
Capital Accumulation and the Rate of Profit in the Postwar Greek Economy

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THE POSTWAR GREEK ECONOMY IS CHARACTERIZED BY A number of structural changes that occurred during the decades of the 60s and 70s which, nevertheless, left their marks to more recent years. In our view, the most important change refers to the unprecedented growth of the net fixed capital stock, i.e., accumulated net investment, whose overall increase during the period 1958-1977 was 226%. Similarly, the net investment increased by 255%, whereas its annual average growth rate was 6.67%.¹

A salient feature of the economy is that the increase in the net investment was dramatic during the period 1958-1973. The overall increase was 400% with an annual average growth of 10.7%, whereas, in the period of 1973-1977, the overall growth in net investment was negative 28.38% with an annual average growth rate equal to minus 8.34%. In addition, considering the period 1973-1985 as a whole, we observe that changes initiated in 1973 were extended in recent years in a rather striking way, since during these years the overall increase in the net investment was negative 52.44% with an average annual growth of minus 6.17%.

A corollary of these changes was the drastic reduction in the rate of accumulation, i.e., growth rate expressed as the ratio of net investment to net fixed capital stock. During the period 1958-1973, the rate of accumulation increased by 83.6%, and at a robust annual average growth rate 4.05%. By contrast, in the period 1973-77, the growth rate displayed an overall decrease of minus 40.68% with an annual average growth of negative 13%. In addition, the changes occurred in the last

We wish to thank Anwar Shaikh, Edualdo Da Silva, Yiorgos Chouliaras, and Thanasis Maniatis for their valuable comments on previous versions of the article.

¹Data on net fixed capital stock and net investment in constant prices of 1970 are taken from: Th. Skoutzos and Y. Matheos, "Net Fixed Capital Stock, Depreciation of Fixed Capital, Gross Fixed Capital Formation, 1950-1985," *Center of Planning and Economic Research* (Athens, 1986) mimeo.

period of our research continued to more recent years, i.e., during the period 1973-85, the overall growth in the rate of accumulation was negative 70.3%, whereas, its annual average growth rate was minus 10.1%.

The continuous growth in the net capital stock of the postwar Greek economy reflects its rapid transformation from an agricultural underdeveloped economy to an industrialized one and the concomitant mechanization of its production processes. As a result, the share of agricultural output in the gross domestic product (GDP) dropped significantly, i.e., from 23% in 1958 to 18% in 1970 and to 14% in 1977. By contrast, the share of manufacturing output in the GDP increased noticeably, i.e., from 13.7% in 1958 augmented to 19% in 1970 and to 21.3% in the last year of our research.² Similar results follow for the employment, i.e., agricultural employment declined considerably as opposed to the employment in manufacturing and services.³

This discussion does not intend to serve as a summary of the modern Greek economic history, but rather, to underscore the fundamental structural change that occurred during these two decades, i.e., 1958-1977 and since then became a chronic feature of the economy. Consequently, the study of these two decades and the interpretation of the structural change are imperative to understand the most recent stage of the economy. However, any study of capital accumulation, as well as of investment spending is absolutely indispensable to be accompanied by a theory of profitability and income distribution.

In what follows, we provide an explanation of the accumulation process of the Greek economy by utilizing the fundamental marxian variables of the rate of surplus-value, the rate of profit, and the value composition of capital. In Marx's analysis of capitalism, the rate of surplus-value forms the basis for income distribution between the workers and the owners of capital. Whereas, the value composition of capital reflects the development of productive forces in a capitalist economy, i.e., the degree of its mechanization. Both variables are partial expressions of the accumulation process, since they are the determinants of the rate of profit which, in turn, by governing the pace of investment, regulates the rhythm of accumulation. Consequently, the process of capital accumulation of an economy is rendered transparent through the estimation of these economic variables which therefore became the object of an ongoing research of economists in many

²Data on GDP were taken from *National Income and Product Accounts of Greece 1948-1970* and *The Greek Economy in Figures* (Athens, 1986), p. 84.

³It is worth noting that only a small portion of the reduction in agricultural employment has been absorbed in the domestic industries. The rest had to migrate to foreign countries.

countries. However, the research in Greece began recently.⁴

This paper aims at contributing to this endeavor by estimating the rate of surplus-value, the value composition of capital, and the rate of profit for the Greek economy in the period 1958-77. In so doing, however, we concurrently provide an interpretation of the accumulation process and the concomitant structural changes. The first section briefly introduces Marx's discussion of productive-unproductive labor and how this distinction is articulated with the categories of value, surplus-value, and the rate of profit. The second section refers to the data used and how they can be transformed into the fundamental marxian categories. The final section presents the results, as well as some ideas on their meaning and implications. Our analysis demonstrates that the structural changes that occurred in the postwar Greek economy are explained by referring to the dynamics of the rate of profit and its components, i.e., rate of surplus-value and value composition of capital. Furthermore, some popular economic and political conclusions, e.g., the structure of the Greek economy is unproductive, characterized by over consumption, low productivity, etc., are shown to be unfounded.

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The distinction of labor activity into productive and unproductive has been the subject of much debate — theoretical and empirical — in the marxian literature. Since our purpose is not to inquire into the nature of this debate, we shall restrict ourselves to what is absolutely essential for our research and, at the same time, generally theoretically

