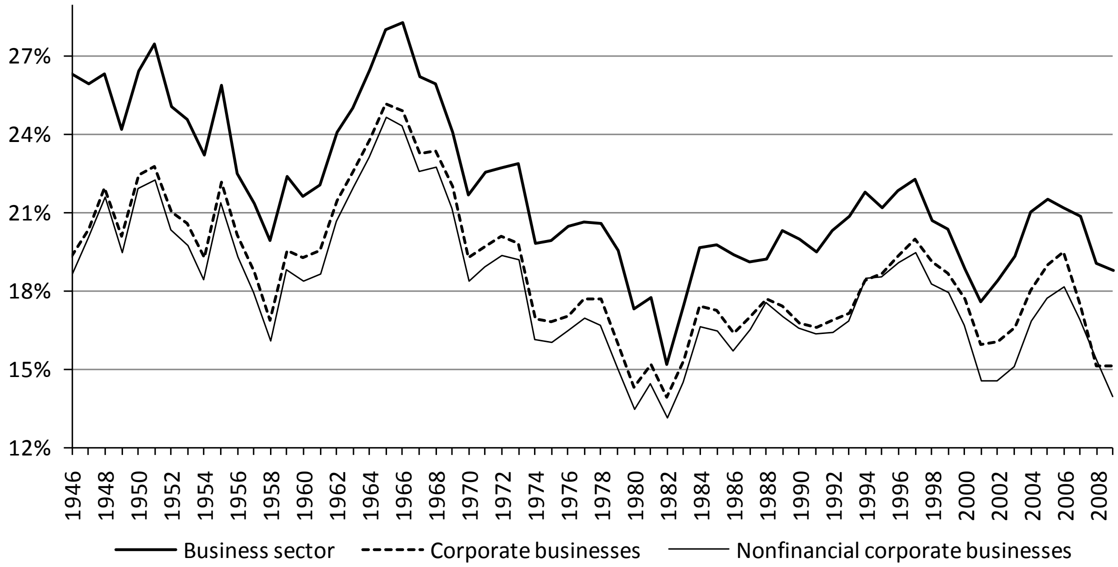
Source: Cámara (2009a).

In a comparison between the Keynesian and neoliberal periods, it is observed that the profit share is only 4% lower in the last one, while the productivity of capital is 14% lower. This means that the low general rate of profit is still explained by its technological component, in spite of being the main contributor to its recovery, and that the structural profitability constraint to accumulation and growth has a technological nature. Of course, this cannot be interpreted from a physical-technical perspective, but rather in Marxian terms as a persistent problem of overaccumulation of capital; in other words, the amount of capital (accumulated value) remains excessive in relation to the surplus value created with the existing conditions of valorization. Therefore, the current

[7] This behavior of the profit share would contradict a characterization of neoliberalism as a period of diminished power of the working class and imposition of the capitalist class of higher levels of exploitation. However, a closer look to the dynamics of real wages and the distribution of income among wage-earners reaffirms this characterization. (Cámara, 2009b: 10-12)

crisis took place in a structural enduring context of overaccumulation of capital, inherited from the 1970s structural crisis.

Figure 3. General rate of profit, different levels of aggregation. United States, 1946-2009



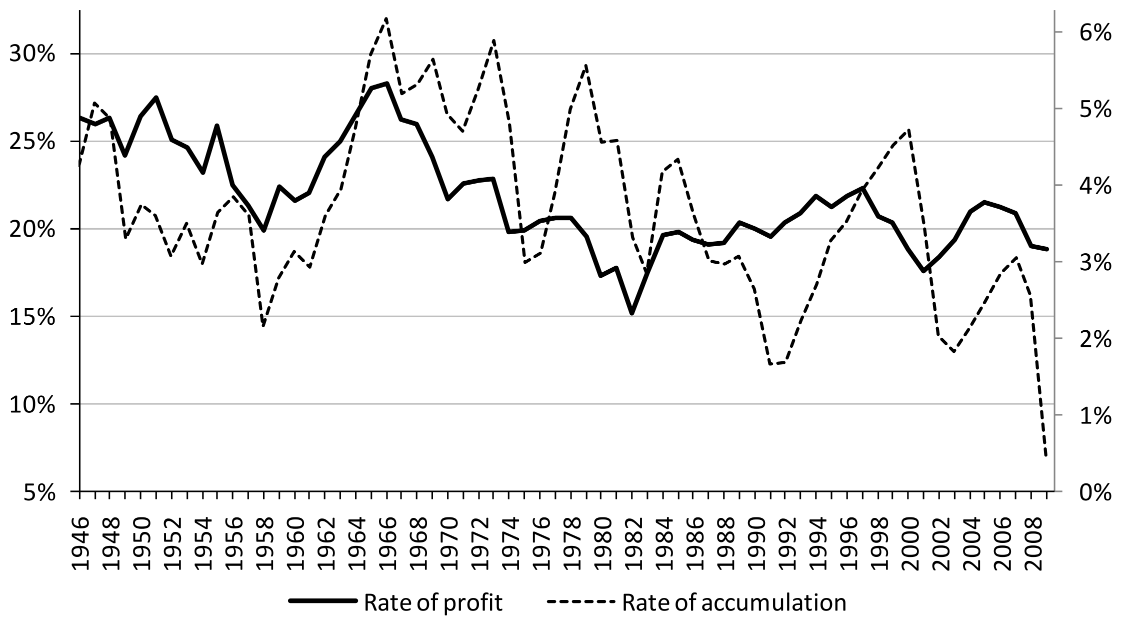
Source: Cámara (2009a).

The analysis of the general rate of profit in lower levels of aggregation confirms the long-term dynamics of profitability just described for the whole U.S. capitalist economy. Figure 3 shows the general rate of profit of the corporate business sector and the corporate nonfinancial business sector, along with the whole economy measure. Besides the lower level of both new estimates, the long-term patterns are similar; in particular, the two-phase periodization of the profitability trends is preserved. Actually, for the corporate businesses and the corporate nonfinancial businesses, the fall in the rate of profit amounts to 24% and 25% in relative terms, respectively, very close to the figure of all capitalist businesses. The neoliberal recovery in the general rate of profit is a relative 8.8% and 10.1%, respectively, only slightly higher than in the extensive sector.

2.2 Keynesian and neoliberal accumulation trends

In Marxist economic theory, there is direct relationship between the conditions of valorization and the process of capital accumulation. In this vein, the vigorous process of accumulation during Keynesianism is consequence of the high levels of the general rate of profit. Analogously, the low profitability characteristic of the neoliberal period is the key explanation of the undermined process of accumulation of the last decades. In Figure 4, both the rate of profit and the rate of accumulation are represented. It is evident that the rate accumulation collapsed along with the falling rate of profit in the second half of the 1960s and the 1970s, marking the end of the Keynesian period. However, the slight recovery of the general rate of profit during the neoliberal period is not transmitted at all to the rate of accumulation, which keeps a downward tendency, in spite of the upswing during the 1990s boom associated to the investment in technological and communication technologies.

