The Real and Financial Components of Profitability (United States, 1952–2000)

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Abstract

Financial relations considerably alter the profile of the profit rate of nonfinancial corporations. Large rates are maintained to the end of the 1970s. Conversely, rates are diminished during the 1980s and 1990s. The average value of the profit rate of the financial sector is similar, though lower during the 1970s, due to low real interest rates and a stagnating stock market. The opposite is true during the neoliberal decades.

JEL classification: *B14; L70*

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1. Introduction

Among Marxist and Keynesian economists, there is significant interest in financial relations. Many agree that the new neoliberal course of capitalism is a reassertion of the power of finance. The term is used to designate a segment of ruling classes, the holders of large portfolios of securities, and a specific set of institutions: financial institutions. This reference to a financial power evokes Marx's analysis in volume 3 of *Capital* and of the notion of finance capital, generally referred to as the work of Rudolf Hilferding ([1910] 1981). Much use is now made of the term "financialization" to designate the wide diffusion of financial activities: the growth of financial enterprises, the rising involvement of nonfinancial enterprises in financial operations, the holding of large portfolios of shares and other securities by households, and so on (Duménil and Lévy 2004: chap. 13). Thus, both the

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impact of financial relations on the profit rate of the nonfinancial sector of the economy and the profitability of the financial sector itself appear as prominent elements in the analysis of contemporary capitalism.

Theoretical and empirical difficulties are involved in the investigation of financial relations. Two facets can be more or less analytically separated:

1. Financial relations are involved in financing enterprises. They can issue new shares, borrow, or retain profits. Income flows are implied; in particular, borrowing requires the payment of interest. But other processes are also at work, such as inflation, which is responsible for potentially important transfers of wealth between lenders and borrowers.
2. Enterprises may engage in financial investment, either as the main object of their activity or as a subsidiary activity (i.e., besides the production and commercialization of goods or services). In this latter case, financial activity is more or less tightly related to the main field. For example, customer credit directly supplements commercial activity, and corporations hold the shares of their subsidiaries. But financial investment may represent an activity per se. Of course, this second element, financial investment in its various forms and components, is linked to the previous one since it must also be financed.

This article is an attempt to (1) measure the impact of financial relations on the profit rate of the nonfinancial corporate sector, what may be called the "financial component" of profitability as opposed to a "real component" (section 3), and (2) measure the profit rate of the financial sector and compare it to the profit rate of the nonfinancial sector (section 4). A preliminary investigation is, however, the determination of the profit rate of nonfinancial enterprises independent of financial relations (section 2). (Technical information is provided in the Appendix.[1])

To our knowledge, no similar computations appear in the literature. This is probably a result of the difficulty of the methodology and the limitations in the data. A number of hypotheses must be made. There is, however, a large coherence in the results, within this study itself and with the results of earlier research. In particular, it is interesting to note the broad consistency between the profit rate of the financial sector and that of other industries and the impact of profitability differential on the investment of capital.

At a rather general level of analysis, this study emphasizes the large policy or, even more accurately, "political" component surrounding financial mechanisms and the dramatic change that resulted from the assertion of neoliberalism in the early 1980s. Despite the existence of basic economic mechanisms (such as the mobility of capital among various activities depending on relative profit rates), the income of owners and lenders (either individual or institutional—individuals standing behind financial institutions) is the product of a social power relation, susceptible to historical modification. This finding echoes Marx's analysis in *Capital* of the determination of the interest rate, which is not subject to an economic "law" but expresses a social relation that determines the sharing of the total surplus value among various groups of capitalists.[2]

1. It is not possible to account here for the extensive literature devoted to the measure of profit rates in various definitions and units of analysis. See the additional reading list at the end of this study. The consideration of financial relations is always problematic. This article supplements our own most recent investigation (Duménil and Lévy 2002a, 2002c).

2. Since the nineteenth century, the corporate and managerial revolutions have, somehow, transformed these configurations. As a result of the separation between ownership and management, the basic opposition, within

2. Nonfinancial Corporations: The Real Component of Profitability

The purpose of this part is to compute the profit rate independent of any financial relations that will be used as a basis in the consideration of the financial component of profitability (section 3). Two basic issues must be faced: the definitions of the sector (section 2.1) and of the profit rate (section 2.2) to be considered.

2.1. The restricted corporate sector

In a study of profitability, sectors such as government and residential real estate[3] must first be subtracted from the total economy. This defines an entity that can be called business. As shown in Figure 1, business is composed of the noncorporate and corporate sectors. In turn, the corporate sector can be broken down into corporate finance and nonfinancial corporate, denoted as the NF-corporate sector. The noncorporate sector still represents about one-quarter of total business. The bulk of the product of corporations is realized by nonfinancial corporations (93 percent).[4]

In earlier research, we have identified a very significant heterogeneity between industries (Duménil and Lévy 2002a, 2002c). A subset of industries, such as railroad transportation or public utilities, that we denote as highly capital-intensive industries, contributes little to the national net product but uses dramatically large amounts of capital in comparison to employment or output.[5] The profile of the profit rates in these industries is thoroughly different from that of other industries.

1. While industrial profit rates tend, in general, to gravitate around a common value, this is not true for highly capital-intensive industries, whose profit rates remained very low during most of the period following World War II.
2. Within industries generally (excluding highly capital-intensive industries), the profit rate had declined in the early 1980s to about half its average value over the decade 1956–65. No such fall is observable for highly capital-intensive industries.

It is not clear whether this exception relates to the excessively large Bureau of Economic Analysis's (BEA's) estimates of fixed capital for these industries (which have been consid-

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contemporary capitalism, is not so much between industrial and financial capitalists (which Marx called lenders, including shareholders) than between large corporations, on one hand, and lenders and shareholders, on the other. The article shows, however, that the distinction between nonfinancial corporations and financial corporations is still relevant, despite the involvement of nonfinancial corporations into financial activity. (The notion of industrial capitalists, as a class, still applies to the owners of smaller firms, and Marx's opposition, as originally defined, remains directly relevant in this context.) These new configurations did not affect the nature of the relationship between financial interests and the rest of the economy; power is still at issue, not simply markets.

3. To a large extent, real estate is composed of structures (housing or residential capital and nonresidential capital) owned by households. Income in this industry primarily consists of the rental income of persons (corresponding to housing occupied by their owners, for which fictitious rents are estimated, or to actual renting by households).

4. Interest, dividends received, or capital gains are not part of the product of financial corporations. This product corresponds to fee income and other noninterest income. The percentage (7 percent) in Figure 1 does not provide a convincing view of the importance of financial corporations. See section 4.

5. These industries are mining, communications, transportation, and public utilities.

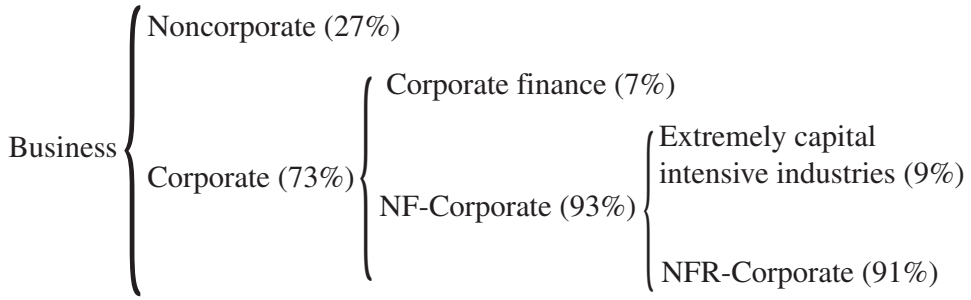

Figure 1.
The Various Components of Business.
Note: NF = nonfinancial; NFR = nonfinancial restricted. The figures within parentheses indicate, for each sector, its relative contribution to the net product of the sector on the left of the brace, on the average for the period 1952–2000.

erably increased in the recent revision, in relation to larger service lives) or to an actual economic mechanism.

Most of the effect imputed to highly capital-intensive industries is actually concentrated within the even smaller fraction of the economy where huge amounts of fixed capital are accumulated, which we denote as extremely capital-intensive industries. These industries are oil and gas extraction; petroleum and coal products; pipelines except natural gas; railroad transportation; and electricity, gas, and sanitary services.[6] To reduce the exclusion to a minimum, we set aside only extremely capital-intensive industries from the present investigation.[7] We denote the rest (91 percent of the output) of the NF-corporate sector as the NFR-corporate sector, where NFR denotes "nonfinancial restricted" (see Figure 1).

The reason to exclude extremely capital-intensive industries is that the profitability of financial activities should be compared to the levels around which the profit rates of other industries gravitate, since this center of gravitation seems to define a kind of capitalist "norm" at each point in time.[8] The consequences of this elimination are important since the masses of capital invested in these industries tend to mask the overall trend of profitability in other industries. In other words, the consideration of extremely capital-intensive industries leads to underestimation of the impact of the decline of the profit rate in other industries (the bulk of the economy) taken separately.

Figure 2 displays the profit rates (profits/capital) of the NF-corporate sector and of its two components, the NFR-corporate sector and extremely capital-intensive industries.

6. In Duménil and Lévy (2002c), petroleum and coal products were not considered a component of extremely capital-intensive industries. The sector is, therefore, larger in the present study. The reasons for this different treatment are given in section A.1 of the Appendix.