⁴In the U.S. and other countries, the most important researches are: J. Gillman, *The Falling Rate of Profit* (New York, 1958); S. Mage, "The Law of the Falling Tendency of the Rate of Profit," unpublished Ph.D. Thesis (Columbia University, 1963); A. Shaikh, *National Income Accounts and Marxian Categories* (New School for Social Research, 1978), mimeo; A. Shaikh, *Toward a Critique of Keynesian Economics* (New School for Social Research, 1980), mimeo; A. Shaikh, "The Falling Rate of Profit and the Economic Crisis in the U.S.," *The Imperiled Economy, Book 1, Union for Radical Political Economy* (New York, 1987); E. Wolff, "The Rate of Surplus-value, the Organic Composition and the General Rate of Profit in the U.S. economy, 1947-67," *American Economic Review*, 69, 3 (1979); A. Amsden, "An International Comparison of the Rate of Surplus-value in Manufacturing Industry," *Cambridge Journal of Economics*, 5 (1981); F. Moseley, "Marx's Concept of Productive Labor and Unproductive Labor: An Application to the Post-war U.S. Economy," *Eastern Economics Journal*, 9, 3 (1983); F. Moseley, "The Rate of Surplus-value in the Postwar U.S. Economy: A critique of Weisskopf's estimates," *Cambridge Journal of Economics*, 9 (1985); D. Gordon, T. Weisskopf, and S. Bowles, "Power, Accumulation, and Crisis: The Rise and Demise of the Postwar Social Structure of Accumulation," *The Imperiled Economy, Book 1, Union of Radical Political Economy* (New York, 1987); *The Review of Radical Political Economy* (Spring, 1986). Whereas, for the Greek economy are: Th. Lianos, "Τὸ Ποσοστὸ τῆς Ὑπεραξίας στὴν Ἑλληνικὴ Βιομηχανία," *Οἰκονομία καὶ Κοινωνία* (1981); Κέντρο Μαρξιστικῶν Ἐρευνῶν, *Ἡ Καπιταλιστικὴ Ἐκμετάλλευση στὴν Ἑλλάδα: Βαθμὸς καὶ Μορφές* (Athens, 1984).

accepted. Nevertheless, when this distinction is applied to the actual data, opinions may differ as to what must be included in the production or non-production activities.⁵

We distinguish three types of activities, all of which involve labor:

(i) Production defined as the activity whereby inputs, i.e., commodities, are utilized and, through the labor process, result in the creation of new commodities;

(ii) Circulation defined as the activity whereby inputs are used in order to transfer or circulate the already produced commodities in the production activity. Thus, the circulation process refers to the selling, i.e., the realization of commodities already produced and to the transferring of titles of their ownership. This activity becomes increasingly important, since capitalism is a system of production based on the operation of the market mechanism, i.e., competition. Hence, the lack of any planning for the realization of commodities requires, over the long run, the expansion of circulation activities. This tendency is well documented in the empirical research undertaken for the U.S. economy.⁶

The circulation activity, although absolutely indispensable for capitalism, is not considered as productive because it does not create any new commodities, but instead it requires commodities for its own support. Hence, its diachronic growth operates as a drain of the surplus product available for investment in the production activity. Consequently, the expansion of circulation is detrimental to capital accumulation, insofar as it grows at a faster rate than the production activity;

(iii) Social reproduction or maintenance defined as the activity that utilizes inputs in order to protect the existing social order. This set of activities is identified mainly with the state, although it is not confined to it. The social reproduction activity over time has a tendency to expand and its effects are similar to those of the sphere of circulation.

Marx defines as productive labor the wage labor which is exchanged against capital and enters into the production of commodities for capitalist enterprise. This type of labor is capable for the creation of value and surplus-value. For the purposes of our study, surplus-value is defined as the difference between the value added by living labor (L) in the production of commodities during a specified period of time and the wages, i.e., variable capital (V) paid to the workers. The labor engaged in the circulation and social reproduction activities is considered unproductive, because it does not contribute to the production of value or surplus-value, and it is only being used to appropriate a portion of the

⁵In this section, many of the ideas on productive and unproductive labor come from Shaikh's articles, *ibid.* 1978, 1980, and 1987.

⁶See footnote 3.

already produced surplus-value. Thus, Marx's discussion of productive-unproductive labor is inextricably tangled with the notions of variable capital and surplus-value. The value of commodities produced can be represented by the following often cited formula,

$C + V + S = P$ where:

P = the total value produced, i.e., gross output;

C = the value of the constant capital, i.e., raw materials used up, as well as depreciation of plant and equipment utilized in current production;

V = the variable capital or wages paid to the workers in the production activity;

S = the surplus-value; and

S/V = the rate of surplus-value or the rate of exploitation.

According to Marx, the owners of capital lay out money to purchase means of production and to hire laborers aiming at the maximum possible extraction of surplus-value in the form of profit. However, capitalists are not concerned only with the total profits, but, primarily, with the rate of profit (ρ) defined — at a very high level of abstraction — as the surplus-value divided by the total capital invested ($K = C + V$).⁷

$$\rho = \frac{S}{K} = \frac{S}{C + V} = \frac{S/V}{C/V + 1} \quad (1)$$

Relation (1) estimates the profitability of the whole economy, i.e., gauges the potential profitability. The potential rate of profit varies directly with the rate of surplus-value (S/V) and inversely with the value composition of capital (C/V). However, the rate of profit as capitalists perceive it and, therefore, the rate of profit crucial for their investment decisions includes in the numerator only profits net of taxes and interest paid (Π), i.e., the actual or observed rate of profit,

$$r = \frac{(S - U)}{K} = \frac{\Pi}{K} \quad (2)$$

since the outlays for the operation of the unproductive activities (U), i.e., depreciation, materials, wages, indirect taxes, etc. are treated as

⁷This formula is correct when the fixed capital lasts for one year. If the fixed capital lasts for more than a year, then the turnover time of capital stock must be accounted for.

costs.⁸

It was Marx's argument that the potential rate of profit has a tendency to fall, because over the long run the value composition of capital grows faster than the rate of surplus-value. A falling potential rate of profit, however, induces a falling observed rate of profit whose decline is accelerated when the unproductive activities of an economy proceed more rapidly over time than the surplus-value produced. A falling observed rate of profit, in turn, leads to low or even negative net investment. This, coupled with the tendency of the less efficient firms to be eliminated from the market, generates high unemployment rate. Thus, the net consequence of a falling rate of profit is an economic crisis, i.e., withholding of investment and widespread unemployment.

