IMPERFECT MERITOCRACY AND INEFFICIENCY

by
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Introduction

The economic system of perfect competition guarantees, more or less, the functioning of the system of perfect meritocracy particularly in the selection of the most efficient individual for a specific job. Meritocracy exists when a society is governed by the following three principles: "(1) A principle of job placement that awards jobs to individuals on the basis of merit; (2) A principle specifying the conditions of opportunity under which the job placement principle is applied; and (3) A principle specifying reward schedules (salary, benefits, etc.) for jobs" (Daniels, 1991, p. 154).

Leaving behind the neoclassical world of perfect competition, imperfect meritocracy could emerge through the individualistic behaviour of politicians and/or because of a false institutional structure. Apart from the various negative effects produced in the economy by bureaucracy, some others could emerge (serious in some countries) by the selection of managers and labourers in a public firm or organization through an imperfect system of meritocracy. The main argument of this paper is that, if a system of employee and manager selection which is not based entirely upon meritocracy exists in an economy (or in part of it), then labour effort will be at a low level. Or, to put it differently, in this paper we shall try to show that there is another source of inefficiency that is emerging particularly in small economies with large public sectors. This source of inefficiency is produced by the

failure to select managers and labourers on the base of their appropriate training, skills and knowledge.

In the first section of this paper, the causes of an emerging system of imperfect meritocracy are examined. Then, the consequences of such a system on the allocation of resources and labour effort will be analyzed. In the last section, the significant costs of such a system and its effects on economic growth and the competitiveness of the economy will be presented.

Politicians' Behaviour, Imperfect Meritocracy and Work Effort

Imperfect meritocracy could emerge in the public sector of an economy when there exists some institutional weakness and particularly when the government has the power (by its own right) to choose the top managers and senior officials in any public company, organization and department. The same effect may occur if the government has the power to dismiss all or some of the officers and managers installed by a previous government and does so on the grounds that it needs personnel loyal to its program.

If the ruling political party in government has in effect a monopoly control over the

state machine, it must be expected that this party will try to use it as a power base for its re-election. This could be accomplished through the selection and promotion of "our people" (i.e., the party's people) in the state machine through an imperfect meritocracy system. However, it cannot be concluded under the above suppositions that the prevailing system of labourer and manager selection in the public sector is solely based on non-meritocracy (through it may be a possible case), but that this kind of selection may co-exist with meritocracy. In other words, the following analysis is related also to cases where the number of managers and labourers in the public sector chosen under imperfect meritocracy is not very large. A few persons chosen through imperfect meritocracy in strategic places in the hierarchy of the public sector may be enough to cause a decrease in the efficiency of public firms and organizations.

Let us explain how such a system of imperfect meritocracy in the public sector could appear. In general, it could emerge because of the institutional weaknesses in the functions of the state-machine, the political parties and the individualistic behaviour of the politicians, even in a democratic state.

Politicians, according to public choice theory, behave as individuals who are supposed to choose their career by maximizing utility. Or as Downs (1957, p. 28) put it:

"From the self-interest axiom springs our view of what motivates the political actions of party members. We assume that they act solely in order to attain the income, prestige, and power which come from being in office. Thus politicians in our model never seek office as a means of carrying out particular policies; their only goal is to reap the rewards of holding office per se. They treat policies purely as means to the attainment of their private ends, which they can reach only by being elected".

Under the above assumption, let us suppose that the utility function of a hypothetical politician is as follows: $U = f(Y, Pr, T)$; where (Y) is total income equal to *(Ym)* money income plus *(Ys)* psychic income; *(Pr)* is the authority exercised upon others as a consequence of their political power; and (T) the time that the politician has been in office. The three factors of the function positively determine the rate of utility that is:

$$\partial U/\partial Y > 0; \qquad \partial U/\partial Pr > 0; \qquad \partial U/\partial T > 0$$

The possibility of the politician's re-election (i.e., factor T) is a function of his political friends and supporters. It is assumed that a number of voters vote for their favorite politician because of his abilities and his political beliefs. Another section of voters vote because their economic interests are better served by the specific politician or political party. In other words, some of the politician's supporters are those who directly and/or indirectly have been favoured by the politician. In some democracies, this kind of supporter may outnumber those who vote according to the capabilities and political beliefs of the candidate.