7. A more severe criterion was required in Duménil and Lévy (2002a) because the issue was the gravitation of profit rates among industries. In the present study, the nonfinancial sector of the economy is always considered globally. The bulk of extremely capital-intensive industries is incorporated, but a small fraction is not. We subtract only the incorporated segment of extremely capital-intensive industries from the total nonfinancial (NF)-corporate sector (see section A.1 in the Appendix).

8. In addition, the measure of capital stocks in extremely capital-intensive industries is fraught with considerable uncertainty and was subject to dramatic revision.

Figure 2.
Profit Rates in Three Sectors (%).
Note: NF-corporate sector (—), NFR-corporate sector (– –), and extremely capital-intensive industries (- - -). Profit rate = r_3 = (net product – labor compensation – indirect business taxes and profit taxes)/(fixed capital + inventories).

Profits are defined as the net product (already abstracting from the cost of circulating inputs other than labor and the depreciation of fixed capital) minus total labor compensation (wages and related charges for retirement or health insurance, either private or public) minus taxes (indirect business taxes and profit taxes[9]). Capital is the net stock of fixed capital (equipment and structure) plus the stocks of inventories (raw materials, goods in process, and finished goods). The sum of these two components is tangible assets. Note that this profit rate is computed independently of any financial relations (such as interest, financial profits, or indebtedness).

As stated earlier, the profit rate of extremely capital-intensive industries is usually low and does not display any significant trend, either downward from the war to the early 1980s or upward during the subsequent decades. During a few years in the early 1980s, the profit rate of extremely capital-intensive industries reached the same levels as the rest of the corporate sector. This was the temporary effect of the rise of the price of oil, which accounts for about half the product of these industries. The pattern of evolution of the NF-corporate sector or the NFR-corporate sector reveals the following sequence: (1) the rise into the 1960s, (2) the decline from the mid-1960s to the early 1980s, and (3) the new trend upward to levels similar to those of the 1950s. These trends are more accentuated within the NFR-corporate sector because of the exclusion of extremely capital-intensive industries, whose profit rate displays no trend.

A last remark must be made concerning the definition of the sectors considered in this study. Concerning the relationship between the United States and the rest of the world, the

9. Profit taxes are available for corporations.

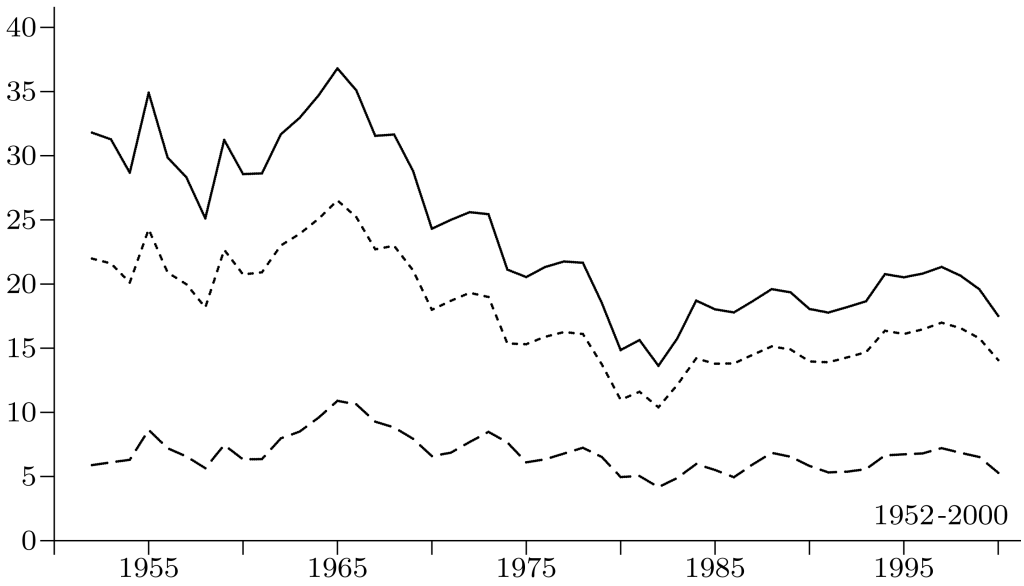

Figure 3.
Three Alternative Measures of the Profit Rate, r_1 (—), r_2 (- - -), and r_3 (– –) (%):
Nonfinancial Restricted–Corporate Sector.

Note: Definitions as in section 2.2. The difference between r_1 and r_2 provides a measure of the effect of inventories. The difference between r_2 and r_3 accounts for the effect of taxation. The third measure, r_3, is also plotted in Figure 6, where its trend and fluctuations can be more easily assessed.

sector considered in this study is broad. It includes U.S. corporations and their foreign affiliates. Thus, profits made abroad are part of total profits. The affiliates of foreign corporations in the United States are also included, that is, foreign direct investment in the United States is treated as a component of the net worth of corporations (section 3.1).

2.2. The effects of inventories and taxation

Many investigations of the movements of the profit rate in relation to Marx's analysis in volume 3 of *Capital* consider, quite appropriately, a definition of the profit rate combining a broad definition of profits (net product – labor compensation) and a physical definition of capital as fixed capital. The definition used in the previous section is specific in two significant respects: the considerations of inventories and taxation.

Figure 3 displays three alternative measures of the profit rate:

$$r_1 = \text{(net product – labor compensation)/fixed capital}$$
$$r_2 = \text{(net product – labor compensation)/(fixed capital + inventories)}$$
$$r_3 = \text{(net product – labor compensation – business and profit taxes)/(fixed capital + inventories).}$$

The first definition, r_1, is a measure such as the one usually referred to in the analysis of the tendency of the profit rate to fall, as in volume 3 of *Capital*. The third, r_3, is identical to the one used in the previous section.

The impact of inventories on the levels of the profit rate is important. For example, in 1952, the first year of the series, the inclusion of inventories in capital diminishes the profit rate from 32 percent to 22 percent. The effect on the trend is also significant: the reduction of inventories in comparison to fixed capital acted as a countertendency to the declining profit rate. The larger effect is, however, that of taxation. In 1952, r_2 was equal to 22 percent and r_3, that is, after all taxes, to only 6 percent.

The reduction of taxation had a powerful countertendencial effect vis-à-vis the decline of the profit rate. This favorable effect of the alleviation of taxation strikingly appears in the sharp rise of the profit rate after tax during the first half of the 1960s, linked to the tax cut. The profit rate after tax increased by 71 percent of its value between 1961 and 1965, instead of only 27 percent for the profit rate before tax. Between 1952 and 2000, the profit rate before tax declined by 29 percent of its value, and the profit rate after tax rose 8 percent above its value.

Overall, the consideration of inventories and taxation modifies considerably the trend of the profit rate. In a definition such as r_1, the profit rate reached, in 2000, only 56 percent of its average value during the decade 1956–65, while r_3 rose by 19 percent.

3. Nonfinancial Corporations: The Impact of Financial Relations

This section is devoted to the impact of financial relations on the profit rate of the NFR-corporate sector. Definitions and mechanisms are introduced in section 3.1. Section 3.2 briefly documents the financialization of nonfinancial corporations. Section 3.3 presents a measure of the profit rate that includes the impact of financial relations. Section 3.4 discusses the effects of financial relations concerning, respectively, profits and capital. Section 3.5 is specifically devoted to the profit rate of U.S. direct investment abroad (USDIA).

3.1. General framework of analysis

It is important to recall that the separation between the "real" and "financial" facets of the activity of an enterprise is somewhat arbitrary. There is always a significant bias in these measurements, as in any assessment of profitability. The problem is that the abstraction in the computation of a profit rate of a given financial flow or component of capital is always imperfect and one sided. For example, it is possible to neglect interest received or capital gains in the measurement of the profit rate, but the management of a portfolio of securities requires specific costs (wages, offices, etc.) that should be subtracted when these flows of financial income are not considered. Such difficulties are usually ignored because the data required for their treatment are not available.

Four types of basic financial relations affect the profitability of nonfinancial corporations.

Financial costs. In this study, financial costs include only interest paid and are abstracted from any other costs required by financial activity (offices, wages, etc.). Dividends paid are treated as a method of dispersing profits and not counted as costs.

Financial income. This corresponds to both interest and dividends received, as well as holding gains on assets[10] and foreign earnings retained abroad. Since shares simultaneously issued and held within the same sector are excluded (section 3.2), these gains relate only to mutual fund shares and USDIA.[11] We define the following:

financial income = interest received + dividends received +
holding gains on assets + foreign earnings retained abroad.

The measure of capital as net worth. Tangible assets do not provide an appropriate financial measure of capital. The total capital in a firm also includes monetary and financial assets (cash, securities such as bonds and shares, loans, trade credit, etc.[12]), and the firm also owes money to other agents. Because of this twofold aspect of monetary and financial relationships, the addition of financial assets to fixed capital and inventories, that is, the total balance sheet, is also not satisfactory. The appropriate financial measure of capital is the difference between the total balance sheet and liabilities, known as net worth, shareholder's equity, or enterprises' own funds. Similarly, what really matters concerning indebtedness, in the analysis of profitability, are net liabilities, that is, the difference between liabilities and financial assets.[13] These variables are linked as follows:

$$\text{net worth} = \overbrace{\underbrace{\text{fixed capital} + \text{inventories}}_{\text{tanagible assets}} + \text{finacial assests}}^{\text{total assets}} - \underbrace{\text{liabilities}}_{\text{– net liabilities}}$$

The existence of foreign direct investment in the United States (FDIUS) poses a specific problem.[14] This corresponds to the affiliates of foreign corporations in the United States. We aggregate these amounts with net worth, meaning that we consider all corporations in the United States independent of the fact that they are possessed by U.S. or foreign agents. FDIUS represents now more than 10 percent of the total net worth of corporations in the United States of which it is a component in the present study.