High unemployment, however, weakens workers' position and, therefore, the owners of capital can depress the real wage and intensify the labor process. In so doing, however, productivity, i.e., the output per worker in the production process increases and, therefore, more surplus-value is produced which, coupled with a lower real wage, increases the rate of surplus-value, i.e., the numerator of the rate of profit. In addition, the elimination of the individual firms from the market forces them to sell their existing plant and equipment at lower prices. Thus, the value composition of capital, i.e., the denominator of the rate of profit for the remaining firms decreases. Therefore, the rate of profit rises stimulating new investment outlays. Consequently, unemployment decreases and the whole economy is ready to start another round of prosperity and crisis.

It is important to note at this juncture that this immanent tendency of capitalism for crisis becomes visible through periodic business cycles which, under conditions of a falling profitability, become progressively more severe. In addition, the problem of restoring the necessary conditions for renewed profitable accumulation tend to become more difficult in each successive crisis. To what extent this argument is true for the Greek economy is a question that we pursue in the next sections.

-B-

In our research we utilize input-output tables which, in the case of

⁸At a more concrete level of analysis, interest paid must be subtracted as well. However, due to the lack of data, the present endeavor estimates profits before corporate income taxes and before interest paid.

the Greek economy, convey a much more detailed breakdown of the different components of value added than the national income accounts and, therefore, the estimation of the fundamental marxian variables is rendered feasible.⁹ From the discussion on productive and unproductive activities, we classify the 35 × 35 industries input-output tables as follows:

Table 1
Classification of Industries*

Productive	Unproductive
Agriculture (1)	Circulation
Manufacturing (2-26)	Trade (31)
Constructions (27)	Banking (32)
Utilities (28)	Housing (34)
Transportation (29)	Social Maintenance
Communications (30)	Public Services (35)
Other Services (33)	

*The numbers in parentheses refer to industries as they appear in the input-output tables.

The detailed presentation of the utilized input-output tables, given their dimensions (35 × 35), was impossible. In order to facilitate our exposition, we provide instead a summary of a representative table (Table 2). The rows of an input-output table indicate the deliveries of each industry to itself and to the others, i.e., intermediate demand. The sum of the intermediate demands gives the total intermediate demand for the output of each industry, whereas the allocation of total output in consumption, investment, and exports minus imports gives the final demand. Reading the input-output table columnwise, we get the cost structure, i.e., the outlays of each industry for inputs, wages, indirect taxes (IT), and other value added (OVA) which refers mainly to profits, rents, and interests, as well as depreciation.

⁹Th. Skoutzos and Y. Matheos, "Input-output tables of the Greek economy, 1958-77," *Center of Planning and Economic Research* (Athens, 1980).

Table 2
Representative Input-Output Table

Output Input	Intermediate Demand (ID)											Total (ID)	Final Demand
	Industries												
	1	2-26	27	28	29	30	31	32	33	34	35	(36)	(37)-(44)
1													
i 2-26													
n 27													
d 28													
u 29													
s 30													
t 31													
r 32													
i 33													
e 34													
s 35													
36 Total Inputs													
37 Wages													
38 OVA													
39 IT													

From our discussion we excluded the agricultural production, i.e., industry 1 in Table 1 and row 1 and column 1 in Table 2, since the problem of rent is very difficult to be dealt with the existing data. Moreover, the agricultural production in Greece is mainly characterized by fragmented ownership where self-employment is extensive and, therefore, the rate of surplus-value as an indicator of exploitation would not be operational.

In our estimation of the fundamental marxian categories, we treat the input-output industry, "public services," as a social maintenance activity, since, in the Greek input-output tables, the category, "public services," refers exclusively to the wages paid to both armed forces and civil servants. The former is unequivocally considered as a social maintenance activity. The latter, however, is difficult to be classified, because it consists of wages paid to workers engaged in public administration

and to workers employed in the production services of health and education.

According to our discussion of productive-unproductive labor, public administration is conceived as unproductive and falls into the social maintenance distinction, whereas, strictly speaking, the labor engaged in the productive services of health and education should be treated similarly. The justification of this treatment is that this type of labor is not employed by capital in order to make a profit, but rather it is a transfer from the state to the society at large. By way of contrast, labor employed in privately provided health and education is treated separately and it is included in the "other services" industry.

It may be remarked in passing that the wages of workers engaged in the publicly operated health and education services ranged between 19% and 24% in the total wage bill of the "public services" industry. In employing separate estimates for the rate of surplus-value treating the wages of employees in the publicly operated health and education services as variable capital, we found that its trend was not affected, whereas its level was slightly reduced.

Our research is carried out in current, instead of constant, prices, although input-output tables are provided in both kinds of prices. The justification of this treatment is that any variation in the price level is eliminated, since the numerators and denominators of the rate of surplus-value and the rate of profit are equally affected. Thus, our estimates should be better than those with constant prices, since the mistakes involved in the construction of price indexes could give rise to a bias in the two ratios. Bearing these considerations in mind, we decided to use the current prices as better deflators than the already deflated prices.

From the preceding discussion on the productive and unproductive activities, surplus-value, constant and variable capital and from the classification of industries into productive and unproductive, we estimate the surplus-value and variable capital of the Greek economy as follows:

a. Surplus-value:

1. The profits of all — productive and unproductive — industries of the economy. In terms of Table 2 from the entry "other value added," i.e., row 38 and column 36, we subtract depreciation of the productive industries as well as the "other value added" related to agriculture, i.e., row 38 and column 1.¹⁰ The remaining is corporate

¹⁰The utilized data include imputed rent and interest which are fictitious and must be removed from calculations. For the Greek economy, there is not any available data on these imputations. However, we consider their extent to be limited and, therefore, it is very unlikely to change our results in any significant way.

profits before taxes plus the interest, rent of productive and unproductive industries, and depreciation of unproductive industries;¹¹

2. The wages paid to workers employed in the unproductive industries of trade and banking, since the value added of the real estate does not include wages. The unproductive wages, therefore, are estimated from row 37 and the total of columns 31 and 32;