Figure 4. General rate of profit and rate of accumulation.
United States, 1946-2009



Source: Cámara (2009a). The rate of profit is plotted in the left axis and the rate of accumulation is plotted in the right axis. The rate of accumulation is defined as the ratio between total nonresidential net investment and total capital advanced in the economy.

The lack of a direct relationship between both rates during the neoliberal period is consequence of the transformed mediation between profitability and accumulation that also shapes the dynamics of the accumulation process. In order to discern between both relationships, the rate of accumulation –defined as the rate of capital expansion, that is, the ratio of net investment (*NI*) and capital (*K*)– is disaggregated between the rate of profit and the investment coefficient –defined as the ratio between net investment and surplus value (*P*)–, which can be interpreted as a measure of the mediation between profitability and accumulation:

$$\frac{NI}{K} = \frac{P}{K} \cdot \frac{NI}{P}$$

The rate of accumulation collapsed from an average level of 4.2% during the Keynesian period (1946-1973) to an average level of 3.0% during neoliberalism, representing a relative plunge of 29%. As stated above, the falling rate of profit explains the greater part of it, as much as 56%, but the decline in the investment coefficient explains the remaining 44%, given the 13.9% relative decline of this variable between the Keynesian and neoliberal periods. Therefore, the neoliberal accumulation trends differ from the Keynesian ones not only in the lower level of accumulation, but also in the diminished propensity of capital to invest profits productively. This feature also structurally contextualizes the current crisis.

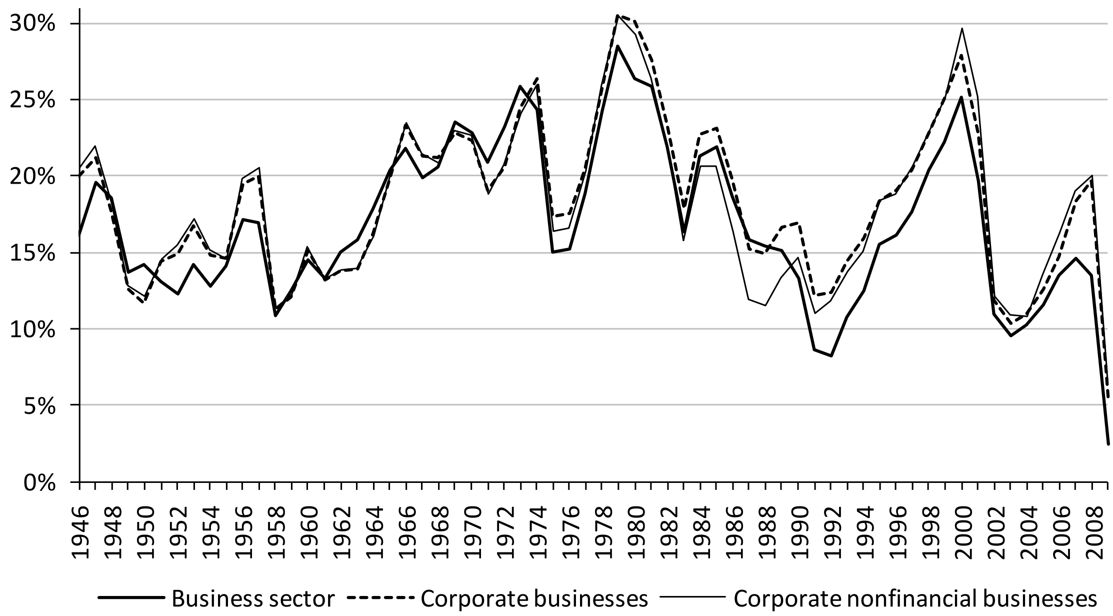
The dynamics of the investment coefficient of the U.S. capitalist economy, as well as the lower levels of aggregation,[8] are plotted in Figure 5. Beyond the lower average level of the coefficient during the neoliberal period and the predictable volatility of the variable, it is worth noting that the investment coefficient shows two distinct trends during the Keynesian and neoliberal periods. In the first one, characterized by high profitability and propensity to invest, the coefficient shows an upward trend, reflecting that the response of capitalists to the falling profitability was an increase in the productive investment effort. Quite the reverse, the neoliberal response to the mild recovery of the general profit rate consisted in a diminished proportion of the surplus value invested productively. Again, the divergent described trends allow to a contrasting characterization of the Keynesian and neoliberal processes of accumulation.

Graphically, the observed pattern of the investment coefficient for the whole economy is replicated in the lower levels of aggregation; both show an upward trend during Keynesianism and a downward trend during neoliberalism. However, they do not display the same steep decline than the overall investment coefficient; the corporate business sector diminished only in 2.0% its investment effort in relative terms, while this figure was 6.9% for the corporate nonfinancial businesses. This could be wrongly interpreted as if these sectors retain higher profits or as if some of the profits generated

[8] The investment coefficients of the lower levels of aggregation must be interpreted bearing in mind that the profits obtained in an economic sector need not to be invested in the same sector. Similarly, the profits generated in the U.S. economy could be invested abroad. Anyway, the investment coefficient is for sure an appropriate measure of the capacity of retaining profits for investment at any level of aggregation, that is, the mediation between profitability and accumulation.

in the noncorporate business sector were productively accrued in the corporate businesses –particularly, in the financial ones–. Yet, a closer look into the distinct components of profits prevents this conclusion.

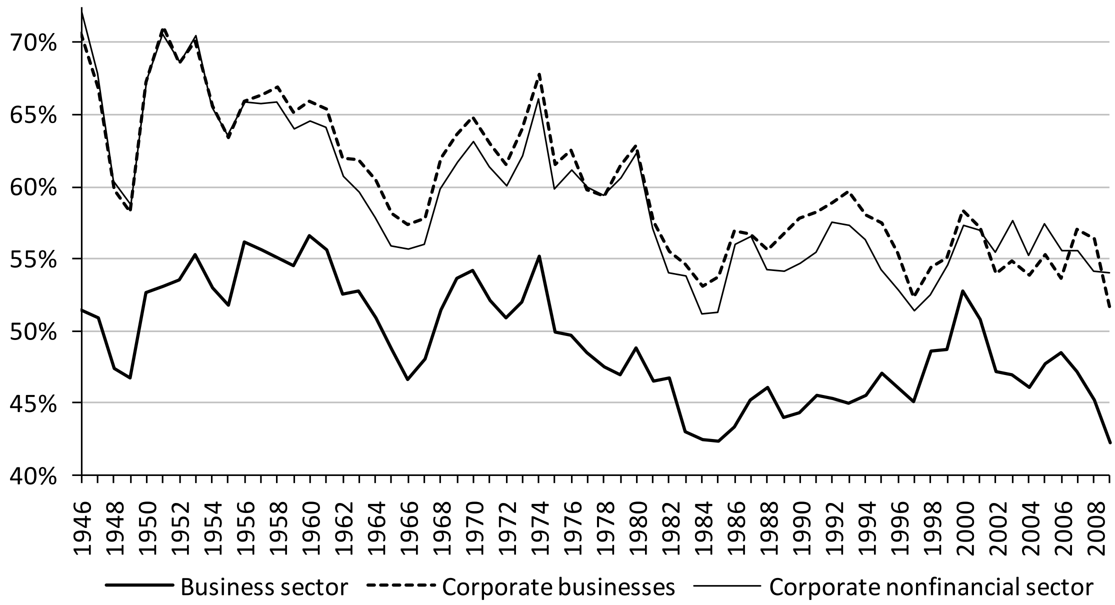
Figure 5. Investment coefficient, different levels of aggregation. United States, 1946-2009



Source: Cámara (2009a). The investment coefficient is defined as the ratio between total nonresidential net investment and total surplus value.