The devaluation of the debt by inflation. Inflation devalues the stock of debt. If inflation occurs, the debt represents a diminished purchasing power when it is repaid. The real income transfer from lenders to borrowers corresponds to what can be called the flow of real interest, equal to the sum of interest paid (nominal interest) minus the devaluation of debt by inflation. The same is true concerning the holding of any monetary or financial asset. Independent of the possible variation of the value of this asset on a market (such as the stock

10. Holding gains are estimated independently of their realization (the sale of the assets). This is the only information available. Over a number of years, the consequences are small.

11. See section 3.5.

12. Financial assets could be called more accurately *monetary and financial* assets.

13. This does not mean that the total amounts of debt and financial assets do not affect the potential financial fragility of the firm and the general stability of the economy.

14. Direct investment is defined as "investment in which a resident of one country obtains a lasting interest in, and a degree of influence over the management of, a business in another country. In the United States, the criterion used to distinguish direct investment from other types of investment is ownership of at least 10 percent of the voting securities of an incorporated business or the equivalent interest in an unincorporated business enterprise" (Bargas 2000).

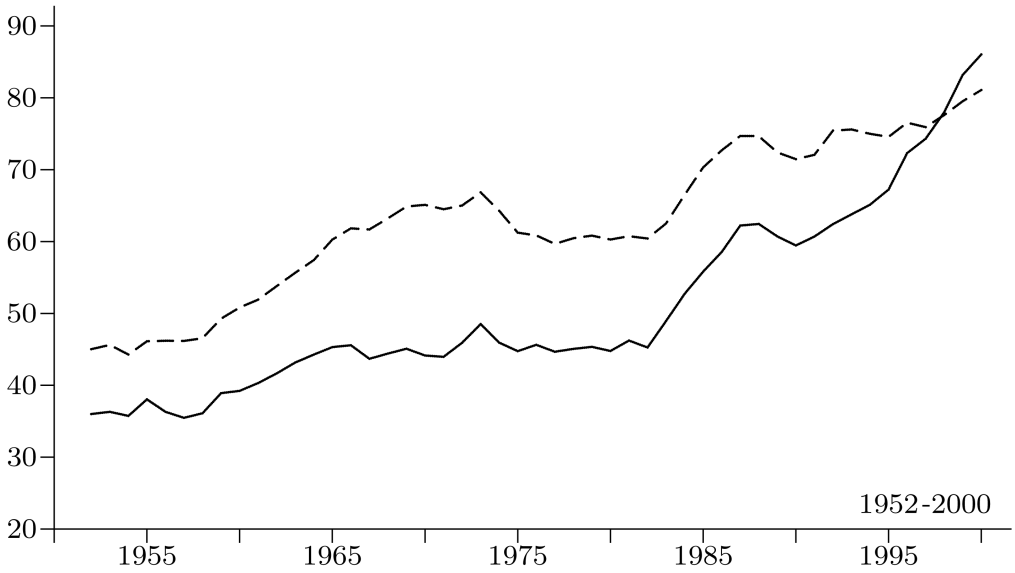

Figure 4.
Ratio of Financial Assets (—) and Debt (– –) to Tangible Assets (%): Nonfinancial-Corporate Sector.
Note: Financial assets do not include the shares issued by the sector and held within the sector. Foreign direct investment in the United States is not a component of debt. (In this article, it is aggregated with net worth.) The distance between the two lines measures the ratio of net liabilities to tangible assets.

market for shares), inflation always cuts into the purchasing power embodied in these assets. (Obviously, deflation would produce the symmetrical effect.) We define the following:

real financial costs = financial costs (interest paid) – devaluation of the debt by inflation
real financial income = financial income – devaluation of financial assets by inflation.

3.2. The financialization of nonfinancial corporations

As a preliminary to the investigation in this section, it is important to note that the measure of financial assets in the flow of funds accounts does not include the stocks issued by a sector and held by this sector (see section A.1 of the Appendix). The rise of these amounts would reflect the increasing ownership of corporations by other corporations. Flow of funds accounts provide the consolidated accounts of the sector, at least concerning shares.

The rising involvement of nonfinancial corporations in financial relations during the neoliberal years, their financialization, is clearly apparent in their accounts:[15]

1. This involvement is manifest in the simultaneous growth of the financial assets and debt of nonfinancial corporations, as documented in Figure 4. The figure presents the ratios of financial assets and debt to tangible assets. After a rise from the 1950s to the mid-1960s to approximately 45 percent and 60 percent, respectively, the two ratios stabilized or even declined during the 1970s.[16] During the two

15. The unit of analysis in Figures 4 and 5 is the NF-corporate sector.
16. A discussion of the rise of indebtedness in the late 1960s and early 1970s can be found in Pollin (1986).

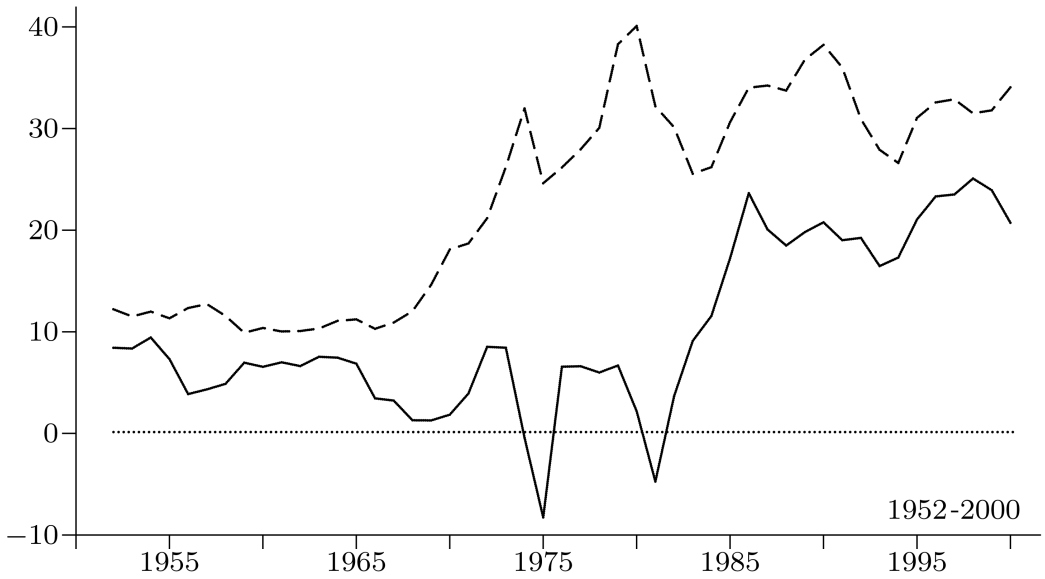

Figure 5.
Ratio of Real Financial Income (—) and Financial Income (– –)
to Profits (%): Nonfinancial-Corporate Sector.
Note: Profits are net product minus labor compensation. The two definitions of financial income are given in section 3.1.

neoliberal decades, they reached a new height, greater than 80 percent. While the rise of debt came to an end during the latter decade, the rise of financial assets remained vigorous.

2. The difference between the second series and the first in Figure 4 measures the ratio of net liabilities to tangible assets.[17] This difference rose from 9 percent in 1952 to 21 percent in 1970. It then declined rather steadily, back to its 1952 level in 1994. Finally, during the late 1990s, it collapsed below zero, as shown by the intersection of the two lines. This is a quite specific and striking feature of the U.S. economy: the net liabilities of nonfinancial corporations are now negative.[18]
3. The rising involvement of nonfinancial corporations into financial relations is also evident from the rise of the proportion of financial income in total profits, as shown in Figure 5. This figure displays two measures of this ratio. The measure that does not correct for the devaluation of financial assets and liabilities by inflation shows a rise of financial income from the late 1960s to the 1980s, approximately from 10 percent to 30 percent. A flow of financial income followed from the rise of interest rates during those years, but this rise was not sufficient to compensate for increasing inflation rates, that is, real interest rates were declining. This is what is shown in the second measure, which considers the effects of inflation. The flow of real financial income became negative. The sudden rise of interest rates, which we denote as the 1979 coup (Duménil and Lévy 2000, 2002b), and the ensuing end of inflation, that is, the rise of real interest rates, accompanied by the progress of financial activity and the rise of the stock market opened a new period. During the last fifteen years, real financial income represented a significant part

17. Obviously, debt/tangible assets – financial assets/tangible assets = net liabilities/tangible assets.

18. Recall that this study does not include foreign direct investment in the United States (FDIUS) in the debt of corporations, but in their net worth. Including FDIUS in the debt, net liabilities would appear positive though smaller than in the previous decades.

Figure 6.
Profit Rates Accounting for (—) and Abstracting from (– –) the Impact of Financial Relations: Nonfinancial Restricted–Corporate Sector.
Note: Profit rates are defined as r_3 as in section 2.2 and r^* as in section 3.3. (– –) in this figure is identical to (– –) in Figure 3.

of total profits, approximately 20 percent. This figure is all the more dramatic because the measure of profits used in this computation is large, prior to the payment of all taxes and interests.

