THE COMPARATIVE ECONOMIC PERFORMANCE OF A FIRM WITH AND WITHOUT LABOUR PARTICIPATION*

Stavros M. THEOPHANIDES**

1. INTRODUCTION

1.1. Background and Objectives

The search for the "ideal society" or the "ideal state" has been a recurrent objective for mankind since ancient times. For example, Plato in his Politeia (The Republic) has set the features and the basic principles of "his own ideal society", and it is important to note that the The Republic starts with the moral and political question: "What is justice?" The present effort to move and to establish a self-managed economy with labour participation, not only in the production process but in the long-run in all aspects of human activity, is a step towards the "ideal society". It is interesting to note that Plato's "class system" was based on the grouping of men according to their occupations and not their income-group.\(^1\)) Although difficult to attain, the "ideal state" is a very useful concept since it offers the prototype towards which we direct our efforts.

The transition of a capitalist economy to a self-managed one, though difficult because of tradition and the power of entrenched interests, will become more easly acceptable if we try to show the differences in the comparative economic performance of the two system at the micro or firm level.

The objectives of this paper are: (1) to emphasize the importance of labour as an independent decision-making input in the production

**) Professor of Applied Economics, Panteios Graduate School of Political Sciences. Athens.

^{*)} This paper was presented at the First International Conference on the Economics of Workers' Management in Dubrownik in Odtober 1978. I thank the Editorial Committee of the Conference and in panticular Parofessor Branko Horvat, for their helpful comments. I also thank Ms. X. Petrinioti and Ms. O. Kaminari, both Research Assistants in the Chair of Applied Economics in the Panteios School, for their comments and help during the preparation of the manuscript.

¹⁾ See Plato, The Republic, trans. with an instroduction by D. Lee, second ed., Penguin 1974, p. 41.

 $R = Q \cdot P$

process; (2) to examine the effects of labour attitudes on the economic performance of the firm in three cases, that of "labour inertia", labour strike and labour participation; and (3) to draw some conclusions concerning the comparative economic performance of a firm with and without labour participation.

Labour participation refers to the right of workers to participate in the principal decision-making processes which concern the activities of the firm employing them; it takes several forms, such as collective agreements, worker representation on supervisory boards, appointment of workers on the management board, and worker participation in the capital and/or profits of the firm. This phenomenon has acquired a growing importance after the worldwide trend for greater public participation in decision-making processes at all levels of government, management, and administration. In particular, labour participation in the management of firms has become an important subject in mixed-type economies since its application on a national scale in Yugoslavia.

The literature on labour participation has reached a record number of professional journal articles, official reports, and books which cover not only the theoretical but the empirical and practical aspects of labour participation.²) Moreover, the issue of labour participation is a matter of serious government concern. The European Economic Community is in the process of planning a common policy for labour participation in the European companies.

This paper shares the view that labour participation, supported in particular by education and workers' training programmes, improves the economic performance of a firm.

1.2. Labour as an Independent Decision-Making Input in the Production Process

According to basic theory, the firm may be defined as the decision-making unit that combines in a certain coordinating way the factors of production (land, labour and capital) to produce goods or services (output) which are sold in the market. Classical economic theory assumes that the firm is motivated by the desire to make profits in as large amounts as it can. Profits (Π) are defined as the difference between the value of the sales (outputs) of the firm and the value of the costs (inputs) to the firm. The value of sales is the revenue (R) which the firm receives from selling its output; the value of inputs is the cost (C) of producing output. In algebraic terms, this may be written as:

$$\Pi = R - C$$
 [1]

The revenue size of [1] depends upon the quantity of output produced (Q), times the selling price (P), that is,

The theory assumes that Q is determined mainly by the decisions of management and P is determined mainly by the market forces or even exogenously by the government.

The cost size of [1], on the other hand, consists of many inputs. For example, the inputs entering car production are the use of buildings, machinery, sheet steel, rubber, electricity, workers, supervisors, technicians. All inputs may be grouped into two classes of costs: labour costs (Cl) and other non-labour costs (Co). Therefore C may be written:

$$C = Cl + Co$$
 [3]

In the production process, labour influences both the quantity produced —(Q) in [2]— and the cost of inputs— C in [3]. Therefore, it is obvious that the performance of a firm as measured by [1] depends greatly on labour behaviour. Labour input influences both variables R and C in [1] and consequently II.