Surplus value can be divided into of taxes, net interest, dividends and retained earnings. While the last three are available to capitalists for accumulation, taxes are collected by the government and used up in government consumption and investment; they are a detraction of the profits susceptible of accumulation. The neoliberal restructuring of the world economy as a consequence of the 1970s crisis brought about a reduction in the tax burden on capitalist income, mainly in order to alleviate the falling in the rate of profit and to recover the capitalist perceived profitability. The U.S. government implemented a tax policy that cut the burden on profits from 52.3% in 1946-1973 to 46.1% in 1983-2009, that is, an 11.7% relative decrease. (Figure 6) While indirect taxes were fundamentally unchanged (it increased their detraction from profits from 32.4% to 33.1% in the mentioned periods), the tax reforms focused on corporate taxes, which diminished their pressure on profits from 19.9% in 1946-1973 to 13.1% in 1983-2009.[9]

Figure 6. Tax burden on profits, different levels of aggregation. United States, 1946-2009



Source: Cámara (2009a). The tax burden is calculated as the ratio between the sum of indirect taxes, corporate taxes and business transfer payments, and total surplus value.

As a consequence, the after-tax profit rate of the corporate businesses and the corporate nonfinancial businesses recovered from their previous tendential fall –as opposed to the general rate of profit– and averaged almost the same during the Keynesian and the neoliberal periods. However, the same did not happen with the rate of accumulation, which averaged, respectively, 18.4% and 22.2% lower in relative terms during the neoliberal period. Of course, the discrepancy is to be found in the investment coefficient. Thus, a better measure of the investment effort of capitalists is the ratio between net investment and after-tax profits. As Table 1 shows, the relative decrease of the investment effort for the corporate business sector and the corporate nonfinancial business sector is similar to the total economy one once the effect of taxation is considered (-20.4% and -24.1%, respectively, compared to a -23.0%). More importantly, the transformation of the accumulation trends between the Keynesian and neoliberal periods are more manifest.

[9] The NIPAs do not provide information on the taxes charged to the proprietors' and rental income of self-employed, partnerships and unincorporated business, which conform the noncorporate business sector. Therefore, the after-tax measures presented below do not deduct these taxes.

Table 1. Pre-tax and after-tax investment effort, different levels of aggregation. United States, 1946-1973 and 1983-2009

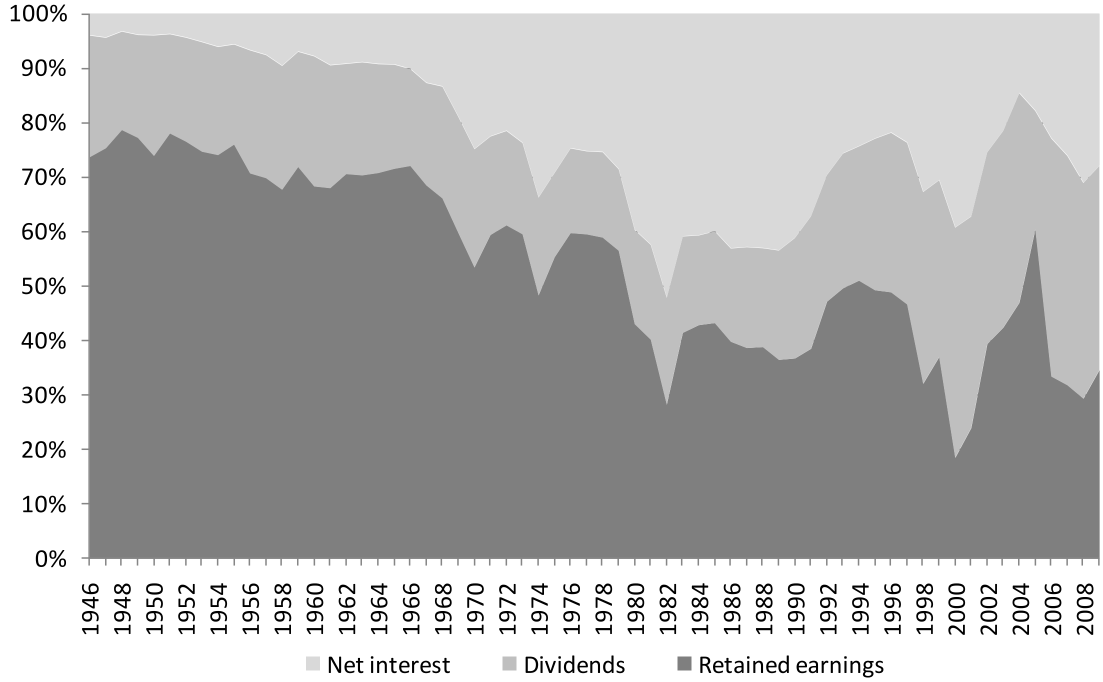
	Pre-tax investment effort			After-tax investment effort		
	1946-1973	**1983-2009**	**% (relative)**	**1946-1973**	**1983-2009**	**% (relative)**
Business sector	17.2%	14.8%	-13.9%	35.9%	27.7%	-23.0%
Corporate business sector	17.4%	17.1%	-2.0%	48.8%	38.9%	-20.4%
Corporate nonfinancial business sector	17.6%	16.6%	-6.1%	48.4%	36.7%	-24.1%

Source: Cámara (2009a). The pre-tax investment coefficient is defined as the ratio between total nonresidential net investment and total surplus value, while the after-tax investment coefficient is defined as the ratio between total nonresidential net investment and total surplus value less indirect and corporate taxes.