The number of votes received by a specific politician depends on the power which he has in the government, which in turn is translated into the number of services that he offers to his voters. These services may consist of various governmental subsidies, and/or favourable regulations, but primarily they are related to the number of employment positions *(Lm)* offered in the public sector to his friends and supporters [1]. A politician's supporters receive "good service" from him particularly when the candidate chosen for a position in the public sector is incompetent in comparison with

other candidates. Therefore, as the number of incompetent persons the politician employs in the public sector is increased, his possibility of re-election is also increased, defined as T = *f(Lm)*. Thus, if it is supposed

[1] On the causes and effects of public regulation of some industries, see STIGLER (1975). In the present paper the issue of regulatory policy is left aside. Also, in our analysis we ignore the consequences of group pressures on the government for their private benefit which in the economic literature has been labeled "a rent-seeking process" (BUCHANAN, TOLLISON, TULLOCK, eds., 1980). See also BECKER (1985) for an analysis of political behaviour under the pressure of interest groups.

that "power" is nothing more than the dominant political party in a current government and its first target is its own re-election, then it will be obvious that this "power" will try to guarantee loyal "customers" (i.e. voters) by offering them positions in the public sector. In other words, the possibility of non-meritocracy in the public sector may be attributed to weak institution-al and administrative rules established by the self-interest of the politicians.

Under such suppositions, the utility function of the politician may become $U = f(Y, Pr, Lm)$, where the amount of *(Lm)* depends upon the power and position of the politician in the government, i.e., $Lm = f(Pr)$. Thus, the utility function of the politician can finally be defined as: $U = f(Y, Pr)$. The utility of the politician derived from his employment is positively related with his rate of total income and his position and power in the state-machine, that is,

$$\theta U/\theta Y > 0, \qquad \theta U/\theta Lm > 0$$

in this way may be explained the various endeavors of the politicians to increase their social and economic power and authority by expanding the role of the state [2].

In the above analysis is described a hypothetical politician who attempts to maximize his votes. The behaviour of bureaucrats and their influence on economic policies and measures of the state are left aside, as it is supposed here that a part of the bureaucratic structure is directed not by professional bureaucrats, but by servants of the political party that governs the state [3].

Let us examine now the consequences of imperfect meritocracy in the public sector of the economy on the rate of work effort of managers and labourers. The work effort is related with the degree of moral engagement, the level of training, and the material and non-material incentives of the labourer. In other words, the work effort is related with the will and capacity of individuals to accomplish a given task. The work effort has been defined more analytically by Leibenstein as consisting of four elements *(APQT):*

"A the choice of activities which compose the effort; P the pace at which each activity is carried out per unit of time; Q the quality of each activity; T the time

[2] This target of politicians explains the observation of STIGLER (1975, p. 61):
"... the innumerable regulatory actions are conclusive proof, not of effective regulation, but
of the desire to regulate".
[3] For bureaucracy and its economic consequences see the introductory analysis of

pattern and length of activity" (Leibenstein, 1976, p. 98; see also Frantz, 1988, p.75).

Public and private firms are buying labour time, while in their production process they use labour effort which is "to a considerable degree a discretionary variable" (Leibenstein, 1976, p. 157). Firms and other organizations can not pre-set a bundle of effort because of the high cost of its setting and the inefficiencies produced by an elimination of independent actions of men [4]. Thus, if the motives are inefficient and the labourers have been chosen through imperfect meritocracy, their work effort would have a correspondingly low level.

The low level of work effort could be explained in more detail on the following grounds. It is supposed that all men, according to the natural right of independence and autonomy, wish to be free, and not to be coerced and dependent on others[5]. Someone who has been chosen for a position by means of imperfect meritocracy criteria (mainly in the public sector where such criteria may function more easily) must show an obedience to the mechanism or the individual offering him that position. Let us denote this mechanism or individual the "power". Being dependent may create in the labourer an inferiority complex, a complex which may result in either an obedient or a hostile behaviour toward the "power". If the latter behaviour prevails, then the labourer will refuse to obey the directions of the "power". In the event that the first behavior emerges, the dependence and the obedience of the labourer to the "power" in question will be the result of imperfect meritocracy. Or to put it differently, the incompetent labourer who was appointed through imperfect meritocracy will be prisoner to the directions of the "power".