As is known, the assumption that the firms seek to maximize their profits has come under attack. For the purpose of this analysis, we shall measure the performance of a firm by two criteria:

- (a) the way the firm uses available factors of production,
- (b) the extent to which it increases the production of socially desirable goods or services by using the factors of production.

The importance content of these criteria will become clear in the analysis that follows.

In general, firms make decisions concerning the employment of the factors of production and the output of certain goods and services. Irrespective of the system in which they operate, the basic function of firms is to produce. Under normal conditions, and given that the demand of output is secured, the volume of production of a firm will depend mainly on the available factors of production and their efficient use. It is usualy claimed that in a mixed economy both the availability of factors of production and their efficient use depend on the decision-making of the managers of the firms. This assumption, however, ignores the fact that, among all the factors of production, labour (besides management) is the only input which has the inherent ability of independent decision--making in the production process, because of its characteristic of human cognizance. The ability of labour to take decisions in the production process makes it a crucial factor in the performance of the main function of a firm, namely, production. In this process, management plans production but the realization of these plans is carried out by labour. Thus, actual output depends upon the disposition of labour, since it is an indispensable decision-making factor in the production pro-

Many scholars tend to emphasize the paramount importance of capital goods incorporating high technology in the modern production process. However, it is true that even capital goods are produced by the

²⁾ During a five year perilod (1973—77) the issues of the Journal of Economic Literature published the following number of items in entry No. 830 (subject Trade Unions; Collective Bargaining; Labour-Management Relations): Book Reviews (11); New Books: An Annotated Listing 96; Subject Index of Artificles in Current Periodicals 678. The volume of the literature on this topic has shown an upward trend.

use of labour. In general, labour may be employed in four ways in the production of goods:

- (a) by making directly, that is, without the use of capital, consumption goods or services for final use,
- (b) by employing capital goods that are used to produce consumption good for final use,
- (c) by making capital goods that are used in the production of consumption goods, and
- (d) by making capital goods that are used to produce other capital goods.

The crucial importance of labour is due to the fact that, of all kinds of inputs taking part in the production of goods and services, labour is the only one which directly takes decisions in the production process. Thus, it can at any time take decisions to abstain from production. All the other factors of production such as land, raw materials, buildings, equipment, etc., being tied up in the premises of the firm, cannot act in this way.

This characteristic of labour in the production process is a very particular one. In general, all labour inputs (Cl) in [3] can take independent decisions in the production process against the management of the firm. Non-labour inputs (Co), on the other hand, may be controlled fully by management.

2. THE EFFECTS OF LABOUR ATTITUDES ON THE ECONOMIC PERFORMANCE OF THE FIRM

2.1. Method and Assumptions

In what follows, we shall try to analyze the effects of labour attitudes on the economic performance of the firm, mainly in the capitalist environment. We shall employ three different model-cases of labour attitudes:

- (a) the case of "labour inertia", where labour is indifferent to the decision-making of the firm (Model I—A),
- (b) the case of *labour strike*, where all labour decides to abstain from production (Model I—B), and
- (c) the case of active labour participation in the production process (Model II).

We shall use illustrative numerical examples, based on income statements of a hypothetical firm, to analyze the importance of labour attitudes on the firm's economic performance. The basic idea of the numerical models is to show how a firm's performance is influenced by changes in the quantity and disposition of labour in the production process. This paper can serve as a pedagogical exercise designed to highlight the effects of labour participation in capitalist countries.

We shall begin with some assumptions concerning labour, the nature of the firm, and firm performance.

The term labour as is used here is all human effort inputs in the production process excluding managerial input. Therefore, in labour input we do not include only the workers who work directly to produce the output but also their supervisors and the technicians of the firm.

The hypothetical firm of our example is assumed to function in the environment of a mixed economy, though the basic argument applies to any economy.

As explained earlier, the economic performance of the firm is not measured by the profitability of the firm according to the classical theory, but by (a) the way the firm uses its available resources (such as labour), and (b) the extent to which the firm increases the production of goods and services of the society. What we are really interested in is the level and rate of production of the firm, and not its sales or profits. (In classical economic theory, the level or the rate of production is kept equal to the rate of sales in order to avoid unprofitable or unwanted stockbuilding.) We must also emphasize that we are mainly concerned with the direct and static effects of labour panticipation.