The transformed neoliberal accumulation regime is explained by the renewed hegemony of finance, that is, the restoration of the power of capital as property (lending and shareholding capital) with respect to capital as a function (industrial and commercial capital).[10] The financial hegemony has substantially transformed the distribution of the after-tax profits among its components: retained earnings, dividends, and net interest. (Figure 7) In a first instance, the rise of the nominal interest rates in 1979, aimed to curb inflation in order to protect the interest of the lending capital without regard of the financial conditions of the productive investment of industrial companies, intensified the growing tendency of the interest burden on profits that initiated in the early 1970s. Thus, the net interest share in the after-tax profits rocketed from an average of 9.9% in 1946-1973 to 31.0% in 1983-2009. In a second instance, the increased power of the shareholding capital during the neoliberal period manifested in an upsurge of the portion of corporate profits paid as dividends, especially since the 1990s. Thus, dividends represented 20.2% of after-tax profits in the Keynesian period, but 29.1% in the neoliberal period. As a consequence, retained earnings –that is, the portion of profits manifestly intended for accumulation– diminished its share in after-tax profits from 70.0% to 39.9%. The propensity to invest productively the dividend and the interest income is lower than the propensity to invest retained earnings, and that appears to be the main explanation for the diminished overall investment effort.

[10] Duménil and Lévy (2003) describe "a specific power configuration within capitalism, in which the power and income of the upper fractions of ruling classes have been restored after a period of decline. It can be described as a new financial hegemony." (*ibid*: 2) It consists of an increase in the power of *finance* –the upper fraction of the ruling classes and their institutions of power–, implemented through the financial ownership of companies, that is, lending and shareholding capital. (*ibid*: 2-4)

Figure 7. Net interest, dividends and retained earnings. United States, 1946-2009, % of after-tax profits



Source: Cámara (2009a).

2.3 A crisis of neoliberalism?

This section has characterized the structural dynamics of profitability and accumulation in the postwar era, and particularly during neoliberalism, in order to portray the structural context of the current crisis. On the one hand, it has been shown that the last decades are characterized by a low general profitability as a consequence of the materialization of the tendency of the profit rate to fall since the mid-1960s, and, more importantly, the failure to recover the general rate of profit within the neoliberal order. To this effect, the contribution of the technological component to this recovery has been scarce, so the overaccumulation problem that led to the 1970s crisis is still unresolved in the U.S. economy. Furthermore, the attack on real wages has proved unsatisfactory for a recuperation of the rate of profit via income distribution. On the other hand, the last decades are also depicted by the neoliberal regime of accumulation, characterized by a diminished investment effort due to the restoration of the power of finance (lending and shareholding capital) in relation to the productive (industrial and commercial) capital.

As a result, neoliberalism is structurally characterized by weak conditions of valorization and accumulation in the productive sphere. In addition, the Keynesian preeminence of the productive sphere has given was way to the neoliberal financial hegemony. Consequently, the neoliberal era can be viewed as a long wave of slow economic growth. (Cámara and Mariña, 2010) This structural context has exacerbated the crisis-prone nature of capitalism and has intensified macroeconomic instability. On the one hand, the low general profitability has spurred the search of profits in the most profitable productive sectors (information and communication technologies, construction, etc.), which has provoked sectoral over-investment,[11] and in non-productive forms of valorization related to the finance and real estate, inherently unstable. On the other hand, the economic authorities have been lenient, and also have encouraged through economic policy, with the subsequent economic disequilibria (private indebtedness, twin deficits, etc.) and bubbles formation (dot.com and housing bubble).

In conclusion, it is possible to assert that the current crisis can be characterized as a crisis of neoliberalism. The severity of the crisis and the meager structural conditions, together with the absence of a candidate that may spark growth temporarily, point to the need of a structural transformation of the capitalist economy; it is a structural crisis of neoliberalism.

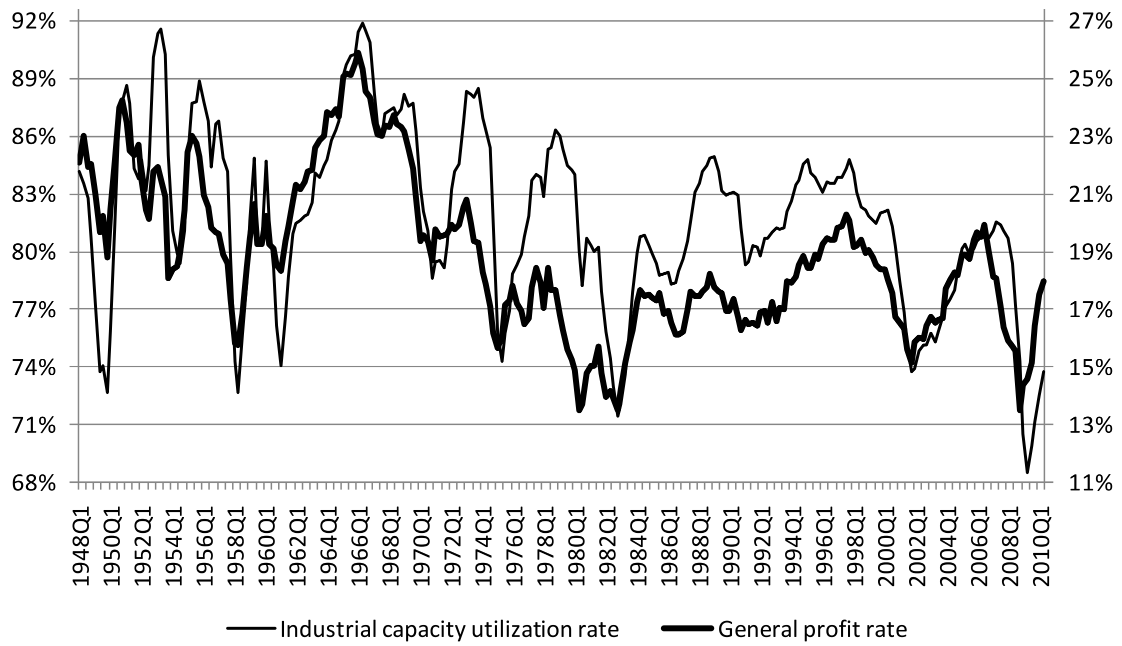
3. BUSINESS CYCLES AND SHORT-TERM DYNAMICS OF THE PROFIT RATE

Figure 8 deploys the quarterly measure of the general rate of profit in United States along with the industrial capacity utilization rate, a proxy indicator for the business cycle, for a 62-year long period. A visual inspection promptly reveals the marked procyclical behavior of the general rate of profit. This is confirmed by the contemporaneous correlation coefficient (0.6999) between both variables during the period. As pointed out in the introduction, this cyclical behavior of the general profit rate can be explained as the consequence or as the cause of business cycles; in other words, the short-term dynamics of the profit rate may either reflect or cause recessions and expansions. A closer visual inspection of the graph may suggest the general profit rate leads the cycle in some occasions; this is also indicated by a greater correlation coefficient of profitability against the 1-quarter lagged industrial capacity utilization rate (0.7209). However, it is necessary to deepen the analysis of the short-term profitability

[11] In section 3 it will be shown that this overinvestment cannot be seen as the cause of the short-term decline of the rate of profit.

dynamics to draw more solid conclusions. In the subsequent analysis, attention is paid to the last 15 years, the 1995-2010 period, which encompasses the 2001 crisis as the immediate antecedent of the current one.

