ON THE (IM)POSSIBILITY OF MARKET SOCIALISM

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The mid-1980s witnessed the collapse of the Soviet economy, followed by that of the Soviet empire, and of the economies of most other Council of Mutual Economic Assistance (CMEA) countries. France's last fling with socialism was rapidly aborted, and at roughly the same time, many institutions of the labor economy in Israel, a socialist island in a capitalist sea, also foundered. Many of those who helped the communist regimes in eastern Europe to crumble believed that some 'Third Way', some socialist market, should supplant state communism, not the blatant capitalist market. But this was not to happen, and the term socialism soon lost favor. It might therefore seem that this is the time neither to extol market socialism, nor, surely, to condemn it. I nevertheless believe that the dream of a better society under market socialism is not dead; this is because of the vision of the 'best of all possible worlds' which is induced by market socialism. It would be a world which does away with the extremes of income inequality and miserable poverty which so often accompany capitalism, as well as the extremes of social and political inequalities which seem to be part and parcel of the centralist socialism of the Stalinist model and its offshoots. It would be rid of the bureaucratization, as well as the ineffiencies and technological backwardness, also part of centralist socialism. It is this inherent attraction of the decentralist socialist dream that justifies its analysis even at this point in time.

My motivation for taking up this topic now stems from some of the lessons of the collapse of the *anciens regimes* in eastern Europe. This collapse allowed us to peer behind the scenes of the previous models, to have a far better grasp of their true functioning than in our previous models, based as they were on formal, published documents. Even nuclear physicists find it necessary to destroy the atom in order to learn about the forces which bind it together. In particular, we have recently learned about the real functioning of some of the reformed economies of the block, and learned that they differ less from the orginal Stalinist model than has been thought. There were quite a few reform experiments, the more serious of which were launched in the 1960s, starting with the Yugoslav labor-managed economy, NES in the German Democratic Republic (GDR), the Soviet Kossigyn reforms, the aborted Czech experiment, the Hungarian NEM, and the Bulgarian and Rumanian reforms which have been documented on paper if not on the shop-floor. One can fairly summarize their outcomes, or the outcomes of nearly all of them as very little different from their parent system, the Stalinist model. Now we usually show how the missing preconditions, or administrative opposition, led to the failure of these experiments. But it is also possible that the Soviet system happens to be extremely stable in the small because the reform systems, all of which took some steps toward the market, are inherently self-contradictory. They are contradictory in that the socialist firm, I posit, is inherently inflexible, and this inflexibility does not make a system composed of such firms able to compete effectively as our theory assumes.

The bureaucrats are drawn into the system; they are forced to intervene in its operation. It is this impossibility at which the title of this paper is hinting: a socialist market does not deliver the goods promised. It is (at least) as inefficient as the centralized model, and therefore creates political pressures for central intervention, and it is this central intervention which per force turns it into something very similar to a Soviet-type economy. In other words, socialist economies are being led by bureaucracies not because of the advent of Lenin and Stalin, but because this is their 'natural' way of coordination.

The term Socialism, as used above and throughout this paper, refers to an economic system in which all means of production and productive organizations are state-owned. Hence the discussion here is not germane to socially owned sectors in mixed economies,[1] possibly not even to the Yugoslav labor-managed economy.[2] The question is really whether such a large organization can be freed from its bureaucratic shackles, whether it can be coordinated by a freely functioning price mechanism.

The linchpin in this story is the capital market, coupled with what Kornai has termed the "soft budget constraint" (SBC). The commitment to social ownership of capital, in effect, is a commitment to an exclusion. It excludes the private sector from the ownership of productive resources and, in effect, removes productive firms from the jurisdiction of the capital market. It puts the firm under the control of a public hierarchy. The key question is whether this hierarchy can simulate the capital market. The first section below, which argues why this cannot be done, is followed by a section showing how this impossibility leads to the SBC and another one that shows why, for reasons which are related to the SBC, entry and investment decisions are all but impossible to decentralize. Once this is the case, the firm is freed from the need to fight for its continued existence through the unceasing search for profits. Since there is no force that makes it change policies that are inconsistent with profit maximization, it becomes less sensitive to market signals. Its supply response to price changes and to changes in demand is less elastic (fourth section). As a result, the hierarchy finds it necessary to help the markets clear: this is examined in light of the experience in Hungary in the 1970s (fifth section). The concluding remarks clarify the meaning of 'impossibility' in the present context, with reference to the Yugoslav labor-management system.