3. The wages paid as remuneration of supervisory work, i.e., managers, accountants, guards, etc. in the productive industries, because this type of labor is not involved in any production and, therefore, it is paid out of surplus-value. The supervisory salaries are not provided in the input-output tables and, to the best of our knowledge, in any other source. We overcame this problem by stipulating a three percent of variable capital to be devoted for supervisory work. We deliberately assumed a low percentage because it is to our disadvantage to prove the marxian thesis of the increasing tendency of the rate of surplus-value, since the numerator of the ratio (S/V) becomes slower and the denominator higher;

4. The depreciation and materials used up in the unproductive industries of the economy are regarded as portions of surplus-value produced by the productive industries and utilized by the unproductive ones to circulate the commodities or to maintain the existing social order. The materials of unproductive industries are estimated in Table 2 from row 36 and columns 31, 32, and 34, subtracting the materials delivered to them by agriculture, i.e., row 1 and columns 31, 32, and 34;

5. The category "change in stocks" — in Table 2, row 36 and column 40 — refers to the unsold commodities held in businesses as inventories when fictitious, i.e., accounting profits due to changes in prices are removed. Since the stocks of unsold commodities are surplus-value produced but not realized yet, they must be included in the surplus-value. In the utilized input-output tables, the change in stocks is already included in the entry "other value added" and, therefore, its separate computation is rendered superfluous;¹²

6. The indirect taxes are included in the surplus-value, since they are a portion of it appropriated by the state. Indirect taxes are estimated from row 39 and column 36, subtracting the indirect taxes attributed to agriculture, i.e., row 39 and column 1.

b. Variable capital:

The Marxian category of variable capital is confined to the wages

¹¹Data on total and sectoral depreciation are provided in current and constant prices of 1970 in Skoutzos and Matheos, "Net Fixed Capital Stock."

¹²Anwar Shaikh helped us to clarify this treatment and Yiorgos Matheos, in a discussion that we had with him, reconfirmed it.

paid in the productive industries of an economy. In terms of the input-output tables of the Greek economy, we estimate the variable capital from row 37 and the sum of columns 2 to 30 and 33, subtracting the three percent which is our conservative estimate of the supervisory work.

c. Capital advanced:

As we noted, the potential rate of profit is computed as the ratio of surplus-value over the total capital advanced. The latter is composed of two parts: firstly, fixed capital advanced, which is equal to the net fixed capital stock;¹³ secondly, circulating capital advanced, i.e., materials and wages advanced for which there are no available data. Therefore, we based our estimations only on the net fixed capital stock provided that the other component is very small to have any significant effect on our estimations.¹⁴

-C-

From Figure 1, we observe that the rate of surplus-value over the period of twenty years displayed an increasing tendency with an annual average rate of growth equal to 1.48% and with an overall increase equal to 32.46%. According to Marx, the increase in the rate of surplus-value reflects:

Firstly, the prolongation of the working day. In the Greek economy, although the legal work week has slightly decreased, it has been by far more compensated by the substantial lengthening of the working day caused by the increase in the number of shifts. The latter became possible through the introduction of more sophisticated technology.

Secondly, the intensification of the work effort through various ways, i.e., piece-work, bonuses, tough management, and, more importantly, through more advanced technology.¹⁵

Thirdly, the depression of wage rate at very low levels. It is well known that, for historical reasons, the wage rate in Greece was two to three times lower than the wage rate in other advanced countries. This difference in wages accounts largely for the fact that the rate of surplus-value in Greece was double than the average rate of surplus-

¹³We obtained our data on net fixed capital stock in current prices from Skoutzos and Matheos, "Net Fixed Capital Stock," subtracting agriculture's net fixed capital stock.

¹⁴Mage in *The Law of the Falling Tendency of the Rate of Profit*, unpublished Ph.D. Thesis (Columbia University, 1963), p. 37, and Shaikh in *Toward a Critique of Keynesian Economics* (New School for Social Research, 1980), mimeo, pp. 51 and 65, utilize a similar approach.

¹⁵Although the above reasons contribute to the explanation of the increasing tendency in the rate of surplus-value, their influence, however, is limited. In the case of the Greek economy, this question could be the object of a separate research.

value of the other advanced countries.¹⁶

Finally, the rise in productivity which, according to Marx, is the most important variable for the increasing tendency in the rate of surplus-value and it occurs, principally, through technological change. By defining productivity (q) as the ratio of value added over the number of workers employed in the production sphere (N), i.e.,

$$q = \frac{L}{V} = \frac{S + V}{V} \quad (3)$$

we found that, for the period of our investigation, productivity has increased. The reason is that the overall increase of the value added (V + S) — in constant prices of 1970 — was 246.34% with an annual average rate of growth equal to 6.54%, whereas the overall increase in the number of productive workers (N) was only 70% with an annual average growth equal to 2.76%.¹⁷ Therefore, contrary to the popular belief of declining productivity, our results document the opposite, i.e., productivity was increasing on an average annual growth rate of 3.77% and accounted mostly for the increasing tendency of the rate of surplus-value.

In considering the rate of profit, our overall results are favorable to Marx's argument. Over the period of twenty years, the rate of profit followed the anticipated from the marxian theory falling pattern (Figures 2 and 3). The unadjusted potential rate of profit (p) exhibited an annual average decline of 0.44% and during the twenty years its decline was of 8%. Much more dramatic changes occurred with regard to the adjusted for capacity utilization potential rate of profit whose annual average reduction was 1.11% and its overall reduction was 19%.¹⁸

¹⁶A. Amsden, in "An International Comparison of the Rate of Surplus-value in Manufacturing Industry," *Cambridge Journal of Economics*, 5 (1981) 232, estimated the rate of surplus-value of the Greek manufacture in the range of 420%, whereas, for the advanced OECD countries, the average was approximately 200%. In making comparisons of the rate of surplus-value between countries, differences in productivity must be accounted for. In the case of the Greek economy, however, it seems that the wage differences are dominant.