Figure 8. Industrial capacity utilization rate and general rate of profit. United States, 1948Q1-2010Q2



Source: Cámara (2009a),[12] and Industrial Production and Capacity Utilization, Board of Governors of the Federal Reserve System (FRS). The industrial capacity utilization rate is directly available since 1967, and it is extrapolated backwards using the manufacturing capacity utilization rate. The industrial capacity utilization rate is plotted in the left axis and the general rate of profit is plotted in the right axis.

3.1 From the 2001 crisis to the current one

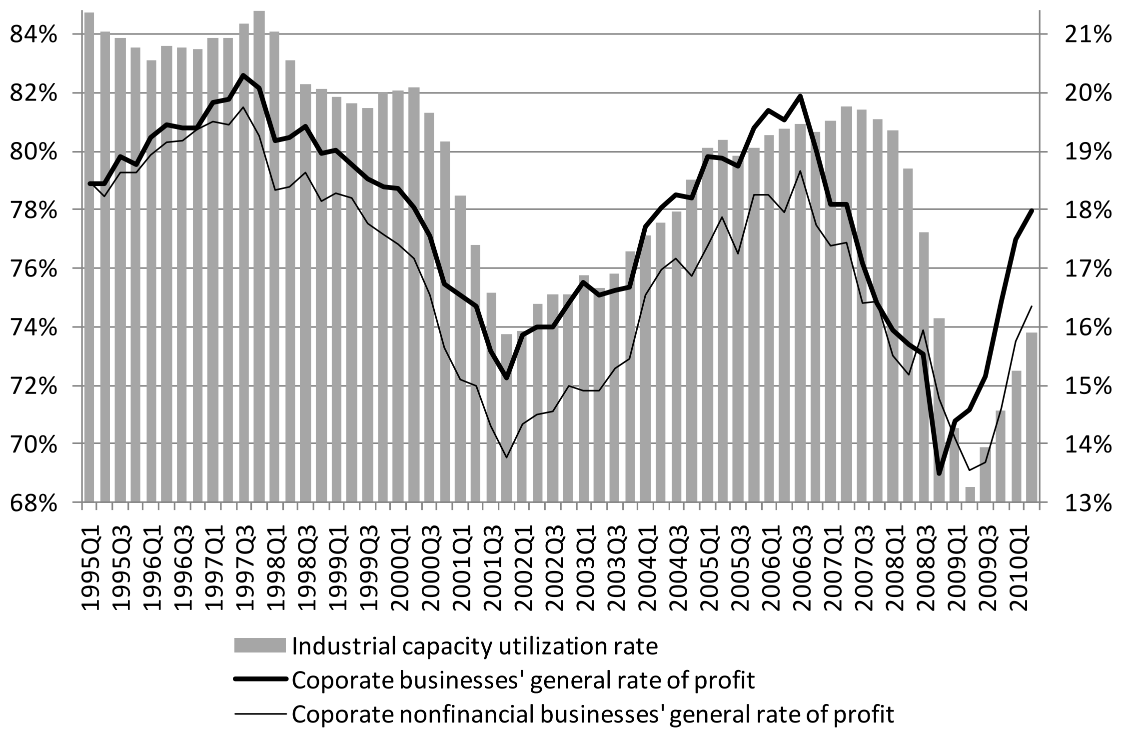
The last two recessions of the U.S. economy that initiated in March 2001 and December 2007, according to the Business Cycle Dating Committee of the National Bureau of Economic Research, were preceded by a decline of the general rate of profit.[13] (Figure 9) In the late 1990s, the general rate of profit reached its peak level in the third quarter of 1997, well before the beginning of the crisis, and bottomed in the last quarter of 2001, at the end of it. The economic activity barely slowed in 1998-2000 according to the industrial capacity utilization rate; also, the growth of the capitalist

[12] Cámara (2009a) describes the estimation methods only for annual data, but not for quarterly data, for which a methodological document is pending.

[13] This fact was first noted by Weisskopf (1979). Recently, Bakir and Campbell (2009: 336) have confirmed that "profit rates fall before, and usually well before, the output contraction that constitutes a recession."

sphere of the economy only suffered a mild deceleration and kept a vigorous pace until the 2001 crisis. In relative terms, the corporate businesses' and the corporate nonfinancial businesses' general rates of profit plunged 25.5% and 30.4%, respectively, from peak to trough. The general rate of profit recovered since the 2001 crisis until the third quarter of 2006, when started to plunge again in the late-expansion period of the business cycle, just over a year before the start of the current recession. The industrial activity remained strong until the end of 2007, but the business sector gross value added decelerated slightly since this quarter, before it plummeted in 2008. In relative terms, the corporate businesses' and the corporate nonfinancial businesses' general rates of profit plunged 32.3% and 27.4%, respectively, from peak to trough, which occurred in the last quarter of 2008 and the second of 2009, respectively.

Figure 9. Industrial capacity utilization rate and general rate of profit, different levels of aggregation.
United States, 1995Q1-2010Q2



Source: Cámara (2009a), and Industrial Production and Capacity Utilization, Board of Governors of the Federal Reserve System (FRS). The industrial capacity utilization rate is plotted in the left axis and the general rate of profit is plotted in the right axis.

In order to establish a stronger relation between the profitability dynamics and the business cycle, it is necessary to examine more concrete measures of profitability, given that the general rate of profit is not necessarily the most appropriate measure of profitability when analyzing the short-term business fluctuations. The after-tax rate of profit is an adequate first approximation, given that fiscal policy is a powerful tool of economic authorities for implementing anticyclical policies. However, the after-tax profitability measure shows just about the same behavior; first, the peaks and troughs of the after-tax rates of profit are identical; second, although the fall in the rate of profit moderates in absolute terms (3.4% and 3.9% versus 5.2% and 6.0%, respectively, in the Clinton business cycle; and 3.5% and 2.3% versus 6.4% and 5.1%, respectively, in the Bush business cycle), it deepens in relative terms (34.6% and 41.0% in the 1990s, and 37.8% and 27.5% in the 2000s).

As a consequence, it is possible to conclude that fiscal policy was rather ineffective in the mitigation of the profitability pressures to corporations in the last two business cycles. As a matter of fact, the reduction of the fiscal burden on corporate profits was virtually offset by the relative increase in indirect taxes. Table 2 shows the tax burden in relation to profits and its decomposition between direct and indirect taxes. It is noteworthy that the overall tax burden increased in both cycles –especially in the Clinton one–, so contributing a further fall in the rates of profit; thus, it explains 17.2% and 13.5% of the corporate sector and corporate nonfinancial sector, respectively, fall in the after-tax rate of profit during the Clinton business cycle, and 8.0% and 0.1%, respectively, during the Bush business cycle.