In the case where managers and other officials in the public sector have been chosen under imperfect meritocracy, then an inefficient allocation of public administrators will emerge. This will result in an inefficient allocation of subordinate officials and other personnel in the public sector. The reasons for such a hierarchical inefficient allocation of human resources are the following: (a) subordinates will not have any strong motive to increase their work effort because their promotion will take place through non objective criteria, that is, not in regard to their knowledge and skill (see Vroom, 1964, pp. 152-3); and (b) those officials and managers chosen under an

[4] For the costs and inefficiencies of the effects of pre- set level of labour effort, see LEIBENSTEIN (1976, pp.100-103)
[5] Upon these principles Houmanidis developed his theory of the cost of dependence, see HOUMANIDIS (1985, 1994), KARAYIANNIS (1990)

imperfect meritocracy system will be unable to increase the efficiency of the organization and the productivity of their subordinates because they lack the necessary skill and knowledge to do so.

The work effort of the labourer is determined not only by the level of material incentives (i.e., wage rate, work time), but also by hierarchical meritocracy. When the principal is more skillful and able than the subordinate the work effort of the latter is increased, because the subordinate will try to reach the level of performance of his principal in order to take his position. Also, the principal will give promotions under

meritocracy for the same reasons that he himself was promoted. In the case where a principal has been chosen for reasons other than skill, quality of performance etc. (namely under a system of imperfect meritocracy), then the criteria which he sets for promotions will be based on the same grounds as were used in his own case. In such a situation, the subordinate has no incentive to increase either his work effort or his level of performance.

Moreover, the transmission of motives and objectives from principals to subordinates in the hierarchical scale of state organizations will not guarantee the maximum efficiency. The reason is simple: the incompetence of persons holding higher level positions in the hierarchy will result in low level work effort and thus the work effort of their subordinates will also be less. In other words, the influential effect from the upper to lower scale in the hierarchy will result in a decrease of work effort. Therefore, when the selection of labourers in the public sector takes place under imperfect meritocracy, their productivity will be lower than it would be otherwise [6].

The consequences of such a system of imperfect meritocracy can easily be shown. Let the utility function of the officer and manager of the public firms and organizations be chosen under imperfect meritocracy: $U = f(w, pr, t, oh)$, where *(w)* is his material rewards; *(pr)* all the other non material rewards of his position (i.e., power, large office, etc.); *(()* the time of occupation of the position; and *(ob)* the obligation and obedience to the "power". We have that:

$$\theta U/\theta\omega > 0; \qquad \theta U/\theta pr > 0; \qquad \theta U/\theta t > 0; \qquad \theta U/\theta_{O}b < 0$$

In other words, when the material and other non-material rewards are increased, the utility of the officer and manager will be increased. Also, his utility directly depends on the length of time of his position.

[6] As LEIBENSTEIN (1976, p. 380) mentioned:
"Certainly improved worker selection could improve productivity at the plant level. To the extent that people are not working at what they are most proficient at, productivity should rise as a consequence of superior selection methods".

On the other hand, when obligations and obedience are decreased, his utility is increased. Thus, the individual selected by the "power" as an officer and manager in the public sector through non-meritocracy, will do the best he can to decrease his rate of obligation to the "power". Therefore, it would not be expected that the official or manager will choose his subordinates under meritocracy; rather the opposite will be the case for the following reasons: 1) he will choose those which the "power" would have chosen, and 2) by choosing subordinates under imperfect meritocracy he will become the "power" for them, and they, in their turn, will have to show him a degree of obedience and obligation.

It is not unreasonable to assume that the efficiency of the new members of a firm or an organization will emulate, after a time, that of the old members, particularly when the new members become familiar with the culture of the firm or organization (see also Blake & Mouton, 1987, pp. 66-7). Thus, in the case where some of the old members have been elected through imperfect meritocracy, they would have established an organizational culture with large inertia and a high cost of leisure. Namely, the labourers will ask for much higher wages in order to decrease their leisure or to increase their work effort. Thus, it is not necessary to suppose that imper-

fect meritocracy prevails throughout the public sector. Even if it has been used for the selection and/or promotion of only a few persons in strategic places in the hierarchy of an organization, it is sufficient to cause a diminution in the work effort of others.