CAN HIERARCHY SIMULATE THE CAPITAL MARKET?

The introduction has already defined "socialism", for the purposes of this paper, as an exclusion: it is a regime in which productive assets cannot be transferred to private hands. This, in effect, excludes their trade in the private capital market. It is assumed that these productive assets are subdivided and organized in so-called enterprises. Even if these enterprises were legal firms which issued their own shares, their shares could not be traded on any stock exchange, since the ownership of these firms is not tradeable. Capital market services, therefore, cannot be enlisted to aid in the running of these firms.

The basic service the capital market supplies, as a concomitant to the market for corporate control in the capitalist economy, is the evaluation of each traded firm's net worth. This signals to its management and its owners how the market judges its future prospects. A decline in value relative to that of similar firms may be an indication that the market considers the firm's policies inferior to those of its competitors. Severe devaluation may convey a recommendation to change the top management team of the firm, possibly through a takeover by an alternative team. In extreme cases, when the market believes that the expected present value of the firm's cash flow is negative or significantly below the breakup value of the firm, the capital market may apply direct sanctions by bankrupting the firm. This indicates that the firm should be dissolved and its assets freed to alternative uses. The capital market, as well as providing for the birth of firms, also provides for their death and for mid-life changes in their course. It plays a Darwinian role of selection. As in Darwinian evolution, the role of chance is great, and the dependence on time paramount. What succeeds today may be what failed yesterday, because yesterday was not ripe for the idea or because it was not properly packaged. Without a capital market the present structure may atrophy. But the capital market does not fulfill these roles in a socialist economy. What happens to this role under socialism? If socialism does not allow an external capital market to operate, can it create an internal one, inside the state hierarchy?[3]

The first question is whether the role of the capital market can be fulfilled by independent boards, or whether it should, or would, devolve into the hands of the state hierarchy. It is the latter path that has not functioned well in the Soviet-type economies, and therefore it might seem that more individual supervision provided by separate boards would be preferable. Consider an arrangement in which a board of directors is appointed for each socialist firm to oversee its management and their operations, a board which is instructed to see to it that the firm maximizes profits.[4] This, however, only shifts the need for control one step higher, namely to overseeing the performance of these boards. Even if the remuneration of the boards' members is linked to the profits of their enterprises, the problem remains the same; these boards are not traded in the market, and no independent evaluation of their work is available. If they collude with the enterprises they are to oversee, if they are simply blind or do not understand that the firm's policy is not the best, there is no other group that may supplant them by a buyout. And to declare their firms bankrupt would mean to eliminate their own jobs, which is not likely to be in their interest. The hierarchy will therefore have to oversee these boards, rather than the enterprises directly.

The question of the feasibility of their independence arises even when they function properly. Any profits the enterprise makes would of course be paid into the treasury's accounts (except for that part used to pay the boards' members). But over the course of operation almost any firm's profit might become negative, in which case the national treasury would have to subsidize the firm. It would most likely use this opportunity to influence the policy of the enterprise, at the least to have its own appointees on the board. For permanently loss-making enterprises, the state may even demand full control over the board. Clearly, the public boards cannot remain independent from those in control of the public purse. Eventually the whole public sector is likely to come under the control of some public hierarchy even if it did not start this way, either because the control of independent boards did not fulfill expectations, or because the treasury, finance ministry, or some other master of the purse usurped their power. This public hierarchy is referred to below as the managing hierarchy or, in brief, as the planner.

Can the planner simulate the capital market? We might suppose that the superior in charge of an enterprise or its board of directors could be told to maximize enterprise profits, to change its management or chief executive officer (CEO) whenever he thought that the firm strayed from the profit-maximizing path and, under extreme conditions, to dissolve the firm when there was no hope for its profitable operation. The superior is likely to have one great advantage over the actors playing in the financial market: he should have much better inside information on the activities of his subordinates. This advantage, however, is outweighed by the disadvantages of opportunism, which are more deadly here because of the combination of moral hazard and the lack of competition.