We shall assume that the prices of the factors of production remain constant for the period under consideration. We also assume that an established firm, already functioning, does not change its technology to more labour-saving techniques during the short period of our analysis. The basic argument of the paper applies mainly in direct labour-intensive industries.

After the presentation of the three model-cases of labour attitudes, we shall use the framework of cost-benefit analysis in order to indicate the effects of labour participation on the economic performance of a firm.

2.2. The Economic Performance of a Firm: The Case of "Worker Inertia" (Model I—A)

In Model I—A we present the income statement of a hypothetical firm employing 500 workers, including supervisors and technicians.

At this initial phase (T_o), we assume that the firm is functioning under the situation of "labour inertia" (Model I—A), that is, the firm does not face any kind of labour disputes or strikes. Under these circumstances, the two performance criteria accepted at the beginning are as follows:

- (a) The firm produces an output of 20,000 units for society, and
- (b) It makes good use of the society's resources, employing the 4,000 man-hours offered by the workers, its managerial capacity, and its capital equipment.

The income statement shows that all the receipts of the firm come from the sales of its output and are assumed to be 20,000 monetary units (m. u.).

Model I-A

The Income Statement of a Hypothetical Firm Employing 500 Workers in a Given Period (T_a).

The Initial Phase: "Labour Inertia".

(in constant monet, units)

1.	Output (=Sales): 20,000 phys. units X 1 monet. units			20,000
2.	Cost of Output 2a. Raw materials 2b. Intermediate products 2c. Labour input: 4,000 man-hours 2ca. Wages of workers 2cb. Salaries of supervisors 2cc. Salaries of technicians	5,000 1,000 1,000	3,800 4,000 7,000	17,150
	 2d. Salaries of managers 2e. Social security contributions 2f. Depreciation of capital equipment 2g. Interest 2h. General fixed costs 2j. Indirect business taxes 		1,000 200 650 50 150 300	
3.	Profits Before Tax (1.—2.) 3a. Corporate profits tax 3b. Dividends paid	1,500 1,350		2,850
4.	Allocation of the Value of Output (2.+3.)			20,000

The cost items of the firm are as follows: First, they include raw materials and intermediate products purchased from other firms at 7,800 m.u. (2a + 2b). Second, they include labour input costs, that is, the services of 500 workers, supervisors and technicians, of 7,000 m.u. Third, they include the salaries of managers of 1,000 m.u. Fourth, they include social security contributions of 200 m.u., net interest payments by the firm of 50 m.u. and general fixed expenses of 150 m.u. Fifth, they include 650 m.u. as an allowance for the deprecation or wear, tear and obsolescence of the capital equipment; this allowance is the reduction in the value of the capital equipment over the period. The final item of cost is indirect business taxes such as excise, property and other taxes totalling 300 m.u.

The deduction of total costs of 17,150 m.u. from the revenue of 20,000 m.u. leaves a profit of 2,850 m.u. as a return. From this profit, the firm pays profit taxes of 1,500 m.u. and dividents of 1,350 m.u. to stockholders. The positive profits $(\pi > 0)$ show that the firm has a satisfactory performance by the standards of the neoclassical theory.

There is no doubt that the overall performance of this hypothetical firm is satisfactory since it produces 20,000 units of socially-desired goods and secures the employment of labour and other resources. However, the following question may be raised: Do the workers of the firm offer their best efforts to produce a higher level of output?

2.3. The Economic Performance of a Firm: The Case of a Labour Strike (Model I—B)

Now consider the case of a labour strike (Model I—B) in the next period (T + 1), which in the case of our hypothetical firm is a "transitory phase". The 500 workers in collaboration with their supervisors and technicians decide to strike because the management board of the firm does not satisfy the demands which the representatives of workers put forward. These demands are as follows:

- (a) 50 per cent profit-sharing,
- (b) the establishment of an education and training programme at a cost of 500 m. u. per period, and
- (c) the creation of a supervisory board containing workers' representatives which will be charged with the task of appointing, controlling and, if necessary, dismissing the members of the management board of the firm.