In addition, the managers and labourers chosen under imperfect meritocracy will not increase their work effort because the cost of the increased effort will lower the utility derived, thus their inertia will be much larger than that of more qualified persons. On the other hand, their cost of moving to other jobs will be high as their competence is low and thus, their efforts to retain their job through obedience to the "power" that offers them employment will be high[7]. Therefore, if in the public sector a significant proportion of managers and labourers have established a habit of low levels of work effort and norms to retain the status quo, the breaking down of such a situation will need the introduction of strong incentives, such as promotion under a system of meritocracy.

Imperfect Meritocracy and X-Inefficiency

The inefficiency of the production process may be produced by the

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[7] The inertia of human behaviour, particularly that associated with work effort, is partly influenced by habits and the established work customs in an organization.
"contracts for labor are incomplete; not all factors of production are marketed; the production function is not completely specified or known; and interdependence and uncertain lead competing firms to cooperate tacitly with each other in some respects, and to imitate each other with respect to technique, to some degree".

"following causes: a) the inefficient mechanism of incentives, that is, the low influence of the causal relationship: motive-effort-reward, on the individual behaviour; and b) the substitution of the non-material incentives from mother mechanism, such as an obedience to the rules of "somebody" (physical or political entity)[8].

The postulate of the imperfect meritocracy system developed her< causes X-inefficiency which is not clearly an allocative inefficiency but rather closer to Leibenstein's theory of X-inefficiency produced by an organization functioning under a non perfect system of labourer selection[9].

Whether X-inefficiency is more or less important than the inefficiency produced by the non-optimum allocation of resources is a matter of empirical research and lies outside the scope of this paper [10]. Of course, in the case of public firms and organizations which are monopolies, there will be also welfare loss attributed to allocative inefficiency. That is, the consumers do not get the desired amount of public goods and services.

The X-inefficiency approach allows for non maximizing behaviour an< examines the cause and the consequences of such a postulate. One of the causes of X-inefficiency as will become clear is produced by the system of imperfect meritocracy assumed to exist in the public sector. Unlike the private sector, where the forces of perfect competition and the self-interest of entrepreneurs result in the selection of the most efficient labourer, in the public sector there is no such guarantee that the most efficient will be employed. One cause, among others, of the lack of competitiveness in the public sector may be attributed to the inefficient system of selection an promotion

of public servants which may be established under the specific suppositions of institutional and political weaknesses. In such a case, there is no reason to expect that those institutional and administrative rules will be the most efficient for the promotion of public welfare. In fact the opposite could well be the case, because, as Coe and Wilbert (1985, p. 15) have noted:

"A related requirement for the successful functioning of a democratic system is that

[8] This case has been adequately analyzed by LEIBENSTEIN (1976, 1978)
[9] LEIBENSTEIN (1976, p. 45) has attributed X- inefficiency to various causes such as:
"contracts for labor are incomplete; not all factors of production are marketed; the production function is not completely specified or known; and interdependence and uncertainty lead competing firms to cooperate tacitly with each other in some respects, and to imitate each other with respect to technique, to some degree".
[10] Total inefficiency could be measured by the difference between the actual output (Q) and the potential output (Q*) as: *(In) = (Q) - (Q*)* (see also FRANTZ, 1988, p. 146).

there exists a well-trained, respected bureaucracy which can insulate itself from short-term public whims".

If this condition is not satisfied, then the economic functioning of the public sector will be inefficient. Let us explain further by using some techniques and propositions of Leibenstein (1976, 1978) regarding the emergence of X-inefficiency in the form of a low work effort caused by imperfect meritocracy in the public sector. By relating the level of pressure and performance (see Frantz, 1988, p. 98), we can see from Diagram 1 that the maximum level of performance is attained under an optimum level of pressure *P **.