¹⁷We derived estimates on the number of productive workers from P. Pavlopoulos, *Εισοδηματικά μερίδια*, Ινστιτούτο Οικονομικών και Βιομηχανικών Ερευνών (Athens, 1986), pp. 263-64.

¹⁸Marx's discussion on the rate of profit assumes normal economic conditions, meaning that his falling rate of profit argument is built around the idea that demand is always equal to supply, i.e., the economy operates under normal utilization of capacity. In the absence of direct measurements of the degree of capacity utilization, we approximated it by the ratio of real actual gross domestic product (GDPa) to normal gross domestic product (GDPn). The latter is conceived as the trend of the GDPa. Thus, the degree of capacity utilization (u) is:

Stronger results follow for the actual rate of profit (r). From Figure 3, we observe that the unadjusted actual rate of profit decreased with an annual average rate equal to 0.79%, whereas its overall decline was equal to 14%. Similarly, the actual rate of profit adjusted to account for variations in the capacity utilization declined with an annual rate of 1.46%, whereas its overall reduction in the two decades was 24.28%. It may be remarked in passing that the actual rate of profit declined at a rate higher than the potential as a result of the growth in the unproductive activities.

According to Marx, the reason for this falling tendency is that capitalists are compelled by competition to continually introduce labor saving technological changes which increase both the surplus-value and the productivity of labor. However, this is possible principally through the introduction of more sophisticated technology or what amounts to the same thing, mechanization. From Figure 4 we argue that the falling pattern of the rate of profit in the Greek economy is due to the increasing mechanization as it is reflected in the rising ratio of capital to production workers wages, i.e., value composition of capital. The unadjusted value composition of capital displayed an annual average increase of 1.91%, whereas its overall increase was 43.96%. Much more drastic changes occurred in the adjusted for capacity utilization value composition of capital. Its annual average increase was 2.6%, whereas its overall increase was 63.22%.

From Figures 2 and 3 we can identify that, over these twenty years, seven business cycles (recessions) occurred, i.e., 1958, 1960, 1962, 1966-67, 1970, 1974, and 1977. The recessions that occurred in 1962 and 1974 seem to be the most serious, whereas the prolonged recession in 1966-67 is due to the dictatorship in 1967 which gave rise to political uncertainties and, thereby, prevented new investment projects. However, at the same time, the necessary economic environment for massive investment was provided and, therefore, during the first years of the dictatorship, the inflow of foreign capital — primarily in the productive industries of the economy — gave rise to high profits which were reaped at the expense of massive investment in fixed capital.

$$u = \frac{\text{GDPa}}{\text{GDPn}}$$

In the case of the Greek economy, this trend was computed by a second degree equation between the GDPa and the time, i.e.,

$$\text{GDPn} = a + b(t) + c(t)^2 + u,$$

where a, b, and c are parameters to be estimated, t represents the time, and u is the stochastic term. The idea behind this conceptualization, as well as the actual measurements of u for the period 1950-1987, are described in our unpublished paper, "On the theory of capacity utilization: the case of Greece, 1950-1987," available by the authors.

This process is summarized in Figure 5. We observe that the investment in fixed capital or, what amounts to the same thing, the introduction of more advanced technology was reflected in the rise of value composition of capital — adjusted for utilization of capacity — which grew at a rate much higher than the rate of surplus value, driving down the adjusted actual rate of profit. It is interesting to note that the tendencies in these three variables become more pronounced in the last years of our investigation. As a result of a falling rate of profit, the recession of 1974 was the most severe one, whereas the ensuing recovery of 1975 was very short and, soon, a new recession followed. The profiles of the three variables are similar to those displayed for the more advanced capitalist countries, especially the U.S. There is a general agreement that the declining profitability in most OECD countries started in the middle sixties. The present paper is an attempt to establish that the Greek economy was not an exception.

An important aspect — described in our introduction — of the Greek economy is that it yielded high growth rates during the period 1958-73. Our analysis provides an explanation for this phenomenon which is related to the division of an economy into productive and unproductive activities. By defining the growth rate as:

$$g = \frac{I}{K} \quad (4)$$

where g is the growth rate, I is the amount of net investment in production activities, and K is the capital stock, it follows that when the amount of net investment is equal to the surplus-value produced, the economy grows at its maximum potential rate, i.e., $p = g$, since the whole surplus-value is plowed back productively. In contrast, when the amount of net investment is less than the surplus value produced, the growth rate of the economy slows down, since a portion of the surplus value is unproductively consumed, i.e., there is an expansion of circulation and state activities.

From Figure 6 we observe that, during the period 1958-73, the overall decrease in the ratio of variable capital (V) to unproductive wages (W_u) was equal to 9.97% with an annual average rate of decline equal to the moderate 0.7%. Therefore, during this period, the Greek economy was characterized by high growth rates, since the burden of the unproductive industries weighed lightly with regard to the productive industries which were thriving. However, during the period 1973-77, there was a structural shift in the ratio of variable capital to unproductive wages. The overall growth of this ratio abruptly decreased to negative 31.03% and its annual average rate of growth to minus 7.21%.

Hence, the decrease in this ratio indicates the diminution of the investible product (I) and the slow down of the growth rate of the economy. Currently, we do not have more recent data on the shares of the two kinds of wages, but the persistence in the low rates of growth indicates that the above described tendency became a chronic feature of the Greek economy.

This diachronic movement in the ratio of productive to unproductive wages is quite explicable and originates from the type of investment undertaken from both domestic and foreign investors. The great bulk of investment expenditures occurred during the period of the dictatorship, i.e., 1967-74 was oriented towards the productive industries, whereas the unproductive activities were growing in the more advanced countries.¹⁹ Over the long run, however, as the set of productive activities of the Greek economy expanded, it generated the necessity for the increase in both state and circulation activities. This process is expected, since the intensification of domestic and international competition requires the expansion of certain unproductive activities, e.g., advertising, marketing, state, etc.²⁰

The present research is an attempt to estimate the rate of surplus-value, the value composition of capital, and the rate of profit for the Greek economy, utilizing Marx's distinction of productive and unproductive labor.²¹ We consider our estimations of the Marxian variables to be of the right order of magnitude despite the lack of

¹⁹These findings are in accordance to Moseley's study, "The Rate of Surplus-value in the Postwar U.S. Economy," pp. 66-68, who found, for the same period of time, an exact opposite trend for the U.S. economy. Moseley's speculation for the growth in the share of unproductive wages in the U.S. is the operation of multinational corporations, which transfer their production activities to the less developed countries and retain their administrative activities in the U.S. A similar idea is presented in Amsden, "An International Comparison," p. 242.