Moral hazard provides the motive for the likelihood of the opportunistic behavior. The conflict of interests between the agents, the supervising hierarchy and the management of the enterprise, and the putative owners may lead to collusion by the former. Any position in a hierarchy carries with it given possibilities for consumption on the job. The larger is the hierarchy, the greater is the degree of information-impactedness and the higher is the spread of tasks of differing desirability. This is most obvious where the vertical structure of a hierarchy is concerned, because the principal incentive in a hierarchy is the ability to advance to superior positions. However, jobs on the same level may also bear quite different emoluments, possibly unintentionally. Any reorganization leads to a redistribution of positions in the hierarchy, and any member has a direct or indirect interest in its expected outcome. An indirect interest exists when it is not the member himself but somebody with whom, or against whom, he may be colluding, who may gain or lose. In any case, no bureaucrat can be presumed to be an uninterested party in any discussion of a reorganization. Furthermore, each and every bureaucrat has to consider his own and his colleagues' personal files: advancement in a hierarchy is based on past and expected services, on the way the bureaucrat has served the organization, (i.e., his superiors) in the past and is likely to serve in the future. Since his main task is to make decisions and get them accomplished, i.e., coordinate their implementation with insiders and outsiders, his contribution to the organization is judged, at least partly, by the quality of the projects he has approved and guided throughout his career. Any reorganization decision affects these files. If he was also responsible for starting the firm and now decides the firm should be shut down, his wisdom in launching it in the first place is questioned. If his predecessor is the initiator, then closing down the firm might be seen as an attempt to elevate his own reputation by denigrating that of his predecessor, and an internal fight may erupt in the hierarchy, a fight that is likely to center around the personalities rather than economics of the situation.

The chance for opportunistic behavior arises from the absence of competition. In a capital market, it is not the actions of one that decides the fate of firms, but the interplay of many groups, each with its own assessment and its own resources, which stand ready to take risks so as to make substantial gains (or avert losses) if its gamble should succeed. The weighted opinion of the market determines the fate of the firm, where the weights are based on assets. In the hierarchy the bureaucrat is alone, without competing opinion. It is true that he can consult others, but the assets of neither himself nor the others are at risk.

Consequently a superior in a hierarchy has both motive and opportunity to act opportunistically. As Tirole [1986] has argued, in large hierarchies the need to rein in moral hazard leads to rules, and the larger the organization, the weaker the supervision and the tighter the rules. It is this that turns large hierarchies into bureaucracies and very large hierarchies into heavy bureaucracies. For particularly weighty decisions, (a reorganization — especially the dissolution — of an enterprise is such a decision), the procedures become very complex and usually require committees with quasi-legal procedures. These procedures are costly in both time and organizational resources, and as in other judicial procedures, tend to favor the "accused", i.e., those who stand to lose from the decision. And then the staff of the firm have their say as well. For them any forced change of firm policy, even more so the dissolution of the firm, involves some hardship, learning of new skills, and investment in new specific human capital. The final decision of the hierarchy must therefore be perceived as fair, i.e., it cannot be made except under due process. But this takes time and a lot of administrative energies. Hence, radical changes of policies and of leading personnel, let alone bankruptcies, are likely to be very rare affairs at best. An if they do take place, the real cause need not be economic, but may well be political.[5] In any case, a large hierarchy is incapable of carrying out the tasks of the capital market: it cannot bankrupt a firm except under very rare circumstances, and it will have difficulty changing the management on economic grounds. This leads directly to the soft budget constraint, as is argued in the next section.