DIAGRAM 1
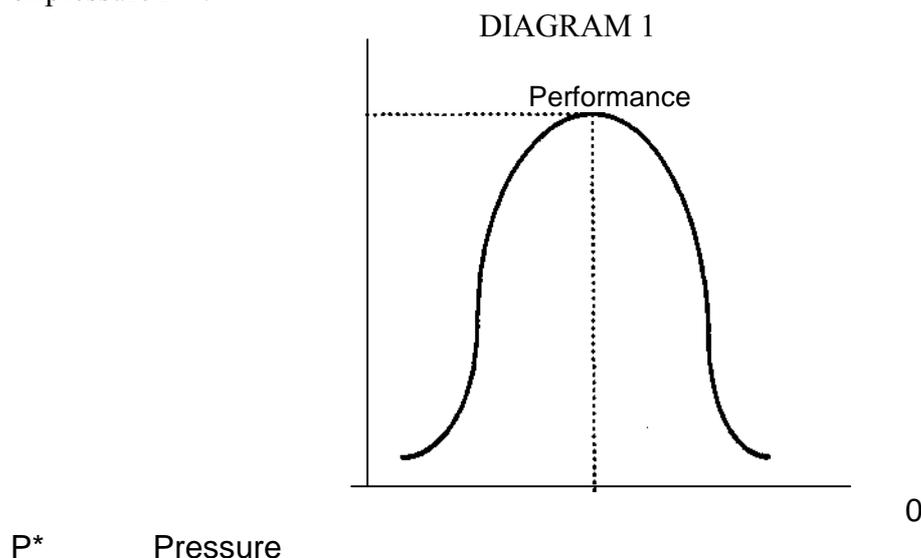
P*   Pressure

If the managers of a public firm or organization have not all been chosen under meritocracy, the pressure that they are going to exercise on their subordinates will be lower or higher than the optimum level. The rate of pressure may be lower than the

optimum if the principal officers know that their promotion is not related to their achievements and work performance and they are following the rule "live and let live". The rate of pressure will be higher than the optimum if the principal officers are trying to cover their weakness and incompetence because they have a strong psy-

chological need to demonstrate that they are "somebody". Moreover, the optimum rate of pressure is difficult to be achieved if the principals are showing discriminatory behavior toward their subordinates by following a friendly approval toward those of the same political party.

The managers of public firms and organizations which are mostly monopolies have neither the pressure to attain minimum cost levels nor do they face strong risks in regard to their careers if the monopoly shows a loss [11]. If the effort level in a monopolistic firm or organization is low, the marginal cost will be high and thus increased prices will be paid by the consumer. This is the usual practice in state monopolies which have the power to transmit higher costs to higher prices. Also, there is another source of mismanaging funds in a public firm and organization. Public servants are using the money of somebody else and thus they have little incentive to

DIAGRAM 2

Effort
(I)
(II)

(III)
(IV)
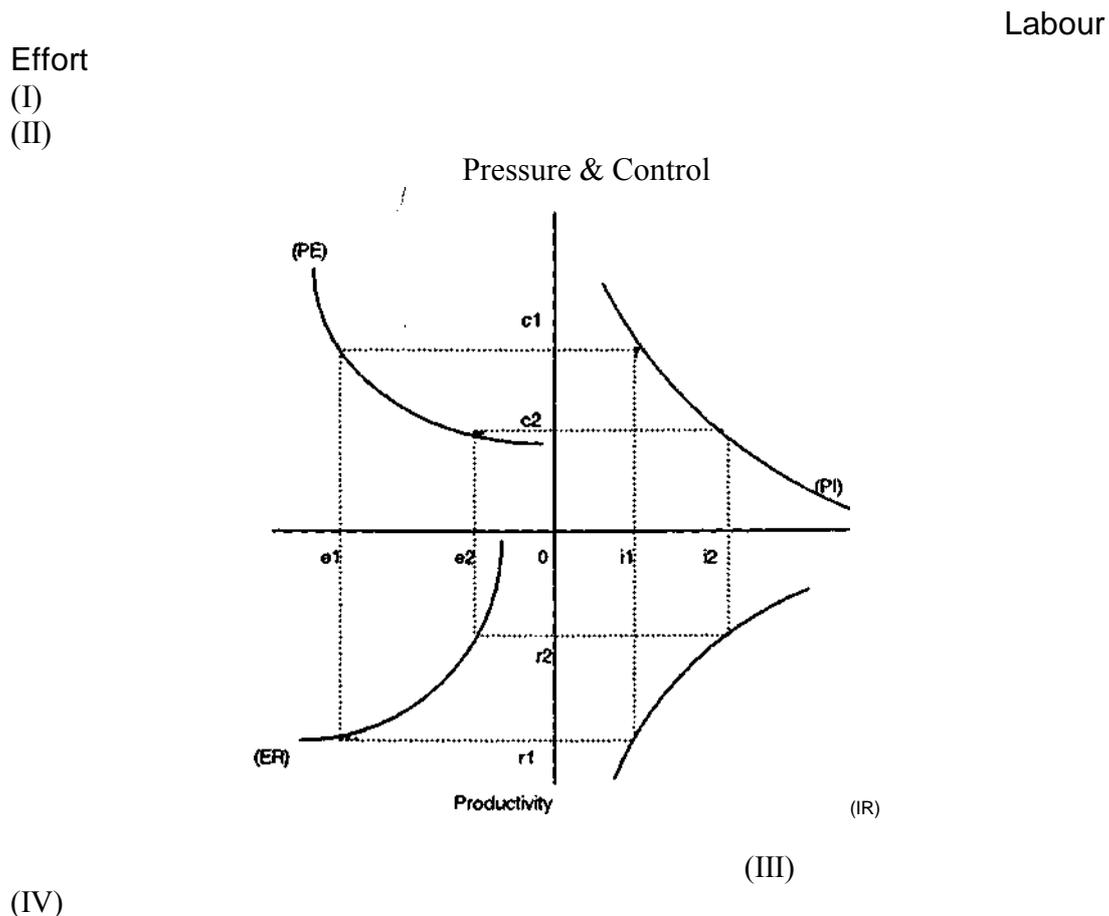
[11] FRANTZ (1988, p. 155) mentioned three causes for which the publicly owned firms are less efficient than the privately owned ones:
"First, the government's taxing powers can be used to subsidize the firm if necessary.