²⁰Marx's position on this question is not clear. It seems that he believed that the progress of capitalism is associated with a rise in the unproductive activities. The following quotation supports the above proposition: "the extraordinary productiveness of modern industry . . . allows of the unproductive employment of a larger and larger part of the working class, and consequent reproduction, on a constantly extending scale, of the ancient domestic slaves, under the name of a servant class, including men servants, lackeys, etc.," K. Marx, *Capital* (New York, 1967), 1, p. 487.

²¹In the study by the Center of Marxian Research, pp. 247-49 (1984), study, depreciation, and materials of the circulation activities are not included in the estimation of the surplus-value, although, in the theoretical discussion, they are considered to be part of it. In addition, the data on capital stock seem to be biased. As a result, this study concludes that in every major recession, the rate of profit increases and the recession itself is explained by capitalists' desire to obtain an even higher rate of profit.

Lianos, "Τό Ποσοστό," estimates the conventional profit-wage ratio for the Greek manufacturing and identifies it with the rate of surplus-value.

When we completed our paper, Anwar Shaikh brought to our attention Papademetriou's unpublished dissertation (New School for Social Research, 1987) which was written independently and completed at the same time with our work.

exact data on supervisory work, various imputations, interest paid, profit taxes, as well as circulating capital advanced. Hence, future research should concentrate on more refined data on these categories.