As a result of the strike, the labour input is zero. Therefore, the firm does not produce its output of 20,000 units and society suffers the loss of 4,000 man-hours. Moreover, the loss of output to the society is greater since the firm does not place orders for the production of raw materials. Of course, the managers get their salaries of 1,000 m.u., but without of 3,800 m.u. and intermediate products of 4,000 m.u. from other firms. offering any active managerial task. Social security contributions are reduced to 30mu. since no wages are paid to workers. The allowance for the depreciation of capital equipment has increased to 660 m.u. and is charged in the accounts, despite the fact that the firm is not operating. The same holds for the interest, general fixed expenses and indirect taxes. General fixed expenses have increased to 160 m.u. due to additional costs for security and other expenses. It should be noted that the firm suffers a marginal increase of 10 m.u. in deprecation allowances due to the lack of regular maintenance of capital equipment.

Model I-R

The Income Statement of a Hypothetical Firm Employing 500 Workers in the Next Period (T + 1)

The Transitory Phase: The Case of Labour Strike

(in constant monet, units)

4	0 4 3 4 2 2 2			,
1	. Output (=Sales): 0 phys. units X 1 monet. units			C
	 Cost of Output 2a. Raw materials 2b. Intermediate products 2c. Labour input: zero man-hours 2ca. Wages of workers 2cb. Salaries of supervisors 2cc. Salaries of technicians 	0 0 0	0 0	2,200
	2d. Salaries of managers 2e. Social security contributions 2f. Depreciation of capital equipment 2g. Interest 2h. General fixed costs 2j. Indirect business taxes		1,000 30 660 50 160 300	
3.	Profits Before Tax (1.—2.) 3a. Corporate profits tax 0 3b. Dividends paid 0		,	—2 ,2 00
4.	Allocation of the Value of Output $(2. + 3.)$			0

As a result of the strike, the firm suffers a loss of 2,200 m.u. instead of the profit of 2,850 m.u. which it gained in the previous period. Consequently, no profit taxes are paid to the government and no dividends are given to the stock-holders.

It is obvious that the social cost of this situation is not only the loss of the output of the firm and the output of other firms which offer intermediate products to the hypothetical firm, but also the loss of compulsory savings in the form of social security contributions and taxes paid to government.

2.4. The Economic Performance of a Firm: The Case of Labour Participation (Model II)

Suppose that in the next period (T+2) the management board of the firm accepts all the demands put forward by the representatives of the workers. The workers respond creatively and increase their productivity by 10 per cent, as a result of (a) the profit incentive, and (b) the training programme of the workers following the expenditure of 500

m.u. for this purpose.3) The government puts into force a new law according to which all expenses for the education and training of workers are deductible from corporate profit taxes.

The economic performance of the firm under the new situation of active labour participation (Model II) is the best one compared to the previous ones. Output increases by 10 per cent and the firm achieves a better use of available labour since the training programme and the profit incentive have substantially improved labour productivity. The firm increases its purchases of raw materials and intermediate goods from other firms in order to take advantage of the increased productivity of the workers and some economies of scale.

Under these circumstances, profits before tax have increased from zero (Model I-B) or 2.850 m.u. (Model I-A) to 4.400 m.u. (Model II). The government is better of since tax revenues increase, despite the fact that the training expenses of labour are deducted from taxes. Only the stockholders receive less dividends, mainly due to the fact that the

Evidence of this relationship has been found for both the macroeconomic and microeconomic level. For example E.F. Denison The Sources of Economic Growth in the United States and the Alternatives Before Us, New York: Committee for Economic Development, 1962, p. 266) found that 23 per cent or 0.67 percentage points in the 2.39 growth rate of the U.S.A. during the 1929—57 period is attributed to education improvement.

Evidence at the microeconomic level may be found in Appendix C (A Review of the Literature) in M. Zymelman "The Economic Evaluation of Vocational Training Programs (World Bank Staff Occasional Papers, Number Twenty-One, Baltimore: The Johns Hopkins University Press, 1976).

One may argue that labour productivity is increased also by the fact that since labour participation seecures the continuous flow of current productions.

tion, there is a favourable effect on productivity as the progress function curve or the "learning by doing" function indicates; as is known, the "learning by doing" hypothesis suggests that average labour productivity increases as a result of the continuous and cumulative process of output, because of the adaptation and the constantly rising job experience of workers. The "learning by doing curve" between productivity and the continuous flow of output is expressed mathematically as

log finQ.dt $\log Q/L = a + b$

where Q is output, L is labour imput and t is time.