3.3. A measure of the profit rate including the impact of financial relations

The purpose of this section is to determine a measure of the profit rate, including the effect of financial relations. Such a measure can be defined as follows:

$$r^* = (\text{net product} - \text{labor compensation} - \text{all taxes} + \text{real financial income} - \text{real financial costs}) / \text{net worth}.$$

This rate is plotted in Figure 6, for the NFR-corporate sector, jointly with the measure (– – in Figure 3) abstracting from financial relations, for comparison. There is a very sharp contrast between the 1980s and 1990s, on one hand, and the earlier period on the other. The total impact of financial relations (including the effects of inflation) was significant and positive during the earlier decades, in particular the 1960s and 1970s, but was about zero during the decades of neoliberalism.

These observations might appear paradoxical. The impact of financial relations appears large during the Keynesian decades and equal to zero during the neoliberal years, despite the financialization characteristic of this period. We are dealing with nonfinancial corporations, which are simultaneously affected by financial costs and may benefit from financial income. Indeed, financial incomes rose during the past two decades, but financial costs rose even more. How is it that interest received and other financial incomes did not compensate

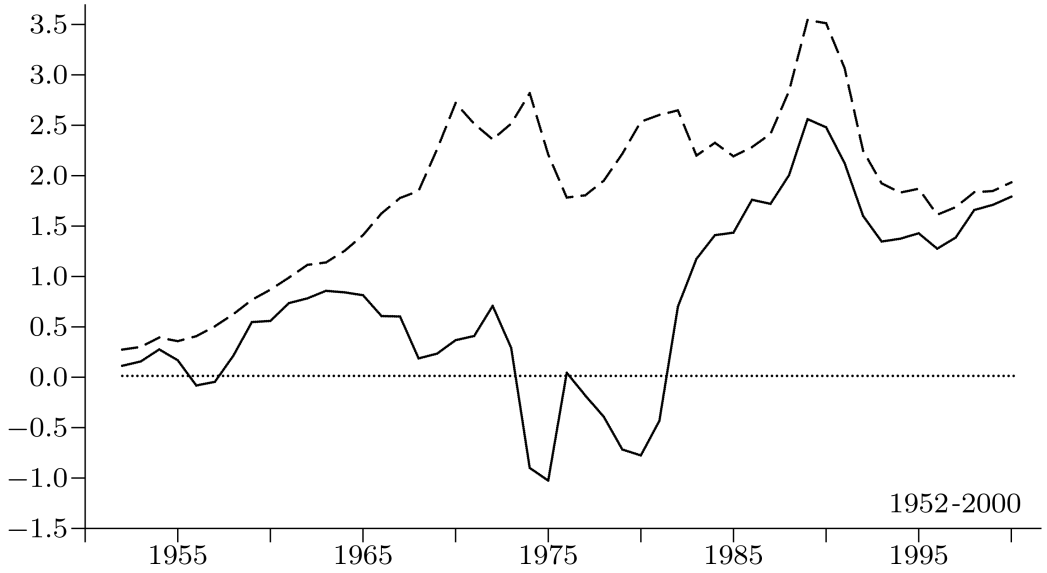

Figure 7.
Ratio of Net Interest to Net Worth, Correcting for the Devaluation of Net Liabilities by Inflation (—) or not (– –) (%): Nonfinancial Restricted–Corporate Sector.

Note: The two series measure the number of percentage points of profit rate, as in r^* in Figure 6, lost as a result of the payment of net interest. The difference between the two series measures the gains resulting from the devaluation of net liabilities by inflation.

for interest paid in a period of declining net liabilities (now null)? The answer is that the cost of borrowing, for corporations, remained higher than the return on their financial assets. Thus, prior to the neoliberal decades, the overall balance of financial relations always worked to the advantage of nonfinancial corporations. This benefit disappeared during the 1980s and 1990s.

Although it is impossible to disconnect the flows that affect profits or the various uses of capital on the asset side of the balance sheet from the transformations in the financing of corporations, it is useful, for analytical purposes, to decompose some of these mechanisms.

3.4. The impacts of interest payments and indebtedness

Indebtedness has two conflicting effects on the profit rate on net worth in comparison to the profit rate on tangible assets: (1) the payment of interest diminishes profits and thus the profit rate, and (2) the profit rate is larger if the net worth is smaller than tangible assets, as is usually the case.

1. Figure 7 plots the ratio of net interest paid to the net worth of the corporations in the NFR-corporate sector. Two ratios are depicted: one considering only the impact of nominal net interest paid and the second adjusting for the devaluation of net liabilities by inflation. This latter ratio exactly measures the number

of percentage points of profit rates on net worth lost because of real interest rates.[19] The effect of negative real interest rates in the 1970s is evident in this figure, as well as the sharp rise in the burden of large real interest rates after the 1979 coup. Note that this burden remains large despite the decline in real interest rates and diminishing indebtedness. This is one component of the pattern apparent in Figure 6.

2. The large reliance on debt in the financing of nonfinancial corporations up to the 1990s had a positive effect on the profit rate on net worth, simply because of the lower contribution of net worth to the financing of tangible assets. A ratio of net liabilities/tangible assets of 21 percent as in 1970 (cf. the distance between the two lines in Figure 4) increases the profit rate by 27 percent of its value.[20] A sharp decrease in indebtedness occurred during the 1990s, up to negative levels, meaning that net worth (including FDIUS) is now larger than total tangible assets. Still, U.S. corporations pay a positive net interest. This means that they pay more interest on their total debt than they earn on their financial assets.

3.5. The profit rate on U.S direct investment abroad

In flow of funds accounts, USDIA[21] is treated as a financial asset and the corresponding income (dividends received, foreign earnings retained abroad, and holding gains on capital) as a financial income (as in the general case of dividends paid by affiliates when the accounts are not consolidated).

It is possible to compute a profit rate on USDIA. The stock of capital is directly provided by the amount of USDIA in the assets of U.S. nonfinancial corporations. In the determination of profits, we add the loss for inflation (computed on total USDIA) to the three above components.

Figure 8 displays the share of profits on USDIA in total profits (i.e., the numerator of the profit rate of U.S. nonfinancial corporations). These profits represent a significant proportion of total profits, on the average 25 percent during the period 1958–2000.[22] Large fluctuations are apparent. The sharp movement downward close to 1982 reflects the rise and fall of the dollar in the early 1980s. (A rise of the dollar devalues foreign holdings, and conversely.) The ratio is now back to its value of 1960.

The profit rate on this investment abroad is plotted in Figure 9, with r^*, the profit rate of the NFR-corporate sector, for comparison. Abstracting from the effect of the sharp fluctuation of the dollar, which is again apparent, two major observations can be made:

1. The profit rate on USDIA is significantly larger than the global profit rate of the NFR-corporate sector. The average values for the two series over the period 1958–2000 are 14.5 percent and 8.5 percent, respectively.
2. The profit rate on USDIA also displays a downward trend, with no sign of recovery in the 1990s.

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19. Abstracting from the fact that, in the absence of net liabilities, net worth would be larger.
20. One has

$$\frac{Profits}{Net\ worth} = \frac{Profits}{Tangible\ Assets}\,\frac{1}{1-\dfrac{Net\ liabilities}{Tangible\ Assets}} \quad \text{and} \quad \frac{1}{1-0.21} = 1.27.$$

21. See the definition in note 14.
22. The series *Dividends received* is available only since 1958. Prior to this date, it must be estimated indirectly.

Figure 8.
Share of Profits on U.S. Direct Investment Abroad in Total Profits: Nonfinancial Restricted–Corporate Sector.
Note: Total profits are defined taking account of financial income and costs, as in the numerator of r^* in section 3.3.

Figure 9.
Profit Rate on U.S. Direct Investment Abroad (—) and Overall Profit Rate of the Sector (– –): Nonfinancial Restricted–Corporate Sector.
Note: The profit rate of the NFR-corporate sector is r^*, as in Figure 6 (—). Profit rate on U.S. direct investment abroad = (dividends received + foreign earnings retained abroad + holding gains – loss for inflation) / U.S. direct investment abroad.

4. The Profit Rate of the Financial Sector

This section is devoted to the definition of the financial sector (section 4.1), the computation of its profit rate, and its comparison with the profit rate of the NFR-corporate sector (section 4.2).

4.1. Definition of the restricted financial sector

The definition of a financial sector poses both empirical and theoretical problems. At issue is the definition of a sector in which (1) sufficient and compatible data are provided by the Federal Reserve (flow of funds accounts) and the BEA (National Income and Product Accounts [NIPA], Gross Product Originating [GPO], and fixed reproducible tangible wealth); and (2) the computation of a profit rate appears relevant.

The two types of problems converge toward the elimination of real estate and funds, both for problems of data availability and economic relevance. This observation is not coincidental. The ambiguous nature of these sectors (between households and a financial sector) led to distinct options in the two accounting frameworks (section 4.1.2). A few other sectors must be eliminated for economic reasons.