Second, the owners of these firms cannot allocate the profits of the firm as freely as they could if the firm were privately owned. That is, the motivation to be X-efficient in the hopes of receiving profits is usually lessened. Third, publicly owned firms are often monopolists".

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behave according to the rule of decreasing cost and restricting waste of capital.

It is easy to show that the level of imperfect meritocracy is negatively related with the rate of labourers' productivity. In Diagram 2, quadrant (I) depicts the relationship between imperfect meritocracy and pressure and control inside the organization exercised by the principals to subordinates [12]. In the case where some of the principals in strategic places in the hierarchy have been chosen without objective criteria, then their control over their subordinates would not be efficient. Also, they do not have any motive — as we have explained earlier — to increase the work effort of their subordinates. As we can see from Diagram 2, with a low level of imperfect meritocracy (il) we have a high level of efficient pressure and control (cl). When the level of imperfect meritocracy is increased, say to (i2), then the level of efficient pressure and control is diminished (c2). In other words, the level of incompetence and the level of efficient pressure and control are negatively related (curve *PI)*.

Quadrant (II) of the diagram depicts the relationship between the rate of efficient pressure and control with the level of work effort. When the rate of efficient pressure and control is at (cl), work effort is at level (el). When the rate of pressure and control is decreased to (c2) — because of higher imperfect meritocracy — then the level of work effort is decreased to (e2). In other words, the rate of efficient pressure and control is positively related with the produced level of work effort (curve *PE)*.

In quadrant (III), the level of work effort is related with the rate of productivity (or inversely with the rate of cost). When the level of work effort is high as at (el) — because of a more efficient level of pressure and control caused by a system of meritocracy — then the rate of productivity is high (rl) and labour cost is low. When work effort is diminished as in the case of (e2), then the rate of productivity is also diminished (r2). Or to put it differently, the level of work effort and the rate of productivity are positively related (curve *ER)*.

The low level of productivity is linked to a high level of imperfect meritocracy and this is depicted in quadrant (IV). Low level of productivity (r2) is drawn because of a high rate of imperfect meritocracy (i2). Productivity is increased to (rl) when the level of imperfect meritocracy decreases (il). Thus, the level of imperfect meritocracy is negatively related with the rate of productivity (curve *IR)*. This is in accordance with our previous

[12]A similar but not identical diagram is used in LEIBENSTEIN (1978, pp. 166-7).

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analysis of the relationship between productivity and a meritocracy system of labourer selection[13].