THE SOFT BUDGET CONSTRAINT

The first section has argued that the planner in a socialist economy, lacking an external capital market, will find it very difficult to dissolve firms or even to effect radical changes of management, hence of policy. If in fact ailing enterprises cannot be weeded out easily, they must be allowed to continue their existence and therefore be supported financially. This is the origin of the SBC. In a market economy composed of independently owned firms, special efforts are required to avoid insolvency when the cash flow is negative and liquid resources have been exhausted. An independent firm may be bankrupted by the very disinclination of credit suppliers to roll it over in times of financial need. When the same situation confronts a publicly owned firm, the decision to close down, to cease operations, requires a special effort. As long as this decision is not taken, the firm continues to exist and may continue operations without any change of course. In other words, the financial support of the firm continues to be provided by the parent institution in spite of the drain on its resources. The connection is not restricted to socialist economies: in the case of any larger organization, the closing of operations of any of its parts, a plant or a division, is subject to an internal decision of the firm. Likewise in the case of the socialist enterprise: a positive decision on bankruptcy is required by its superiors, and this, as was argued in the previous section, is not likely to be forthcoming. Instead, an automatic supply of funds may come from the banking organizations: these have to supply all needed liquidity, because they have no right to bankrupt a firm by starving it of cash. The more complex forms of support (subsidies or price changes, cheap credits, stock purchases, etc.)[6] require conscious organizational policy. In the Soviet case some of it is built-in: the rule that prices should equal average costs makes it possible for the pricing authorities to raise prices when costs exceed receipts.

The most important aspect of the SBC is the incentive effect. The enterprise itself, its management and its workers, are aware of the existence of the soft budget constraint, and it is this awareness that molds their behavior. An organization certain that it cannot fail just because it is not covering its costs behaves differently from one that has to concentrate first and foremost on keeping financially afloat. It is the incentive effect of the SBC, namely the reduction in elasticity, which is the subject of the next section but one.

A NOTE ON ENTRY AND THE REALLOCATION OF CAPITAL

Keren and Levhari [1992] have argued why entry presents a particularly difficult problem to the labor-managed economy, and these problems are common to other classes of socialist markets. The roots of the difficulty have been explored in the credit-rationing literature (e.g.. Stiglitz and Weiss [1981]). Suppose a group of unemployed workers decided to band together, obtain a bank loan, and start their own enterprise. Would they be deterred by a capital market scarcity signal, such as a high interest rate? As the credit-rationing model shows, the answer is usually negative, because of the asymmetry of property rights: the investing group has the rights to the fruits of the investment if the venture turns out to be successful, but the lender gets to own the liabilities if it turns out to be sour. In other words, if the project is unsuccessful and makes losses rather than profits, then all the investing group can lose is its collateral or its own part of the invested capital. But in a socialist market a group of workers is not allowed to have any collateral, so that the asymmetry is even stronger: they stand to lose nothing if they select the wrong type of project. But this means that they will, in general, select highly risky projects, wich provide very high returns if successful and high losses if unsuccessful. As Stiglitz and Weiss show, a higher interest rate will only induce the borrowers to select even riskier projects. As a result entry cannot be decentralized under market socialism, and the central authorities have to determine all new projects and found all new firms.

It may be thought that established firms do possess their own capital and are therefore able to suffer losses when an investment project turns out to be unsuccessful. Here the soft budget constraint comes in: it means that any losses that threaten the well-being of the firm's workers will be covered by the central authorities. Hence, their incentives are blunted: they stand to lose little when they are unlucky, but if they strike gold, the staff will surely lay their hands on an unspecified part of it, so as to be able to assist other hapless enterprises. As a result the reallocation of capital (the control of investments) is an instrument which the central authorities rarely find possible to give up (to decentralize).

THE SOFT BUDGET CONSTRAINT AND THE FIRM'S RESPONSE ELASTICITY

The effect of the SBC on a firm's incentives and behavior depends upon its perception of the likelihood that sanctions — which are ordinarily the task of the capital market — will be exercised against it. Under a soft budget constraint the assumption of a maximizing firm, be it of profits, growth, or any other objective, becomes untenable, and one has to adopt the Nelson-Winter [1982] view of the firm as an organization following certain historically determined rules of behavior, or policies. All firms may be acting according to a given 'corporate culture', but the financial market may act like a Darwinian disciplinarian to weed out all nonconformist firms. In a socialist system all survive, not only those fittest for the market. Consequently we must think of socialist firms as followers of given rules of thumb, designed to function well in the bureaucratic environment (cf., Murrell [1991]).