4.1.1. Compatibility between sources

Flow of funds accounts do not define a sector denoted as "finance", but they provide the accounts of twenty-four financial subsectors (displayed in Table A1 in section A.2 of the Appendix). The BEA defines a sector labeled "finance," "insurance," and "real estate" with seven subsectors (corresponding to the two-digit standard industrial classification). The major differences are the following:

1. Real estate. It is one of the seven components of BEA financial sectors. This sector does not exist in flow of funds accounts. In particular, residential capital is directly treated as an asset of households.
2. Mutual and pension funds. Funds are not included in the BEA's financial sector, only in flow of funds accounts, where they represent five sectors:
   - private pension funds (119)[23]
   - state and local government employee retirement funds (120)
   - money market mutual funds (121)
   - mutual funds (122)
   - closed-end funds (123)

4.1.2. The relevance of a measurement of profitability

As already mentioned (section 2.1), a sector such as real estate cannot be included in the computation of the profit rate of a financial sector. It is primarily composed of structures (housing or residential capital and nonresidential capital) owned by households (see

23. The figure within parentheses indicates the number of the table in flow of funds accounts. Two tables are provided for flows (F) and levels (L), that is, amounts outstanding; for example, F.119 and L.119 for private pension funds.

note 3). The same is true of mutual and pension funds. They are not corporations and, as such, do not represent an alternative field of investment, like firms in any industry. Funds are treated within flow of funds accounts as a direct collective emanation of the holders of the securities. Their total income is imputed to other agents (in particular households), and they make no profits of their own. (This imputation is made independently of any actual transfer.)

It is also possible to determine the return on these assets, but their consideration would be irrelevant to the comparison with the profitability of the NFR-corporate sector. Capital does not flow between funds and corporations, as in the classical Marxian analysis of competition. What occurred in the past decades is a transfer of holdings from households to funds. The rationale from this movement is distinct from that which governed the movement of capital toward financial activities (between two alternative capitalist fields of investment). Funds concentrate ownership and loans, and their returns should rather be compared to the returns on securities held directly by households.

Once real estate and funds are excluded, the remaining sector is still too large to be considered relevant:

1. Bank personal trusts and estates (116). They represent financial assets belonging to rich households, whose management is delegated. They must be treated as mutual and pension funds, that is, excluded.
2. Government institutions. They must also be excluded since their activity is not aimed at profitability:
   - monetary authority (108)
   - government-sponsored enterprises (124)
   - federally related mortgage pools (125)

The other subsectors form the R-financial sector (details are provided in section A.2 of the Appendix). As will be shown below, the net worth of this sector represents between one-quarter and one-fifth of that of the NFR-corporate sector.

4.2. The profit rate of the restricted financial sector

The profits of the financial sector are made of interest (paid by enterprises, households, and the state), dividends received, various categories of fees, and holding gains on assets. All these sources of income increased considerably during the neoliberal decades.

Figure 10 displays the profit rate of the R-financial sector (see section A.2 of the Appendix), in the definition (r^*) used for the NFR-corporate sector in Figure 6. The profit rate of this latter sector is also plotted for comparison. (A trend line has been drawn for each series; see section A.3 of the Appendix.) The following observations can be made:

1. The values of the two profit rates are of the same order of magnitude. The average values over the period 1952–2000 are, respectively, 8.6 percent and 8.2 percent.
2. The profit rate of the R-financial sector displays strong fluctuations. This basically reflects capital gains, although this series has been slightly smoothed. It is, therefore, useful to consider the two trend lines in Figure 10.
3. The profit rate of the R-financial sector declined up to the 1980s. It recovered strongly during the 1980s and 1990s.

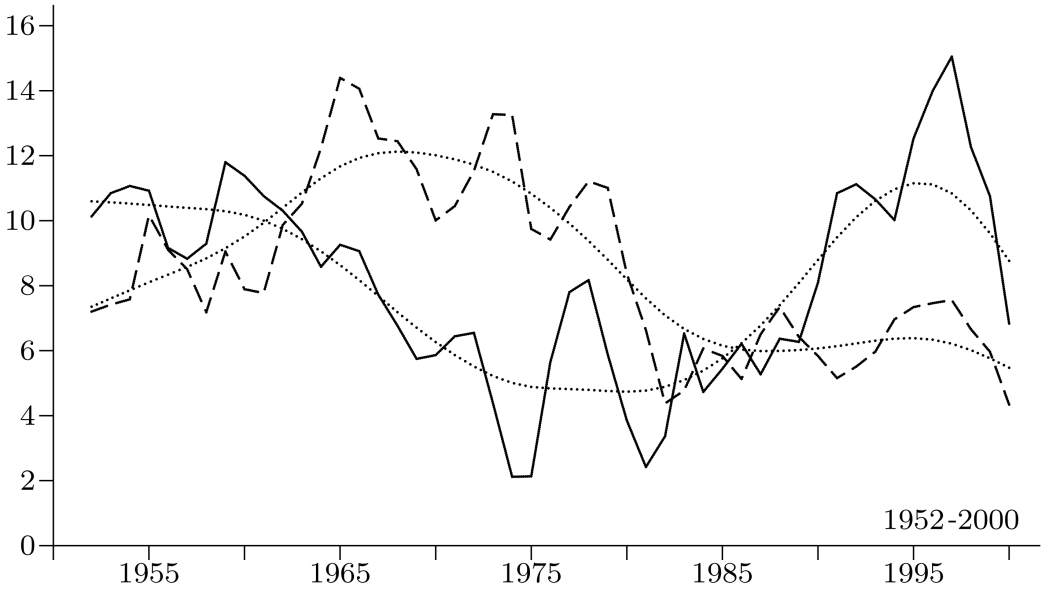

Figure 10.
Profit Rates: Restricted Financial Sector (—) and Nonfinancial Restricted–Corporate Sector (– –).
Note: The two lines (. . . . .) are trend lines.

4. A significant divergence occurred during the 1960s and 1970s to the advantage of the NFR-corporate sector. As shown earlier, these were the years when the financial component of profitability worked in favor of the nonfinancial sector. The inverse was true during the neoliberal decades. Thus, three periods can be distinguished: (1) 1952–61, the profit rate of the R-financial sector was comparatively larger; (2) 1961–86, the inverse was true; and (3) 1986–2000, the preeminence of finance was dramatically restored.

It is certainly possible to refer to a process of gravitation between the two profit rates, with the two following qualifications: (1) comparatively large and lasting fluctuations are observed, that is, the time frame appears longer than for other industries (Duménil and Lévy 2002a), and (2) these movements are clearly influenced by the transformations of policies or, more specifically, the succession of Keynesianism and neoliberalism.

Any economist examining Figure 10 would expect that such modifications of comparative profit rates initiated the migration by capital seeking larger profit rates.[24] Figure 11 shows the profile of the net worth of the R-financial sector as a proportion of that of the NFR-corporate sector. This ratio fluctuated between about 18 percent and 30 percent. The flows of capital clearly responded to the pattern of relative profitability: (1) 1958–62, toward finance; (2) 1962–83, away from finance;[25] and (3) 1983–2000, a rush toward finance. Changes in policy induced sudden transformations, and capital flows responded to these transformations, but the rapidity and intensity of these movements were not sufficient to completely avoid divergence. The change in relative profitability followed from the new

24. See Marx ([1894] 1981), chapter 10. On this issue, Marx basically followed Smith and Ricardo.

25. The profit rate during those years declined in both sectors. The trends are not at issue here, only the comparative levels.

Figure 11.
Net Worth of the Restricted Financial Sector as a Proportion of the Net Worth of the Nonfinancial Restricted–Corporate Sector.

neoliberal pattern of incomes from the 1980s onward. As can be seen in Figure 10, the decline of the profit rate in the 1970s was observed both within the nonfinancial and financial sectors, and the profitability of the financial sector was smaller since the beginning of the 1960s.

There is an overall coherence between these measurements: (1) the values of the profit rates of the nonfinancial and financial sectors are similar, and (2) the varying discrepancy between the two profit rates appears in line with the distribution of capital between the two sectors. In our opinion, these observations strengthen the consistency of these computations.

5. Summary of the Main Results

The main results can be summarized as follows:

1. A large heterogeneity exists among industries, concerning a subset of industries such as railroad transportation or public utilities, that we label extremely capital-intensive industries. They simultaneously contribute little to the national net product and use very large amounts of capital in comparison to employment or output. Their profit rate is exceptionally low and not trended as in other industries (see Figure 2), signaling a problem of measurement, an unidentified basic characteristic, or both. They are excluded from the present study.
2. In a definition of the profit rate abstracting from financial relations (measured after tax but prior to the payment of interest and over tangible assets), the profit rate of the nonfinancial corporate sector displays the now familiar pattern in three phases (see Figure 3): (1) the rise into the 1960s bulge, (2) the de-

cline from the mid-1960s to the early 1980s, and (3) a recovery to the levels of the 1950s. The profile of inventories (a significant share of tangible assets) and, to an even larger extent, of taxation corrected significantly for the declining overall trend.