Table 2. Tax burden on profits, different levels of aggregation.
United States, Clinton and Bush business cycles

		Corporate sector			Corporate nonfinancial sector		
		Total	**Corporate taxes**	**Indirect taxes**	**Total**	**Corporate taxes**	**Indirect taxes**
Clinton business cycle	**Peak**	51.9%	19.0%	33.0%	51.2%	14.7%	36.5%
	Trough	57.8%	13.9%	44.0%	58.6%	8.8%	49.8%
Bush business cycle	**Peak**	53.2%	22.4%	30.8%	54.9%	18.1%	36.8%
	Trough	57.0%	12.8%	44.2%	54.9%	10.3%	44.6%

Source: Cámara (2009a). The total tax burden is calculated as the ratio between the sum of corporate taxes, on the one side, and indirect taxes and business transfer payments, on the other side, and total surplus value. The peak and trough for the Clinton business cycle correspond to the third quarter of 1996 and the fourth quarter of 2001, respectively. The peak for the Bush business cycle corresponds to the third quarter of 2006, while the trough corresponds to the fourth quarter of 2008 for the corporate sector and to the second quarter of 2009 for the corporate nonfinancial sector.

While a cyclical fall in profitability precedes the last two recessions, there are striking differences to be remarked. First, the lead in the fall during the Bush business cycle is of 14 quarters, while the lead in the Bush cycle is only 5 quarters. Therefore, the similar absolute and relative profitability fall in the last cycle took place in a much shorter period, was steeper. Second, the trough in the profit rate in the Bush cycle was reached two quarters later for the corporate nonfinancial sector measure, indicating a quicker recovery of the productive profits made in the financial sector. This may be related with the greater financial and banking component of the current recession, as well as with the rescue package of the last quarter of 2008, that dealt fundamentally with the financial system. Finally, it is most striking that the trough of the Bush business cycle profit rate was reached, at a not so low value, similar to the 2001 and 1980-2 low values of the rates of profit, given the severity of the current recession; and at a very soon point in time, considering that the profit rate normally regains an upward path at the beginning of the expansion, though this second point could be explained by a not so long as expected recession given the vigorous policy response or by a transitory profitability recovery that would soon vanish in the likely event of a second slump, configuring a double-dip recession. Related to it, it is also striking that the upturn of the profit rate has been quite sharp in spite of the mild economic recovery, which may point to the strength shown by the capital class in relation to labor in the class struggle for the configuration of the crisis exit policies.[14]

3.2 Short-term distribution and profitability dynamics

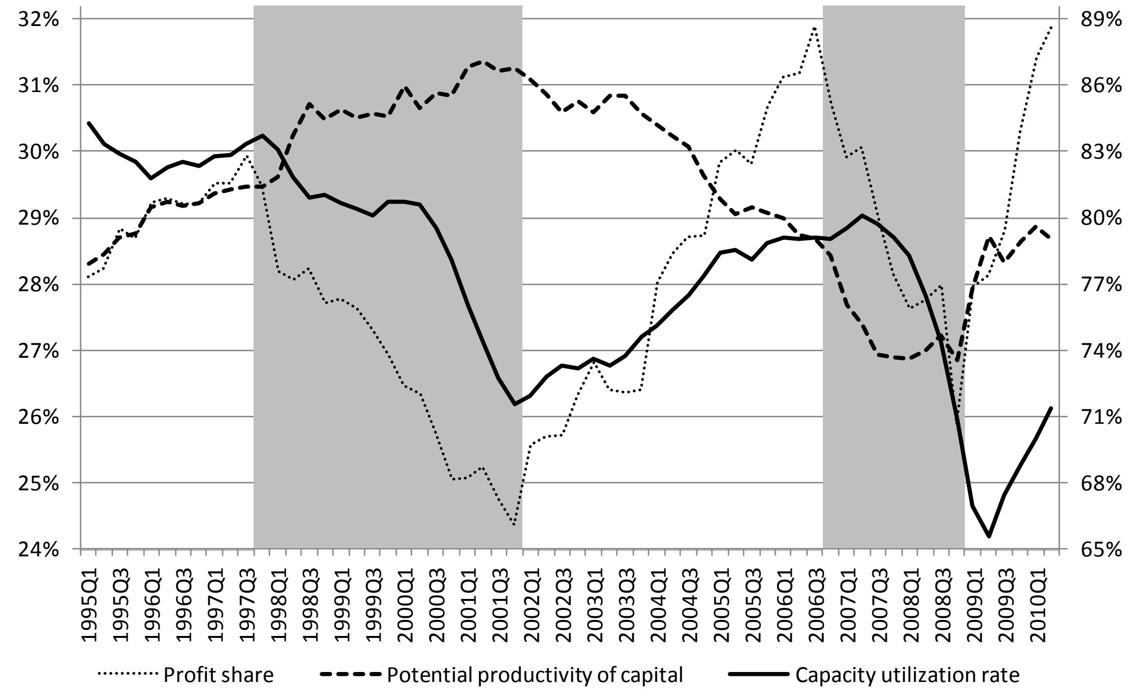
Weisskopf (1979) pioneered the short-term empirical analysis of the rate of profit. In his work, he proposed an analytical framework (Weisskopf, 1978) suitable to discern the forces that drive the fluctuations of the rate of profit along the business cycles, where the rate of profit can be decomposed into the profit share (P/Y), the capacity utilization ratio (Y/Y^*), and the potential productivity of capital (Y^*/K), where Y^* is the potential new value:

$$\frac{P}{K} = \frac{P}{Y} \cdot \frac{Y}{Y^*} \cdot \frac{Y^*}{K}$$

[14] These points do not favor the prognosis advanced by Bakir and Campbell (2009, section III) about the likely cyclical behavior of the profit rates in United States in the aftermath of the last recession.

The rising organic composition variant (ROC) explanation, associated to the over-investment theory of crisis, the rising strength of labor variant (RSL) explanation, related to the profit squeeze theory of crisis, and the realization failure variant (RF) explanation, related to the underconsumption theory of crisis, would be supported by a reduction of the potential productivity of capital, profit share and capacity utilization ratio, respectively. His empirical investigation, as well as recent one (Bakir and Campbell, 2006), concluded that most of the short-term fluctuations of the profit rate were explained by the profit share component. This conclusion can be extended for the last two business cycles, the different measures of profitability, and the different levels of aggregation, as Figure 10 and Table 3 show.

Figure 10. Profit share, capacity utilization rate and the potential productivity of capital, corporate business sector. United States, 1995Q1-2010Q2



Source: Cámara (2009a). The capacity utilization rate is assumed to be equal to the industrial capacity utilization rate provided by the Industrial Production and Capacity Utilization, Board of Governors of the Federal Reserve System (FRS). Shaded areas correspond with the periods of decline of the general rate of profit of the corporate sector. The profit share is plotted in the left axis, and the capacity utilization rate and the potential productivity of capital are plotted in the right axis.