The view that learning and education contribute to increasing productivity The view that learning and education contribute to increasing productivity differs substantially from other views which put emphasis on investment, technology and scale. L. Dudley ("Learning and Productivity Change in Metal Products", American Economic Review, September 1972, pp. 662—69) found that over a seven-year period (1959—66), real output per-worker increased by 6 per cent annually in the metal products sector of Columbia only as a result of learning due to the continuous work and adaption of workers.

(') The present analysis does not deal with the dynamic aspects of this case. The effects of profit-sharing on the ownership of capital, the growth of the firm, etc., in the capitalist environment are analyzed in Branko Horvat's "Paths of Transition to Workers' Management in Developed Capitalist Countries", Economic Analysis and Workers' Management, Vol. XI, 1977, pp. 216—236.

¹⁾ The training of workers may take the form of on-the-job training, training off-the-job and combinations of the two. There is, in general, a strong positive association between the improvement of the education and training level and the increase in labour productivity. See, for example, Figure 1 in M. Blaug, A Cost-Benefit Approach to Educational Planning in Developing Contries (International Development Association, Report No. EC-157, 1967, p. 11) which shows that the productivity of workers increases as they are given more education.

profits are shared with workers.4) However, the position of stockholders in Model II (labour participation) is better than in the case of Model I—B (labour strike) where they do not receive any dividends at all.

Model II

The Income Statement of a Hypothetical Firm Employing 500 Workers in the Subsequent Period (T + 2)

The Final Phase: Labour Participation

(in constant monet. units)

1. Output (=Sales): 22,000 phys. units X 1	monet. u	nit	22,000
2. Cost of Output 2a. Raw materials 2b. Intermediate products 2c. Labour input: 4,000 man-hours 2ca. Wages of workens 2cb. Salaries of supervisors 2cc. Salaries of technicians	5,000 1,000 1,000	4,000 4,250 7,000	17,600
2d. Salaries of managers 2e. Social security contributions 2f. Depreciation of capital equipment 2g. Interest 2h. General fixed costs 2j. Indirect business taxes		1,000 200 650 50 150 300	
 Profits Before Tax (1.—2.) Corporate profits tax Minus training expenses 		2,330 —500	4,400
Corporate profits tax paid 3b. Dividends paid 3c. Profits distributed to workers		1,830 1,285 1,285	
4. Allocation of the Value of Output (2. + 3.)			22,000

In summing up the effects of labour participation (Model II) as compared to the next best position (Model I-A), we observe the following:

- (a) It had a favourable growth effect, that is, (i) a primary one by increasing the output of the firm by 10 per cent, and (ii) a secondary one by increasing the output of other firms which supply raw materials and other products to the firm.
- (b) It had also an income redistribution effect, that is, (i) by transferring income from the stock-holders to workers, (ii) by increasing government revenues, which are used normally for the achievement of "public goals" (e. g., production of public goods), and (iii) by offering new employment opportunities to teachers of workers.

It is obvious that labour participation in the firm better satisfies the performance criteria stipulated previously (section 1.2.).

3. THE COMPARATIVE PERFORMANCE OF A FIRM WITH AND WITHOUT LABOUR PARTICIPATION: A COST-BENEFIT ANALYSIS

Under the conditions described in Models I-A and I-B (without labour participation) as compared to Model II (with labour participation), the firm or society in which there exist "labour inertia" or strikes suffers the following: (a) reduced primary output or total loss of primary output, (b) reduced purchases from other firms supplying raw materials or intermediate products (c) unused labour force due to the labour "inertia" or strike, (d) unused entrepreneurial capacity as the managers remain idle during the period of strike, (e) possible increases in depreciation allowance due to the lack of regular maintenance of capital equipment, (f) possible losses due to the production discontinuity (lost advantages of economies of scale), (g) reduced or lost compulsory savings due to reduced social contributions, (h) lost or reduced government revenues from taxes, (i) loss or reduction of dividends paid to the shareholders, (j) reduced overall economic activity due to the lessened purchasing power of workers, (k) increased social costs due to labour dissatisfaction or to possible labour agitation.

Table 1 summarizes the costs and benefits of active labour participation in the management of the hypothetical firm described in Model II.

The costs of labour participation include: the expenditure of 500 m. u. for worker training, the loss of output of workers during the training period (opportunity cost of training), and the loss of some output of workers involved in the management of the firm (opportunity cost of workers' management).