3. The process of financialization characteristic of neoliberalism is manifest in the accounts of nonfinancial corporations. This is apparent in the sharp rise of their financial income and in the increased holding of financial assets from the 1980s onward (see Figures 4 and 5).
4. The consideration of the financial relations of nonfinancial corporations significantly affects profit rates (see Figure 6). By financial relations, we mean (1) the inclusion in profits of net interest, dividends received, holding gains on assets, profits reflecting the devaluation of net liabilities by inflation, and (2) the substitution of net worth for tangible assets. Prior to 1982, they always increased profit rates, in a configuration favorable to nonfinancial corporations. This was already the case during the 1950s prior to the rise of inflation, but this feature was strengthened during the 1970s. (During the 1970s, the average of the profit rate was 7.0 percent, abstracting from financial relations, and 10.9 percent, considering their effects.) This resulted from the prevalence of low real interest rates. The end of inflation and large interest rates during the neoliberal decades modified this situation. The two measures of the profit rate are now practically equal: the payment of real interest rates nullified the financial gains.
5. The burden of real interest rates still diminished profit rates by 1.6 percentage points, from 7.7 percent to 6.1 percent on the average between 1983 and 2000 (see Figure 7). This induced corporations to rely less and less on indebtedness to finance their activity. Correspondingly, the consideration of net worth instead of tangible assets in the measure of profitability accounting for financial relations diminishes the stock of capital, increasing profitability, but the amplitude of this effect was gradually reduced. Overall, corporations benefited, in the 1970s, from the large reliance on indebtedness at a low cost, and this pattern was reversed during the 1980s and 1990s.
6. It is possible to compute a specific profit rate for USDIA, treated in the national accounting framework as a financial asset but whose "financial" character is questionable. Profits (holding gains, profits retained abroad, and dividends) on USDIA account for a significant fraction of profits of U.S. nonfinancial corporations: nearly one-quarter (see Figure 8). The profit rate on USDIA appears larger than the one concerning domestic activity, but it also displays a declining trend (see Figure 9).
7. There would be no meaning in computing the profit rate of an entire financial sector, aggregating all financial sectors in flow of funds accounts, or considering the BEA's sector: finance, insurance, and real estate. What must be excluded are (1) the government sector, which must not be considered in a study of profitability; (2) mutual and pension funds whose functioning is different from that of financial corporations and treated in a thoroughly different manner in the accounts; and (3) real estate, mostly composed of housing owned by households. A narrower financial sector can be constructed. Its net worth represents between one-fourth and one-fifth of that of nonfinancial corporations. The value of the profit rate of this financial sector is similar to that of nonfinancial corporations (see Figure 10). It also declined up to the 1980s and then recovered. There is, however, a significant policy, or even political, component in these movements. In particular, the low real interest rates during the Keynesian treatment of the crisis in the 1970s (besides poor financial markets) were reflected in the comparatively low profit rates of the financial sector. Conversely, the new neoliberal course of events provoked a sharp comparative rise in the profit rate in the financial sector during the 1980s and 1990s. Despite these rather large fluctuations, one can refer to a gravitation, in the classical Marxian sense of the term.
8. Independent of its causes, the divergence between the profit rates of the two sectors commanded the relative investment of capital, what Marx denoted as the mobility of capital, as shown by the comparative size of the net worth of the two sectors (see Figure 11).

Appendix

This Appendix provides information concerning the main sources, problems, and computations. The first section is devoted to the nonfinancial restricted (NFR)–corporate sector, the second to the R-financial sector, and the third to various additional issues.[26]

All data have been read on the Web at the following addresses:

1. Flows of funds accounts: http://www.federalreserve.gov/releases/z1/current/data.htm/; the variables are listed in "Flows of Funds Accounts of the US, Z.1 Coded Tables," http://www.federalreserve.gov/releases/z1/current/Coded/coded.pdf
2. National income and product accounts (NIPA): http://www.bea.doc.gov/bea/dn/nipaweb/index.asp
3. Fixed asset tables: http://www.bea.doc.gov/bea/dn/faweb
4. Gross product originating (GPO), gross domestic product by industry estimates: http://www.bea.doc.gov/bea/dn2/gpo.htm

A.1. The Nonfinancial Restricted–Corporate Sector

Main sources

NIPA, Table 1.16, Nonfinancial Corporate:

Y	21[27]	Net product
W	24	Compensation of employees
Π	30	Profits after tax
CFC	20	Consumption of fixed capital
CCA	20 + 34	Capital consumption allowances = consumption of fixed capital + capital consumption adjustment
IVA	33	Inventory valuation adjustment
INT	35	Net interest (interest paid – interest received)

NIPA, Table 8.19, Dividends Paid and Received by Sector:

DVD	9	Dividends received, domestic corporate business, nonfinancial

Flow of funds accounts, Table R.102, Change in Net Worth of Nonfarm Nonfinancial Corporate Business:

HG	14 + 18	Holding gains on assets = mutual fund shares + U.S. direct investment abroad

Flow of funds accounts, Table B.102, Balance Sheet of Nonfarm Nonfinancial Corporate Business:

K	4 + 32 + 33	Tangible assets stated at replacement cost = equipment + residential + nonresidential
INV	5	Inventories
FA	6	Financial assets
L	20	Liabilities

26. This Appendix does not cover all technical difficulties. For example, it does not discuss the break observed in some variable of flow of funds accounts in 1974, the estimates of dividends received prior to 1958, the prolongation of a few series after 1997, or the estimates of inventories.

27. These figures refer to the lines in the table.

Flow of funds accounts, Table L.102, Nonfarm Nonfinancial Corporate Business, Amounts Outstanding:

FDI	37	Foreign direct investment in the United States

Consolidation

Within flow of funds accounts, the corporate equities issued by nonfinancial U.S. corporations and held in the sector (therefore simultaneously issued and held in the same sector) are not included within the financial assets and thus in the net worth of the sector. The corporate equities, which appear within financial assets, are mainly composed of U.S. direct investment abroad (USDIA) (in particular, U.S. affiliates). Correspondingly, the dividends received from other U.S. corporations are not included in dividends received. Thus, the sector is treated globally in this accounting framework as a single consolidated corporation. It is the profit rate of this "corporation" that can be studied.

Foreign direct investment in the United States

This account is, for the most part, the sum of the net worth (shares and reinvested earnings) of the affiliates in the United States of foreign corporations. It also includes intercompany accounts. We treat these amounts as components of net worth (owned by foreign corporations) in the United States and not as liabilities as is the case in flow of funds accounts.[28] This modifies the definition of net liabilities (NL) and of the net worth (NW) of corporations:

$$NL = (L - FDI) - FA \text{ instead of } L - FA$$

$$NW = (K + INV) - NL.$$

We will also use flow of funds accounts, Table F.102, Nonfarm Nonfinancial Corporate Business, Flows:

FERA	6	Foreign earnings retained abroad

Extremely capital-intensive industries: corporations and others

The definition of extremely capital-intensive industries is provided in the Appendix of a previous paper on the gravitation of industrial profit rates (Duménil and Lévy 2002a). Only the oil industry is treated differently in the present article. In the Bureau of Economic Analysis (BEA) classification, oil is divided into two components: oil and gas extraction, a component of mining, and petroleum and coal products, a component of manufacturing, nondurable goods. (This industry is actually the fifth-most capital-intensive industry after the four other extremely capital-intensive industries [see Figure 1 in Duménil and Lévy 2002a].) The breakdown of oil appears questionable. We treat these industries globally, including the two components into the extremely capital-intensive industries.[29]

Most extremely capital-intensive industries are formed of corporations (100 percent for railroads), but not all of them. The problem is, therefore, to subtract only extremely capital-intensive corporations from all corporations, instead of the entire sector of extremely capital-intensive industries—a small correction. Apart from the variable corporate profits after tax, that is available in NIPA (Table 6.19). Data concerning these extremely

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28. The corresponding elements of the balance sheet, fixed capital, inventories, financial assets, and debts to agents other than the parents are, of course, included in the balance sheet of nonfinancial corporations.

29. In the analysis of extremely capital-intensive industries, we use variables from national income and product accounts (NIPA) and gross product originating (GPO). All variables of NIPA and GPO are estimated on an establishment-industry basis, with the exception of three variables in NIPA (profits before and after tax and capital consumption allowance), which are computed on a company-industry basis. The combination of these two sources, as well as of the two types of variables in NIPA, is always an approximation. This can be done when the two definitions are not too different. This is not so for the two components of oil considered separately. The consistency between GPO and NIPA series is far more satisfactory for the entire oil industry.

capital-intensive corporations can be obtained from GPO. Some variables in GPO are broken down between the corporate and noncorporate segments. This is, for example, the case for capital consumption allowances or net interest, but wages (or fixed capital in tangible wealth) are treated globally. We use relative capital consumption allowances as a proxy variable for the relative size of the corporate and noncorporate segments of extremely capital-intensive industries. On the average, over the period 1952–2000, the weight is 92 percent for the corporate segment.

We derive an estimate of the net liabilities of the corporate fraction of extremely capital-intensive industries from their flow of net interest. To this end, we assume that the apparent interest rate on their net liabilities (the ratio of net interest to net liabilities) is the same for these industries as for others within the NF-corporate sector. Concerning the real net financial costs (section 3.3), we assume that the ratio of this variable to the flow of net interest is the same for the corporate component of extremely capital-intensive industries and the entire NF-corporate sector. The determination of net liabilities allows for that net worth (tangible assets – net liabilities), and the correction for inflation can be performed.

Farm

Sector 102 in flow of funds accounts excludes farm, in addition to finance (nonfarm, nonfinancial corporate business). In NIPA and tangible wealth, there is a farm industry in the corporate sector. Our NFR-corporate does not consider corporations belonging to the farm industry (a small element). The determination of the variables for the farm corporate sector is performed along the same lines as for the corporate segment of the extremely capital-intensive industries.