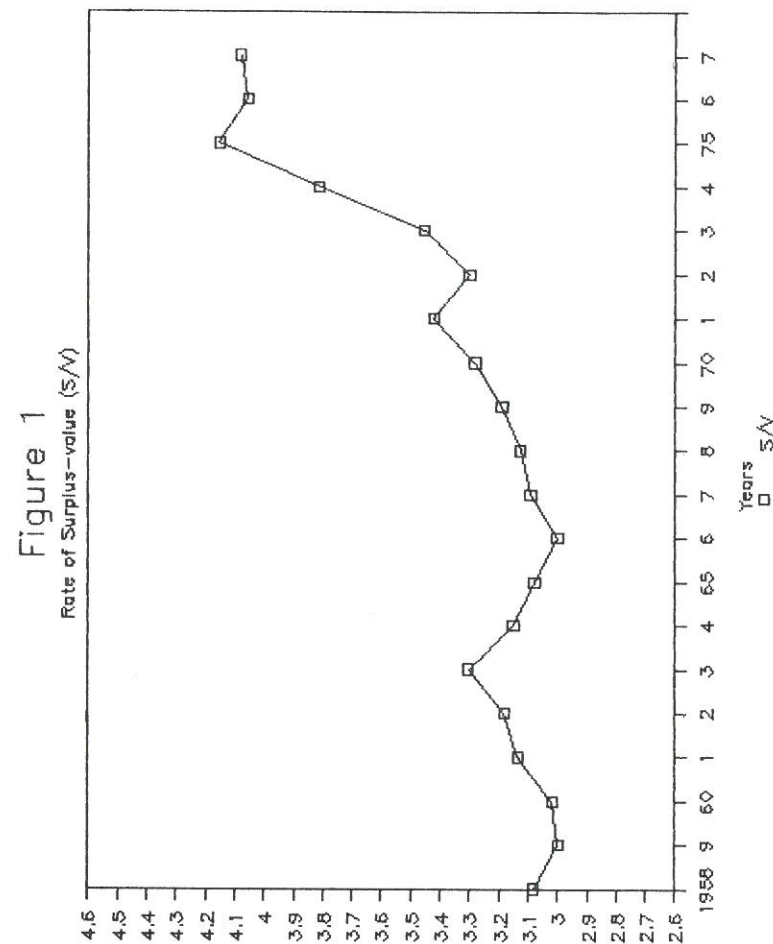


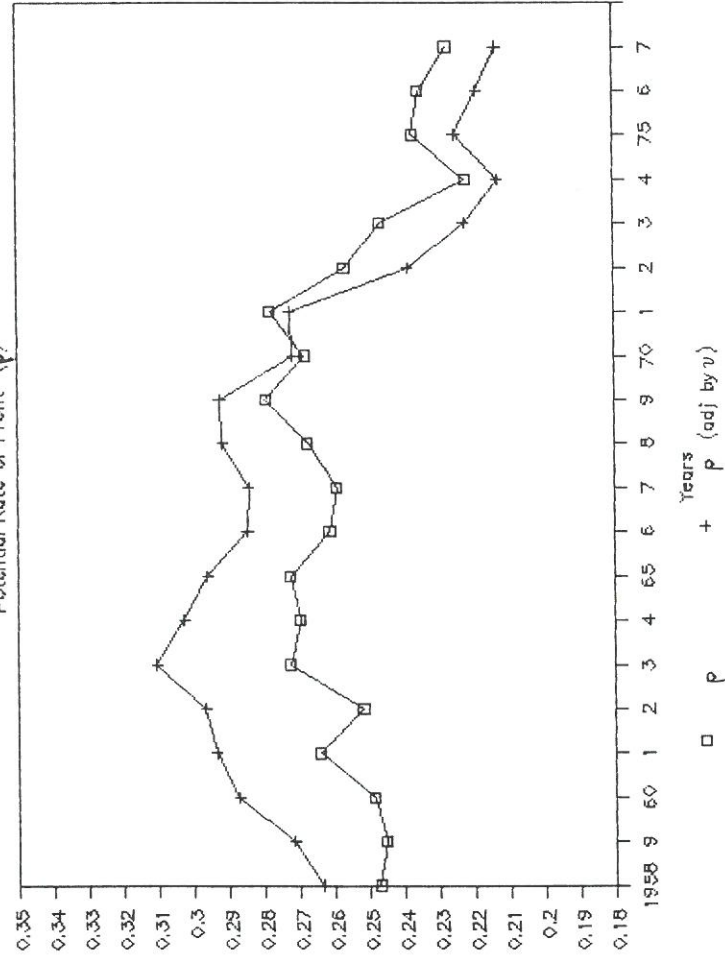
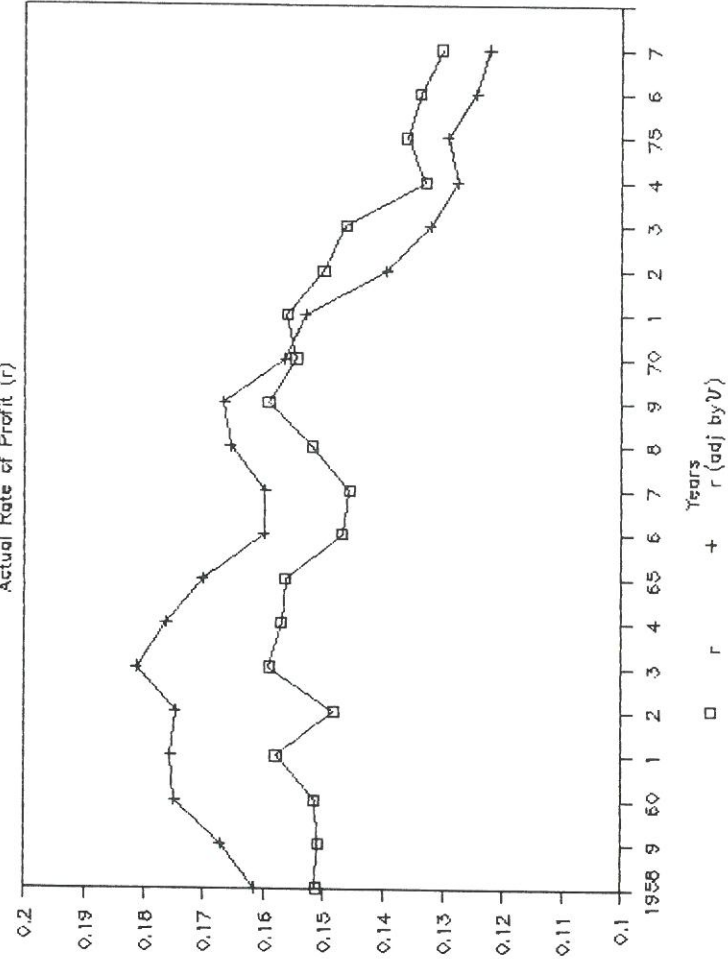
Figure 2
Potential Rate of Profit (p)Figure 3
Actual Rate of Profit (r)

Figure 4
Value Composition of Capital (c/N)