During the Clinton business cycle, the fall in the general rate of profit (-5.18%, in absolute terms) of the corporate business sector was explained mostly by the fall in the profit share (-6.68%), while the negative contribution of the decline in the capacity utilization rate was minor (-2.80%) and the potential productivity of capital had a positive contribution (1.30%). As shown in the graph, similar conclusions (on the opposite directions) can be drawn for the subsequent recovery. During the Bush business cycle, the short-term profitability dynamics are alike, except for a slight negative contribution of the potential productivity of capital. The after-tax rate of profit dynamics is also mostly explained by the 'modified' profit share in both cycles; the only remarkable fact is that the utilization capacity rate plays a more important role in the nonfinancial corporations' measure.

Table 3. Absolute fall of the rate of profit, the profit share, the capacity utilization rate and the potential productivity of capital, different levels of aggregation. United States, Clinton and Bush business cycles

		Clinton business cycle				Bush business cycle			
		P/K	***P/Y***	***Y/Y****	***Y*/K***	***P/K***	***P/Y***	***Y/Y****	***Y*/K***
General rate of profit	**Corporate sector**	-5.18	-6.68	-2.80	1.30	-6.44	-3.35	-1.86	-1.24
	Corporate nonfinancial sector	-6.00	-4.24	-2.65	0.89	-5.12	-2.97	-2.21	0.07
After-tax rate of profit	**Corporate sector**	-3.38	-2.69	-1.28	0.60	-3.53	-2.16	-0.82	-0.55
	Corporate nonfinancial sector	-3.95	-3.13	-1.24	0.42	-2.32	-1.09	-1.25	0.03

Source: Cámara (2009a). The capacity utilization rate is assumed to be equal to the industrial capacity utilization rate provided by the Industrial Production and Capacity Utilization, Board of Governors of the Federal Reserve System (FRS). The fall in the rate of profit for the Clinton business cycle goes from the third quarter of 1996 to the fourth quarter of 2001. The fall in the rate of profit for the Bush business cycle goes from the third quarter of 2006 to the fourth quarter of 2008, for the corporate sector, and to the second quarter of 2009, for the corporate nonfinancial sector. The profit share component of the after-tax rate of profit is defined as the ratio of after-tax profits and the new value net of taxes.

In conclusion, both the underconsumption and, specially, the overinvestment theses can be ruled out as the main explanations of the cyclical behavior of the rate profit. Rather, it is the profit share dynamics that exerts a downward and upward pressure on profitability, configuring the profit rate business cycles. Bakir and Campbell (2006) confirmed Weisskopf (1979) results arguing that the profit share fall during the Keynesian business cycles were caused by the greater increase of real wages than productivity, while the effect of relative price changes had a less significant contribution. Also, they found that the drop in the profit share in the neoliberal business cycles is essentially explained by the effect of relative price changes, being it a specific feature of neoliberalism associated to the diminished class power of labor.

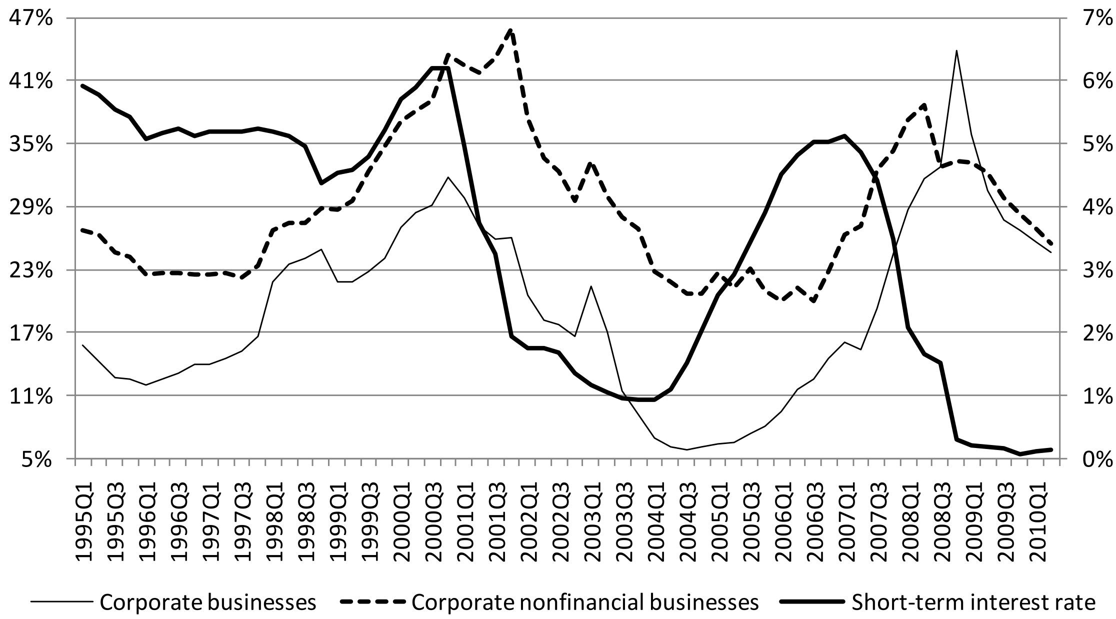
A last word should be said about the recent recovery in the profit rate. As shown in Figure 10, the upturn of the profit rate has been lead –both in time and importance–

by the abrupt profit share increase, starting as soon as the first quarter of 2009. Again, this stands as a proof of the weak power of the working class in the class struggle for the configuration of the exit crisis economic policies.

3.3 Interest rate and profit rate cycles

Another instrument of anticyclical economic policy that impacts the perceived profitability of capitalist businesses is the monetary policy and, specifically, the interest rate fixation by the monetary authorities. Business finance from bank loans and corporate bonds, while they invest in financial instruments excess cash and retained earnings; the net interest paid is seen then as a detraction of profits. This instrument seems of great importance in the last business cycles, as the sharp drop of interest rates during the 2001 crisis that fed the housing bubble contributed to the economic recovery, and the increase in interest rates since 2004 contributed to the slowdown and burst of the housing bubble that deepened the effects of the cyclical recession. (Cámara and Mariña, 2010) As a matter of fact, the cyclical movements of the profit rate have shaped drastically the evolution of the interest burden on profits since 2001.[15] (Figure 11)

Figure 11. Interest burden and short-term interest rate, different levels of aggregation.
United States, 1995Q1-2010Q2



Source: Cámara (2009a). The short-term profit rate corresponds to the market yield on U.S. Treasury securities at 3-month constant maturity, from the Selected Interest Rates provided by the Industrial

[15] Actually, there is a six-quarter lag of both measures of interest burden in relation of the short-term interest rate, according to the correlation coefficients.

Production and Capacity Utilization, Board of Governors of the Federal Reserve System (FRS). The interest burden is defined as the ratio between net interests paid and after-tax profits. The interest burden is plotted in the left axis, and the short-term profit rate is plotted in the right axis.