Capital consumption

Two measures of depreciation are available: capital consumption allowances (closer to enterprises' depreciation) and consumption of fixed capital (national accounting estimate). The difference between the two is the capital consumption adjustment. Because of the findings made in earlier research (Duménil and Lévy 2002a), we consider capital consumption allowances a more appropriate measure of depreciation. Figure A1 displays the ratio of capital consumption allowances to the stock of fixed capital at historical and current costs. The following observations can be made:

1. The upward trends reflect the shortening of the service life of capital.
2. The ratio of capital consumption allowances to the stock of fixed capital at historical cost mirrors important changes in IRS rules in the 1980s and 1990s.
3. In the ratio of capital consumption allowances to the stock of fixed capital at current cost, an additional perturbation is created by the effect of inflation during the 1970s. (Capital consumption allowances do not match the current cost of capital.)

It is useful to correct for these fluctuations of capital consumption allowances that do not correspond to the transformation of technology. We substitute a trend line, CCA*, for the actual series, CCA, as shown in the figure, and $\Pi' = \Pi + CCA - CCA^*$, for profits after tax, Π.

Holding gains on assets

Holding gains on USDIA reflect (1) the fluctuations of the rate of exchange of the dollar and (2) the movements of foreign stock exchanges. We slightly smooth the curves to avoid very short fluctuations. (The same procedure is used for the gains on mutual funds.)

Profit rates

The profit rates are defined as follows:

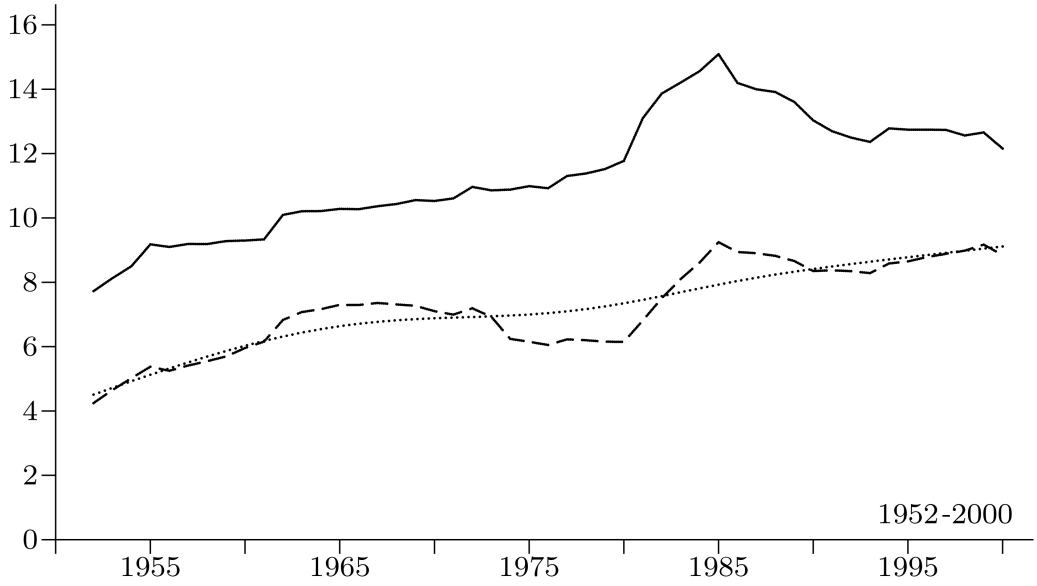

Figure A1.
Ratio of Capital Consumption Allowances to the Stock of Fixed Capital
at Historical (—) and Current Costs (– –) (%): Nonfinancial Restricted–Corporate Sector.
Note: The doted line (. . . . .) denotes the rates actually used.

$$r_1 = \frac{Y' - W}{K}, \quad r_2 = \frac{Y' - W}{K + INV}, \quad \textit{and} \quad r_3 = \frac{\Pi' + INT}{K + INV},$$

with Y′ = Y + (CCA* – CFC) – IVA, so that all profits can be determined coherently without adjustments. These profit rates are never used for the financial sector. The profit rate including the impact of financial relations r^* of section 3.3 is defined in section A.3.

A.2. The Restricted Financial Sector

Problems

To compute the profit rate of the R-financial sector, five variables must be determined: fixed capital, net liabilities, profits after tax, dividends received, and holding gains. (These two latter components mostly correspond to the holding of corporate equities.) The sources are the following:

1. Flow of funds accounts, for net liabilities and holding gains on assets
2. Fixed assets tables wealth, for fixed capital
3. NIPA, for profits after tax and dividends received

For the variables provided by flow of funds accounts, that is, net liabilities and holding gains on assets, it is easy to set aside the subsectors eliminated (mutual and pension funds, bank personal trusts and estates, and government institutions). The variables coming from the BEA must be discussed:

1. NIPA, profits after tax and dividends received
   - A few tables, in particular concerning profits after tax, decompose banking into Federal Reserve banks and commercial and mutual banks. Thus, it is possible to subtract the profits after tax of the Federal Reserve (which are nearly equal to zero).
   - Consider the two other government institutions, government-sponsored enterprises and federally related mortgage pools. The first has a line gross savings, whose value is very weak, in comparison to the after-tax profits of the total R-finance. It would even be smaller when determined after taxes and depreciation. The second has no gross savings. The profits after tax of these two subsectors can be considered null.
   - Bank personal trusts and estates. These institutions manage the financial assets of some households. It is the only sector excluded from the R-financial sector, which holds equities and thus receives dividends. NIPA treats these amounts as if they were directly held by households. The total income (net interest + dividends received) of bank personal trusts and estates is imputed to households (i.e., is treated as an expense for bank personal trusts and estates, labeled imputed interests paid, independently of any actual transfer). Bank personal trusts and estates make no profits of their own. It is, therefore, equivalent to keep the entire sector, as we do, or to exclude it.

   Thus, the profits after tax and dividends received of the R-financial sector can be determined as those of NIPA's financial sector excluding real estate and Federal Reserve banks for profits.
2. Fixed capital. Using flow of funds accounts, we compute the ratio of gross physical investment in the R-financial sector to investment in total finance minus funds and real estate investment trusts. For the average of the period 1952–2000, this ratio was equal to 0.98. Thus, we make the assumption that the R-financial sector holds all the capital stock of finance, insurance, and real estate minus real estate (as read in tangible wealth).

Main sources

Tangible wealth. Flow of funds accounts do not provide the tangible assets for financial subsectors. We use fixed assets tables, Table 3.1ES, Current-Cost Net Stock of Private Fixed Assets, by Industry:

KFRE	Finance, insurance, and real estate
KRE	Real estate
K	KFRE – KRE

NIPA, Table 8.19, Dividends Paid and Received by Sector:

DVD	8	Dividends received, domestic corporate business, financial

NIPA, Table 6.19, Corporate Profits after Tax by Industry:

PATFRE	51	Finance, insurance, and real estate
PATFE	59	Real estate
PAT	PATFRE – PATRE	

Flow of funds accounts. The variables for the R-financial sector are obtained by aggregating the variables for the subsectors (when they exist). In most cases, we use the amounts outstanding for each subsector (the numbering of the lines depends on the tables). We denote the following:

F	Financial assets
L	Liabilities
CE	Corporate equities
MF	Mutual fund shares

We also use a table by instruments (230):

FDI	Foreign direct investment in the United States
USDIA	U.S. direct investment abroad

We can determine net liabilities and net worth (with the same assumption concerning FDIUS as in the case of the NF-sector):

$$NL = (L - FDI) - FA$$

$$NW = K - NL.$$

We also need flow variables: ce, mf, and usdia denote the flow associated with CE, MF, and USDIA. Note that, for mortgage companies (128) and funding corporations (131), one has

$$FA = L, \quad CE = MF = FDI = USDIA = 0$$

$$\text{Gross savings} = 0, \quad \textit{and} \quad \text{Fixed investment} = 0.$$

Their net worth and the various components of profits are null, and it is equivalent to include or exclude them.

Table A1 summarizes the results of the selection. The subsectors retained as components of the R-financial sector are in boldface.

Table A1
Financial Subsectors in Flow of Funds Accounts

108	Monetary authority
109	**Commercial banking**
110	**U.S.-chartered commercial banks**
111	**Foreign banking offices in the United States**
112	**Bank holding companies**
113	**Banks in U.S.-affiliated areas**
114	**Savings institutions**
115	**Credit unions**
116	Bank personal trusts and estates
117	**Life insurance companies**
118	**Other insurance companies**
119	Private pension funds
120	State and local government employee retirement funds
121	Money market mutual funds
122	Mutual funds
123	Closed-end funds
124	Government-sponsored enterprises
125	Federally related mortgage pools
126	**Issuers of asset-backed securities**
127	**Finance companies**
128	Mortgage companies
129	Real estate investment trusts
130	**Security brokers and dealers**
131	Funding corporations

Note: R-financial sector = 109 + 114 + 115 + 117 + 118 + 126 + 127 + 130 (play no role: 128 and 131). Excluded: funds = 119 + 120 + 121 + 122 + 123; personal trusts = 116; real investment trusts = 129; government = 108 + 124 + 125.