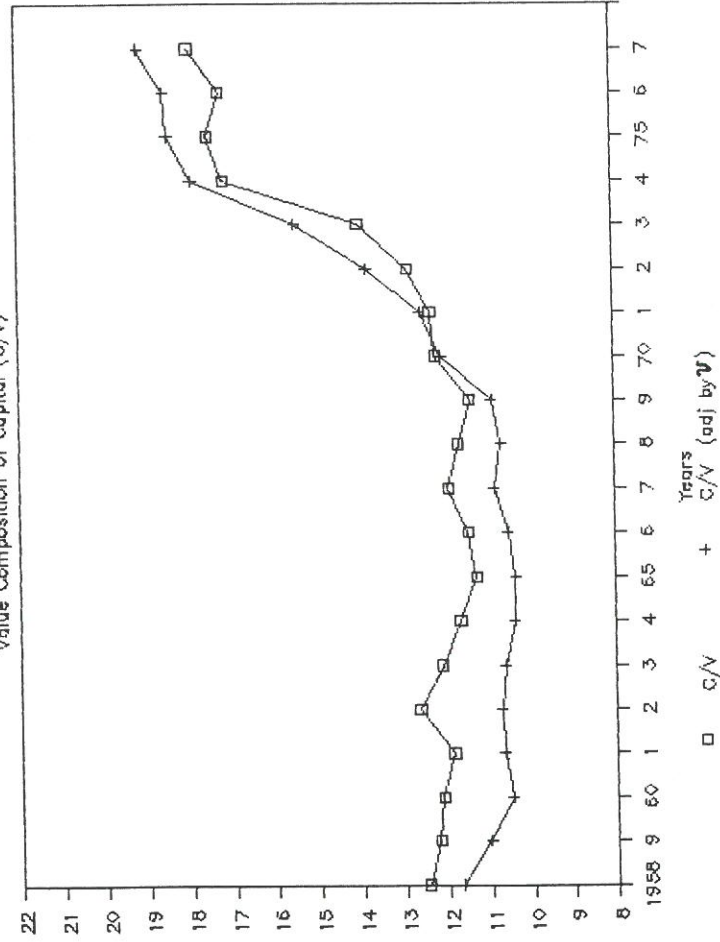
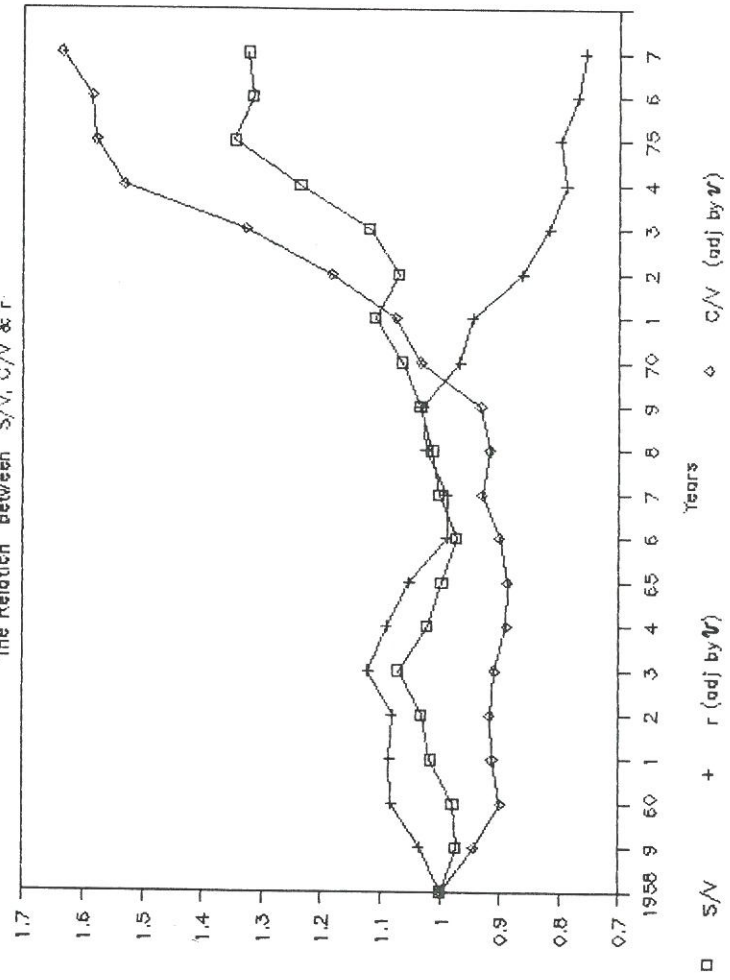
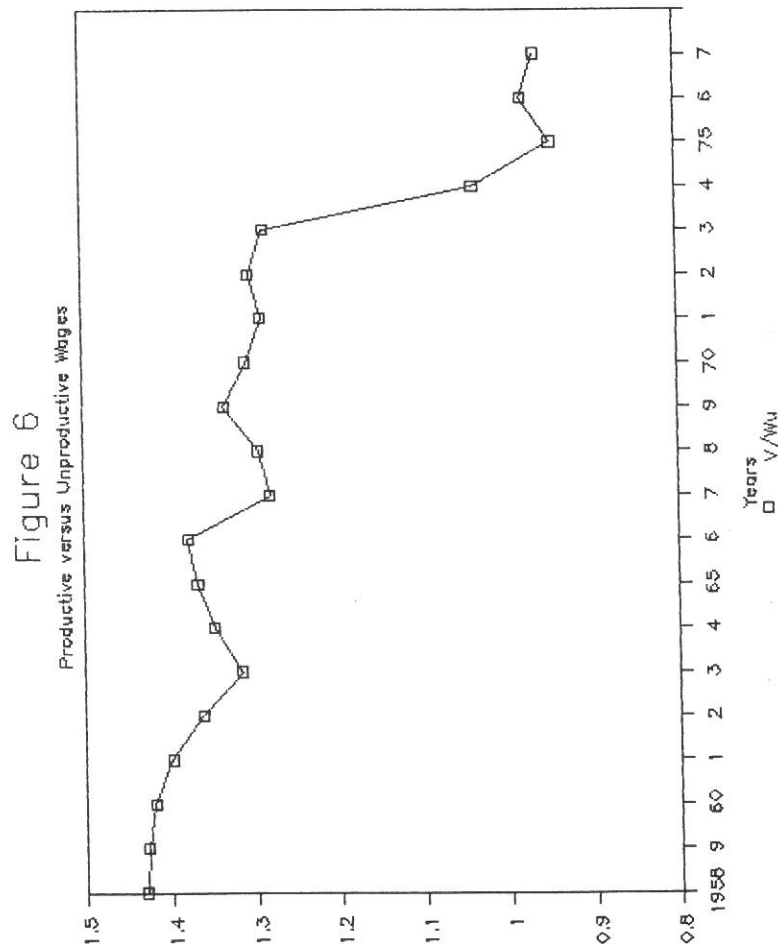


Figure 5
The Relation between s/v , c/N & r





Literature as Consensus of *Now* Interpreters*

JOHN CHIOLES

THESE ARE DIFFICULT TIMES FOR THE LITERARY ARTS, NOT ONLY because first rate work is hard to come by, but also because the critics and guardians of these arts are waging a costly war amongst themselves, thus ignoring the poet and rendering him irrelevant. To make matters even more confusing, it is suggested that many from the ranks of academic/theorist/critics are themselves poets manqué who, instead of writing an experimental novel, say, at a dull socio-cultural time such as this prefer to write a radical theory of literature that (along with Derrida who first began to mock the poets in this fashion) would compete with current novelists any day. What an aberrated reality we have shaped for ourselves in this discipline. And how little we understand that reality.

A brave book that stands to one side of that reality is Vassilis Lambropoulos's *Literature as National Institution: Studies in the Politics of Modern Greek Criticism*. Since it is a book that declares war, it *must* stand only to one side of reality where it mobilizes its forces for maximum danger to all other sides. Of course, the author will claim (and rightly for himself) that he beats the drum of war to wake us from our slumber rather than to force violence upon us. But can we, God fearing academics who know our aesthetics and our masterpieces and our great poets, afford to underestimate the enemy? That is the question, the question and the discourse that would be foisted upon Lambropoulos from the whole of the Modern Greek Humanities establishment. And the answer to that establishment is a clear "no," you cannot afford to ignore the danger coming from Lambropoulos; nor can you afford not to take him seriously.

In a dialogue with this uncanny book I intend to talk with him on his own terms, to carry some ideas as envoys to his own side — but at no time advocate for the Greek establishment, for that would be a contradiction in terms. To travel the distance to his side, to make the pilgrimage, so to speak, is respect enough and any objections, vehement

*An "idiosyncratic dialogue" with Vassilis Lambropoulos's recent book, *Literature as National Institution: Studies in the Politics of Modern Greek Criticism* (Princeton, 1988).