The main benefits of labour participation include: the increased primary output of labour force by 10 per cent or 2,000 physical units, the increased secondary output of other firms, the prevention of increased costs for depreciation allowances, the prevention of increased general fixed costs, gains from economies of scale, increased public savings, prevention of possible worker agitation, the positive functioning of the multiplier due to higher consumption spending as a result of higher incomes, improved self-esteem of workers, and improved social and political consciousness of workers.

Comparing the quantified benefits to the quantified costs in Table 1, we find that the former far outweigh the latter. Moreover, if we take into consideration the unquantifiable indirect effects and the distribution effects, we see that labour participation increases the social profitability of the firm. The data summarized in Table 1 permit us to draw strong conclusions in favour of labour participation.

Four points may be made here in general terms:

1. Labour participation should take multiple forms in order to be more effective in improving the economic performance of firms. Some think that participation in management alone is enough to increase productivity. Others think that profit-sharing by workers is the strongest incentive for higher performance. Still others think that workers influenced by a "capitalist mentality" may find that the feeling of owing some capital of the firm is the best incentive to increase labour productivity.

Table 1

Summary Table of Costs and Benefits of Labour Participation.⁵) The Case of a Hypothetical Firm (Model II)

(- Δ indicates an unmeasured quantity that enters negatively; $+\Delta$ indicates an unmeasured quantity that enters positively; A indicates an unmeasured change).

in monetary units

Costs and Benefits

1	Casta
1.	Costs

1a. Training costs of some workers	_	500
1b. Loss of some output of workers during the training		500
period		٨
1c. Loss of some output of workers involved in		4
management		٨

2.

		management	_	Δ
2.	Be	nefits		
	2a. 2b.	Increased primary output of labour force in toto Increased secondary output of other firms producing	+	2,000
		raw materials and intermediate products Prevention of increased costs for depreciation allowan-	+	Δ
		ces due to possible strikes Prevention of increased general fixed costs (e.g., pre-	+	Δ
		vention of additional costs for security since there will be no violence and demonstrations on the premises		
	2e.	of the firm) Prevention of rising production costs due to the avoi-	+	Δ
		dance of production discontinuity Gains from economies of scale due to 2a.	++	Δ
	2g.	Increased productivity of cooperating resources due to 2b.		Δ.
	2h.	Increased public savings due to the collection of more taxes	+	Δ
	2i.	Prevented social costs (e. g., due to avoidance of wor-	+	Δ
	2j.	ker demonstrations etc.) Integration gains due to the education of workers and	+	Δ
	-	the influence of educated workers on the next genera-	+	Δ

⁵⁾ Labour participaltion here is manifested: (a) by allocating funds for the education of workers, (b) by some form of labour involvement in the management, and (c) profit-sharing.

		Positive functioning of the multiplier due to higher consumption spending as a result of higher incomes Improved self-esteem and satisfaction of workers leading to lower absenteeism and lower turnover rate		Δ Δ	
3.	Ben	nefits-Costs (only the direct and quantified items)	+	1,500	
	Mea	asured benefit surplus over measured costs			

4. Distribution effects

	TIMEDIOI OF MICORIO TECHNICAL	Δ
4b.	Creation of new employment opportunities for the tea-	
	chers of workers who increase their incomes	Δ
4c.	Increased possibilities to achieve "public goals" due to	
	increased public savings (2h.)	Δ

2. Labour participation seems to be more effective if it is supported by education and training programmes for the workers. When we compare the quantified benefit of labour participation (increased output with the costs of training of workers, the former far outweighs the latter.

3. The indirect or external effects of labour participation seem to be numerous. Among the many indirect effects, the redistribution effects through profit-sharing are worth emphasizing. The redistribution is politically feasible if the government introduces a law for the realization of these reforms.

4. Labour directly or indirectly influences all aspects of the production process and therefore the social life of a country. It was shown that labour participation improves the economic performance of firms. Therefore, it is expected that, if applied on a national scale, it would have strong ameliorative effects on all aspects of a society.

Our analysis leads us to the conclusion that the superiority of benefits over costs for the firm will prove to be a motivation force for capitalist economies to adopt the reforms leading to a self-managed society. It seems that the transition to the self-managed society will not come all of a sudden but as an evolutionary stage after the multiplication and manifestation of the difficulties of the capitalist system of labour organization. Given the strength of entrenched interests, the transition to the self-managed society will be difficult but not impossible.