Suppose first that the firm's management believes that its standing in the bureaucracy depends only on its profitability, or that its existence may be endangered if it slips into the red. In this case it would follow a rule of thumb that aimed at maximizing profits, provided that enough consumption on the job can be taken by the staff, i.e., that the level of effort exerted by the personnel not be excessive. The only capital market service that the firm is missing is the advice on policy and management provided by its valuation relative to that of competing firms. In other words, we have no outside opinion on the efficacy of the policy rules used by the firm. If, however, the firm's staff adopts the more natural belief that the firm is subject to a SBC and that it cannot founder, incentives are very strongly affected. The remuneration of the personnel now depends on those who soften the budget, i.e., on the whims of the hierarchical superiors: the staff will have to provide some other desiderata of the superior, which is not likely to be profits. The various groups of employees now find it easier to collude to divide among themselves some consumption on the job. The firm stops aiming at profit as a maximand.

The colluding parties have unwritten agreements among themselves on conditions of work, and these agreements, because they are informal, are not easy to change withour internal strife. Thus, changes in hierarchical routines, in people's task assignments, or in the lines of authority are substantial operations, and since the maintenance of bureaucratic peace becomes a paramount target of the firm, they also become very costly to the management. The adaptation of the mix of outputs, even more so of the mix of inputs, are more complex and difficult to engineer in the bureaucratic environment than in that of the economics textbooks. When the mix of outputs is changed, labor has to be shifted around, old habits are broken and friendships are disrupted. New adaptations are imposed and uncertainty is infused. All of this is disutility for veteran workers. In particular, a decrease in labor inputs causes frictions and exertion on the part of management; an increase in labor inputs requires new investments in specific human capital, in training the new recruits. These efforts will not easily be taken if their expected effect, some gain in profits, is only of secondary importance. In other words, the firm's price elasticity of both demand and supply declines. The price change required to bring supply and demand into balance increases. The use of prices to clear the market leads to very wide price volatility.[7] The effect of the lower price elasticity on the hierarchy is discussed in the next section.

LOW RESPONSE ELASTICITY AND CENTRALIZED ALLOCATION

Replacement of the market by administrative allocation can be blamed directly on the lowered price elasticity of the enterprises. Higher price volatility is now required for market clearing, and this is unpopular for two reasons. The first one is political: price volatility or frequent price changes make the planning of purchases more complex and, therefore, is disliked by most consumers. Furthermore, maintaining a balanced budget for all enterprises is more laborious and the work of the bureaucracy in its support of the SBC becomes more complex. Firms' profits become highly variable, but not because of relative productivities or relative foresight and efficiency in the forecasting of future events, but due to the luck of the draw. When the profits of a firm turn negative, subsidies have to be provided if the firm is not to be bankrupted; when they become too positive, it may be thought necessary to siphon them. The relative superiority of market allocation over administrative allocation declines, and the temptation to use quantitative targets and limits rather than prices as market clearing tools becomes irresistible.

Hungarian experience can be seen in this light: it is now agreed that the first steps of the reform were taken in accordance with the spirit of the blueprints of NES. The submission of disaggregated plans to the enterprises was given up, a fair share of all prices was allowed to be fixed decentrally, and enterprises were permitted to use the ensuing profits to finance investments and to distribute to their workers. The snag was that the new order had a differential effect on various classes of firms. In particular, the big enterprises — and these were particularly big in Hungary which had undergone a period of drastic mergers in the early 1960s — suffered serious losses in the new economic regime. These need not always have been their fault: the prices that remained controlled and low were often those of the products of large enterprises. On the other hand, these enterprises were surely too big and inflexible to react nimbly to changing market conditions, and it is likely that they would not have done too well even if their prices were freed. The result was that many of the largest enterprises began making losses, and, as a consequence their workers' incomes were slipping in relation to those of other enterprises. Many of them were in heavy industry, a sphere that has always received favored treatment and whose workers were the highest paid, in line with the high social standing which they enjoyed. These losses and the change in the distribution of income which they brought along were therefore a serious political matter. It was then, in 1972, that the dilemnas of the budget constraint were encountered: the hierarchy felt compelled to buttress the big enterprises and to stop the 'excessive' freedom of prices.[8] Market imbalances now had to be controlled by direct, though informal, signals to the firms. These consisted of both explicit messages to specific firms, suggesting certain output levels for important deficit and export products, and the general rule of 'responsibility to supply', i.e., an implicit understanding that firms that were customary suppliers of certain commodities were responsible for providing their customers with their reasonable needs.[9] This was, in effect, renewed, through invisible, target fixing. Enterprises colluded with their superiors and obeyed these targets, which were not sanctioned by any written law.