Therefore, when the selection of managers and other labourers in the firms and organizations of the public sector is made by politicians, the rate of work effort and innovations — as happened in the prior Soviet Union (see Karayiannis, 1993) — will usually be at very low levels.

Some Consequences of Imperfect Meritocracy

There are some significant direct and/or indirect negative effects produced through the existence of imperfect meritocracy. These could result in a decrease of productivity and competitiveness of the whole economy. These negative effects increase as the size of the public sector increases compared with the economy as a whole. More specifically when a meritocracy system does not prevail in the public sector, then resources will be wasted and a welfare loss will appear, particularly in those public firms and organizations which are monopolies. If the difference in the marginal costs of the competitive firm and public firm (monopoly) is attributed not to other causes but only to the system of imperfect meritocracy, a welfare loss for the community emerges because the most efficient employers have not been elected in the public sector. As Pellanda (1993, pp. 661-2) comments:

"Public services are produced and sold as a State monopoly where consumers' surpluses are transferred to an expansion of production and to a waste of resources to the only benefit of bureaucrats ... it is not profit which matters for public managers, but the size of the public firm from which they derive political power, higher salaries and possibility of distributing social favours".

Moreover, in the case of an imperfect meritocracy system, the waste of resources and X-inefficiency would be large. In other words, we shall not have a Pareto optimum as in the case of perfect competition.

In such an economy, since the public sector plays a strategic role in the economy, its inefficiencies will be transmitted in a variety of ways to the private sector. There are various explanations for this fact:

First, the labourers in the private sector, recognizing that their colleagues in

[13] As VROOM (1964, p. 261) concludes:

"... the level of performance of individual workers is related to the extent to which they believe that their chances of receiving a promotion are related to their level of performance on their job and to the valence of the promotion".

the public sector have a low level of labour effort and a peaceful labourers' life, may try to imitate them. They may attempt through their political and other unions to increase their wage in order to equalize their higher work effort with a higher rate of wage or they may decrease their work effort to the same level of the public sector employee. More than that, if the public servants have a strong labour union which is able to pressure the government for a higher wage level, then the workers unions in the private sector may try to achieve the same level of wages. Thus strikes or higher levels of wages will emerge, something which will result in a spiral effect of increasing wages and prices in the economy.

Second, the raw materials and other utilities of the public sector will have a higher price than they would have otherwise under the system of perfect meritocracy. Thus, ceteris paribus, the competitiveness of the private sector in foreign trade will be decreased.

Third, the institutional and other arrangements of the state will be imperfect as they are established through a defective selection of the most qualified servants [14]. Thus, the economic regulations that have been established may not only be imposed on behalf of some narrow economic interests as Stigler has shown (1975), but also they could have been established in an imperfect way.

In addition to the above mentioned negative effects produced by imperfect meritocracy in the public sector, we have another one with catastrophic consequences for the future: the inefficiency of the public educational system if it is based on an imperfect meritocracy system [15].

Conclusions

As has been shown the inertia and irresponsibility in the workforce will increase inefficiency in the economy. This is obvious particularly in the public sector where, for the sake of votes, it is possible for an imperfect

[14] As PELLANDA (1993, p. 664) mentions:
"The bureaucrats they employ to realize their policies often lack the necessary economic knowledge as would enable them to operate with competence. They are in fact not naturally selected by the market like the entrepreneurs of private firms but politically appointed or chosen through public competition rules by juridical not economic requirements".
" For a case-study of imperfect meritocracy at the University level, see ROIG-ALONSO (1994).

meritocracy system to prevail. As a result of such inefficiency, not only are resources wasted, but also the productivity of the public sector is decreased and the competitiveness of the private sector in the foreign market is diminished.

The public sector, if it has been organized under a system of imperfect meritocracy, is internally inefficient and thus produces fewer goods and services at a higher cost than it would otherwise dp under a perfect meritocracy system. Thus, a reorganization of the public sector is, needed through the establishment of objective criteria for the selection of personnel in the workforce. The main solution therefore is the establishment of institutional rules for decreasing the extent of imperfect meritocracy which prevails in the public sector. This could be achieved through the reduction of the power of politicians and the ruling party in government to influence directly and/or indirectly the criteria with which personnel in public firms and organizations are selected and promoted.

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