Computations

Proprietors' income

Most of the financial subsectors are incorporated. (The main exception concerns security brokers and dealers.) The income of self-employed persons (proprietors' income) is not divided between profits and compensation. We decompose their income into the sum pseudoprofits + pseudocompensation (see Duménil and Lévy 2002a). All variables (from NIPA and GPO) are the differences between the series for finance, insurance, and real estate. We use the following:

GPO		
PROINC	Proprietors' income	
NIPA		
W	Table 6.2	Compensation of Employees
FTPT	Table 6.4	Full-time and Part-time Employees
PBT	Table 6.17	Corporate Profits before Tax
PAT	Table 6.19	Corporate Profits after Tax
FTE	Table 6.5	Full-time Equivalent Employees
PEP	Table 6.8	Persons Engaged in Production

We estimate the pseudoprofits of self-employed persons for the R-financial sector, as follows:

w = W/FTPT	Average wage rate for the sector
SELF = PEP-FTE	Number of self-employed persons
PSPBT = PROINC – w*$SELF$	*Pseudoprofits before tax*
TX = PAT/PBT	Rate of taxation on corporate profits
PSPAT = TX*PSPBT	Pseudoprofits after tax[30]
Π = PAT + PSPAT	Profits and pseudoprofits after tax

Holding gains on assets

A table provides holding gains on assets for the NF-corporate sector, but this is not the case concerning finance. By definition, holding gains is the fraction of the variation of the amounts outstanding that is not explained by the corresponding (net) flow. For example, the holding gains (HG) on the amounts of corporate equities outstanding (CE) is equal to the variation of this "stock" during the period, minus the net flow of new acquisitions (ce) during the period:

$$HG(CE) = CE_t - CE_{t-1} - ce_t.$$

We estimate the holding gains on assets as

$$HG = HG(CE) + HG(MF) + HG(USDIA).$$

Foreign earnings retained abroad

Foreign earnings retained abroad (FERA) is also available only for the NF-corporate sector. Only the corresponding amounts outstanding (USDIA) are provided for finance. We make the assumption that the ratio FERA/USDIA is identical for the financial sector and the NF-corporate sector. This allows for an estimate of FERA for the R-financial sector.

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30. The same rate of taxation of corporate profits is used for pseudoprofits.

A.3. Miscellaneous

The devaluation of debt by inflation

The inflation rate, *j*, is the implicit price deflator of gross domestic product (GDP), as read in NIPA, Table 7.1, Quantity and Price Indexes for GDP, line 4.

Inflation diminishes the value of the debt in constant dollars, that is, transfers wealth from the lender to the borrower. It is possible to look at this mechanism in terms of interest rates. The real interest rate i_R is equal to the nominal interest rate *i* minus the inflation rate *j*: $i_R = i - j$. Multiplying both sides of this equation by the stock of net liabilities shows that the "real" income transfer is equal to interest paid, *i*NL, minus the devaluation of debt, *j*NL:

$$i_R\text{NL} = i\text{NL} - j\text{NL}. \text{ The correction made is COR} = j\text{NL}.$$

An alternative, and practically equivalent, approach concerning the debt allows for the joint treatment of all price effects, including capital gains. The value of all components of the balance sheet is affected by the variation of their price: the price of fixed capital changes, the price of the stock of shares held within financial assets, is altered by the movements of the stock market, and so on. All of these variations (positive or negative) are included in the computation of profits, and the average inflation rate is subtracted from the profit rate determined in this manner.

Assume a balance sheet in which all monetary and financial assets and liabilities are conserved nominally (i.e., excluding elements such as shares) and the price of fixed capital follows average inflation. By definition, the net worth is K – NL, and the profit rate computed as suggested above is

$$r = \frac{\Pi + jK}{K - NL} - j = \frac{\Pi + jNL}{K - NL}.$$

Thus, the correction is *j*NL, as above.

*Definition of r**

The profit rate of the NF-corporate sector including the effect of financial relations and of the R-financial sector is

$$r^* = \frac{\Pi + HG + DVD + COR + FERA}{NW}.$$

Trend lines

Trend lines are determined using Hodrick-Prescott filter with $\lambda = 100$ in Figure 10 and $\lambda = 1{,}000$ in Figure A1. For holding gains on assets, we use $\lambda = 1$. (A small value of λ corresponds to a very flexible line and a large value to a rigid line.)

References

Bargas, S. E. 2000. Direct investment positions for 1999. *Survey of Current Business*, July.

Duménil, G., and D. Lévy. 2002a. The field of capital mobility and the gravitation of profit rates (USA 1948-2000). *Review of Radical Political Economics* 34: 417–36.

———. 2002b. The nature and contradictions of neoliberalism. In *A world of contradictions (Socialist Register 2002)*, ed. L. Panitch and C. Leys, 97–119. New York: Monthly Review Press.

———. 2002c. The profit rate: Where and how much did it fall? Did it recover? (USA 1948-2000). *Review of Radical Political Economics* 34: 437–61.
———. 2004. *Capital resurgent: The roots of the Neoliberal Revolution*. Harvard: Harvard University Press.
Hilferding, R. [1910] 1981. *Finance capital: A study of the latest phase of capitalist development*. London: Routledge and Kegan Paul.
Marx, K. [1894] 1981. *Capital, volume III*. New York: First Vintage Book Edition.
Pollin, R. 1986. Alternative perspectives on the rise of corporate debt dependency: The U.S. post-war experience. *Review of Radical Political Economics* 18 (1–2): 205–35.

Additional Reading

Brenner, R. 1998. The economics of global turbulence. *New Left Review* 229: 1–264.
Duménil, G., M. Glick, and D. Lévy. 1993. The rise of the profit rate during World War II. *Review of Economics and Statistics* 75 (2): 315–19.
Duménil, G., M. Glick, and J. Rangel. 1984. The tendency of the rate of profit to fall in the United States, part 1. *Contemporary Marxism* 9: 148–64.
———. 1985. The tendency of the rate of profit to fall in the United States, part 2. *Contemporary Marxism* 11: 138–52.
———. 1987. The rate of profit in the United States. *Cambridge Journal of Economics* 11 (4): 331–60.
Duménil, G., and D. Lévy. 1990. Post depression trends in the economic rate of return for U.S. manufacturing. *Review of Economics and Statistics* 72 (3): 406–13.
———. 1992. The historical dynamics of technology and distribution: The U.S. economy since the Civil War. *Review of Radical Political Economics* 24 (2): 34–44.
———. 1993. *The economics of the profit rate: Competition, crises, and historical tendencies in capitalism*. Aldershot, UK: Edward Elgar.
———. 1996. *La dynamique du capital. Un siècle d'économie Américaine*. Paris: Presses Universitaires de France.
Kleinknecht, A., E. Mandel, and I. Wallerstein, eds. 1992. *New findings in long wave research*. London: Macmillan.
Lianos, T. 1992. The rate of surplus value, the organic composition of capital and the rate of profit in Greek manufacturing. *Review of Radical Political Economics* 24 (1): 136–45.
Moseley, F. 1988. The rate of surplus value, the organic composition of capital, and the general rate of profit in the U.S. economy, 1947-1967: A critique and update of Wolff's estimates. *American Economic Review* 78 (1): 298–303.
———. 1990. The decline of the rate of profit in the postwar U.S. economy: An alternative Marxian explanation. *Review of Radical Political Economics* 22 (2–3): 17–37.
———. 1992. *The falling rate of profit in the postwar United States economy*. New York: St. Martin's.
Moseley, F., and E. Wolff, eds. 1992. *International perspectives on profitability and accumulation*. Aldershot, UK: Edward Elgar.
Reati, A. 1990. *Taux de profit et accumulation du capital dans l'onde longue de l'après-guerre*. Bruxelles: Éditions de l'Université de Bruxelles.
Shaikh, A. 1987. The falling profit rate and the economic crisis in the U.S. In *The imperiled economy: Macroeconomics from a left perspective, book I*. New York: Union for Radical Political Economics.
———. 1992. The falling rate of profit as the cause of long waves: Theory and empirical evidence. In *New findings in long wave research*, ed. A. Kleinknecht, E. Mandel, and I. Wallerstein, 174–195. London: Macmillan.
Tsaliki, P., and L. Tsoufildis. 1994. Profitability and accumulation in Greek manufacturing. *International Review of Applied Economics* 8 (1): 46–62.

Union for Radical Political Economics, ed. 1987. *The imperiled economy: Macroeconomics from a left perspective, book I*. New York: Union for Radical Political Economics.

Weisskopf, T. E. 1979. Marxian crisis theory and the rate of profit in the postwar U.S. economy. *Cambridge Journal of Economics* 3 (4): 341–78.

———. 1985. The rate of surplus value in the postwar U.S. economy: A response to Moseley's critique. *Cambridge Journal of Economics* 9 (1): 81–84.

Wolff, E. 1979. The rate of surplus value, the organic composition, and the general rate of profit in the U.S. economy, 1947-1967. *American Economic Review* 69 (3): 329–41.

———. 1988. The rate of surplus value, the organic composition of capital, and the general rate of profit in the U.S. economy, 1947-1967: Reply. *American Economic Review* 78 (1): 304–6.

———. 1992. Structural change and the movement of the rate of profit in the USA. In *International perspectives of profitability and accumulation*, ed. F. Moseley and E. Wolff, 93–121. Aldershot, UK: Edward Elgar.