The main instrument in the transition of the self-managed society must be education and a redefinition of roles for all parties concerned: capitalists, workers, trade unions, parties and government officials.

SELECTED BIBLIOGRAPHY

Atherton W. N., Theory of Union Bargaining Goals, Princeton, 1973. Batt, W. L. and Weinberg E., "Labour-Management Cooperation Today", Harvard Business Review, Jan-Feb., 1978.

Bicarric, R., "Interaction of Macro and Microeconomic Decisions in Yugoslavita, 1954-1957" in Grossman G. (ed.), Value and Plan, University of California Press, 1960.

Bureau international du travail (Rappont) Facteurs influent sur la productivité dans les industries mécaniques. (Geneve: Commission des industries

wité dans les industries mecaniques. (Geneve: Commission des incussions mécaniques, quatrième session, 1952).

Chiplim, B., Coyne, J. and Sirc, L., Can Workers Manage? The Institute of Economic Affairs, Hobart Paper, No. 77, London 1977.

Dudley, L., Leathing and Productivity Change in Metal Products. American Economic Review, Septemper 1972, 62 (4), pp. 662—69.

EEC, Office for Official Publications of the European Communities, Worker Participation in the European Community. European Community Proposed Community. Participation in the European Community, European Documentation, No.

Garson, G. D., ed. Worker self management in industry: The West European

Experience. New York and London: Praeger 1977.

Horvat, B. and Rascovic V., "Workers' Self-Government in Yugoslavia", Journal of Political Economy, LXIVII-2, 1959.

International Labour Office, Participation by Employers' and Workers' Organizations in Economic and Social Planning; A General Introduction, Geneva, 1971.

Karlsson, L. E., "Experiences in Employee Participation in Sweden: 1969—74", Economic Analysis and Workers' Management, 1975.
Klein, L., New Forms of Work Organization, Cambridge, 1976.

Meidner R., Co-ordination and Solidarity. An Approach to Wage Policy (Ed. and translated by T. L. Johnston), Prisma, Stookholm, 1974.

OECD, La Participation des Travailleurs, Paris 1975.

Poole, M., Workers' Participation in Industry, Routledge and Kegan Paul, London, 1975.

Vanek, J., The General Theory of Labour-Managed Market Economies", Cornell University Press, Ithaka 1970.

Warren—Boulton F. R., "Veritical Control by Labour Unions", The American Economic Review, June 1977.

Zymelman, M., The Economic Evaluation of Vocational Training Programs. The J. Hopkins University Press for the World Bank, 1976.

POREĐENJE EKONOMSKE EFIKASNOSTI PREDUZEĆA U KOME POSTOJI RADNIČKA PARTICIPACIJA I PREDUZEĆA BEZ PARTICIPACIJE

Stavros THEOPHANIDES

Rezime

Od ovih faktora proizvodnje radna snaga je (pored »menadžmenta«) jedini input koji poseduje inherentnu sposobnost nezavisnog odlučivanja u proizvodnom procesu. U ovom članku diskutuju se konsekvence ove karakteristike radnog inputa na ekonomsku efikasnost pojedinačnih preduzeća,

Autor prezentuje tri različita modela stavova radnika: (a) slučaj »inercije radnika« gde je radna snaga »s onu stranu« odlučivanja u preduzeću, (b) slučaj radničkog štrajka, gde radnici donose odluku da apstiniraju od procesa proizvodnje, i (c) slučaj aktivne radničke participacije. U članku se koriste ilustrativni numerički primeri, zasnovani na dohodnim stavkama kapitalističkog preduzeća, pomoću kojih se analizira komparativna ekonomska efikasnost preduzeća u kome ne postoji radnička participacija i preduzeća u kome postoji radnička participacija u formi: (a) učešća u dobiti, (b) ustanovljavanja programa obuke i obrazovanja za radnike, i (c) stvaranja nadzornog odbora u kome se nalaze radnički predstavnici.

Analiza komparativne ekonomske efikasnosti »participativnih« i »neparticipativnih« preduzeća dovodi autora do zaključka da se superiornost koristi nad troškovima u preduzećima sa radničkom participacijom pokazuje kao motivaciona snaga za kapitalističke privrede da usvoje reforme koje vode samoupravnoj privredi.