The rapid and sharp response of the Federal Reserve to the 2001 crisis lowering the federal funds rate had an immediate effect on short-term interest rates, which caused an outstanding decline of the interest burden on corporate after-tax profits (a 26.0% absolute reduction for corporate businesses and a 23.4% for corporate nonfinancial businesses, which is itself explained by a decline in the net interest paid of 72.6% and 15.7% in relative terms). Certainly, it played a role in the recovery of the corporations' net profitability. Nevertheless, the rise of the reference interest rates since the last half of 2004, and accelerated in 2005 and 2006 caused exactly the reverse effect. Thus, the interest burden in both levels of aggregation grew 38.0% and 18.6% in absolute terms, respectively. Undoubtedly, it added to the already falling general and after-tax profitability

3.4 The profit rate fluctuations and the business cycle: cause or consequence?

Besides the procyclical behavior of the profit rate, this section has shown that a significant cyclical decline of the profit rate have substantially preceded the last two recessions. This is strong evidence to support the role of the profit rate as a precipitating factor of both recessions. One the one hand, the decline in the profit share, presumably explained by unfavorable to capital relative price dynamics, generated an abrupt descend in the general and after-tax rate of profit that lead to the current crisis. On the other hand, the increase in the interest rates in the 2004-2006 period incremented heavily the interest burden on profits, exerting more downward pressure on net profitability. Of course, one cannot ignore other precipitating factors of the crisis related to this cyclical dynamics; for instance, the drop in interest rates since 2001 not only alleviated the profitability pressures, but also provoked the demand-led stimulus associated to the housing bubble, and the reverse happened with the subsequent rise. Nonetheless, the cyclical slump of the rate of profit must be seen as an important precipitating factor of the deepest economic downturn in the U.S. since the 1930s.

4. CONCLUSIONS

The paper has shown that profitability plays an important role in the advent of the current crisis both in the long and the short-term. In the long-term perspective, an explanation of the crisis related to the tendential fall of the rate of profit was ruled out, given that it has a slight recovery in the last decades. Nonetheless, the neoliberal era is also characterized by a failure to recover the average level of the rate of profit to the Keynesian standards. Besides low profitability, neoliberalism features an inhibition of productive accumulation, which further jeopardizes economic growth. In the short-term perspective, the cyclical decline of the profit rate, caused by the distributive component, was a precipitating factor of the current crisis. In addition, the cyclical movements of the interest rate imposed a greater drain on profits, worsening the net profitability conditions of capitalist businesses.

BIBLIOGRAPHY

Astarita, Rolando (2009), "La tasa de ganancia y las crisis en el análisis marxista", Unpublished manuscript, August 2009. Available at http://rolandoastarita.com/novDebate%20teoria%20marxista%20de%20la%20crisis.htm [Last accessed in August 9, 2010]

Bakir, Erdogan and Al Campbell (2006), "The Effect of Neoliberalism on the Fall in the Rate of Profit in Business Cycles", *Review of Radical Political Economics*, vol. 38, num., 3, summer, pp. 365-373.

____________ (2009), "The Bush Business Cycle Profit Rate: Support in a Theoretical Debate and Implications for the Future", *Review of Radical Political Economics*, vol. 41, num., 3, summer, pp. 335-342.

Cámara, Sergio (2009a), "Construction of Series for the Long-Run Analysis of the U.S. Economy. Profitability, Technology of Production and Income Distribution", Reporte de investigación No. SAEC012, Departamento de Economía, División de Ciencias Sociales y Humanidades, Universidad Autónoma Metropolitana-Azcapotzalco, Mexico.

____________(2009b), "Reestructuración y crisis neoliberal. Una perspectiva desde Estados Unidos", paper presented at the *V Coloquio Internacional de SEPLA*, Sao Paulo, Brazil, June 11-12.

____________(2010), "Producción, explotación, acumulación y reproducción. Un modelo macroeconómico básico de la teoría laboral del valor", in Mateo (ed.), *Otra teoría económica es posible. Ensayos críticos de economía política*, Editorial Popular, Madrid, Spain, forthcoming.

Cámara, Sergio and Abelardo Mariña (2010), "Naturaleza y perspectivas de la actual crisis: una caracterización marxista de largo plazo", *Política y Cultura*, Universidad Autónoma Metropolitana-Azcapotzalco, num. 34, forthcoming.

Carchedi, Guglielmo (2009), "The Return from the Grave, or Marx and the Current Crisis", Unpublised manuscript, Amsterdam, Netherlands. Available at http://www.scribd.com/doc/17174428/Carchedi-G-Return-From-the-Grave. [Last accessed in September 20, 2009]

Duménil, Gérard, Glick, Mark and José Rangel (1987), "The Rate of Profit in the United States", *Cambridge Journal of Economics*, vol. 11, num. 4, pp. 331-360.

Duménil, Gérard y Dominique Lévy (2003). “Neoliberal Dynamics, Imperial Dynamics”, *EconomiX*, PSE: Paris. Available at http://www.jourdan.ens.fr/levy/dle2003f.pdf. [Last accesed in April 30, 2009]

___________ (2004a), “"The Nature and Contradictions of Neoliberalism", in Panitch, Leys, Zuegue, Konings (eds.), *The Globalization Decade. A Critical Reader*, Merlin Press, Fernwood Publishing, London, United Kingdom, pp. 245-274.

___________ (2004b), “Neoliberal Income Trends. Wealth, Class and Ownership in the USA”, in *New Left Review*, vol. 30, pp. 105-33.

Harman, Chris (2009), “The slump of the 1930s and the crisis today”, *International Socialist Journal*, num. 127. Available at http://www.isj.org.uk/index.php4?id=506&issue=121 [Last accessed in August 12, 2010]

Howard, Michael C. and John E. King, (1992), *A history of marxian economics: Volume II, 1929-1990*. Princeton University Press, Princeton, New Jersey, United States.

Kliman, Andrew (2009), “The Persistent Fall in Profitability Underlying the Current Crisis: New Temporalist Evidence”, Unpublished manuscript, 106 pp. Available at http://akliman.squarespace.com/storage/Persistent%20Fall%20whole%20primo%20 10.17.09.pdf [Last accessed in August 9, 2010]

Moseley, Fred (1991), *The falling rate of profit in the post-war United States economy.* Macmillan Press, London, United Kingdom, 1992.

Shaikh, Anwar (1992), “The falling rate of profit as the cause of long waves: theory and evidence”, in Kleinknecht, Mandel and Wallerstein (eds.), *New findings in long wave research*. St. Martin’s Press, New York, United States, pp. 174-195.

Weisskopf, Thomas E. (1978), “Marxist perspectives on cyclical crises”, in *U.S. capitalism in crisis*, Union for Radical Political Economics (ed.), Union for Radical Political Economics, New York, United States, pp. 241-60.

___________ (1979), “Marxian crisis theory and the rate of profit in the postwar U.S. economy”, *Cambridge Journal of Economics*, vol. 3, num. 4, pp. 341-378.