There was a feedback from the reduced effectiveness of prices to the form of the SBC. To minimize the need for visible budgetary support, prices should remain stable and equal average costs. Any deviations from industry average, due either to special transactions (e.g., exports) or particular cost configurations received separate budgetary subsidies (usually positive, but sometimes also negative). The effect on cost-saving incentives is obvious.

The effect of this on current operations — on costs and quality — is obvious. At least as pernicious as the effect on the dynamics of the firm, which has been studied thoroughly by Berliner [1975]. Investments are channeled into projects that may help the fulfillment of production targets with little consideration for costs. There is little interest in new cost saving processes, and new products are introduced only if the superiors press the enterprise into producing them. Old physical capital is not discarded, because it can be maintained at low-pressure times, albeit at high cost, and may come of use at storming time. Human capital is ill-invested: engineers have no cost-consciousness, no consideration for quality, as long as the machines keep churning out the quantities required by their superios.

This is what has doomed past attempts at economic reform, the Hungarian NEM of 1968 — which came closest to success — not excepted. The latter has often been portrayed as an example of a half-hearted attempt at decentralizing the socialist economy, subverted by a bureaucracy anxious to keep the strings of power in its own hands. My claim is that this is a misreading of events: the blueprints of NEM never had a chance. The 'socialist market' is all but a contradiction in terms: a market for goods, undisciplined by a capital market, cannot function effectively. This is not to say that the Hungarian bureaucracy, any more than any other bureaucracy, was happy to let go of the reins of power: however, even if it were happy to do so, power would have been thrust back into its hands by the logic of events.

CONCLUSION: WHAT REMAINS OF MARKET SOCIALISM?

Market socialism sounds like too much of a free lunch: an economic system that does away with the worst ills of the two contending competitors: the Soviet-type socialist economy with its bureaucratization and the capitalist system with its gross income inequalities. What I have tried to show above is that, like most free lunches, there ain't no such thing as market socialism. The promises of market socialism are many, but those that interest us here can be put under two headings: decentralization and equality. The former requires a debureaucratized economy, where enterprises are free from central coercion, free to take their own initiatives. Equality is achieved through the exclusion of private ownership of productive assets, because these lead to inequality in both assets and incomes, hence in consumption and also in social power, the aspect that may have interested Marx most. It is the conflict between the two aims which leads to the impossibility: the exclusion of private property excludes the services of the capital market, and these cannot be supplied by the hierarchy acting as its proxy.

This leads to the impossibility of market socialism. The meaning of this impossibility does, however, require elucidation. Clearly, no logical impossibility is claimed. Rather, it is a political impossibility which arises because the socialist market does not deliver the benefits of decentralization, while at the same time it loses some of the beneficial discipline imposed by the centralized economy. As a result, political forces lead the government back into the allocation game.

Pre-BOAL system Yugoslavia (cf. Bergson [1982])[10] may be brought as a counter example. It is the accepted view that resource allocation in Yugoslavia under the labor management system was coordinated by markets, with little or no central intervention.[11] It is also accepted that the labor-managed firm was in fact run by institutions representing in fact, and not only in fiction, its own workers. I suspect that with time new information will come out that will show that the Yugoslav economy did not run very differently from the Hungarian NEM, that there too the administrative authorities intervened extensively in the flows of goods and services, and that the labor-managed firm was less independent that has been assumed.[12] The relative ease with which dicussions of privatization proceeded, without invoking extreme outcries on the side of the assumed real owners of the firms, their workers, may indicate that the real owner was always felt to be the state, that the soft budget constraint has there too meant that the residual revenue did not accrue to the workers.[13, 14] My suspicion thus is that the labor-managed firm was a fiction, because to be really independent from the political authorities it had to be subject to the market, its budget contraint had to be hard, and there had to be non-political ways of forcing it to cease operations. This socialism has not provided for. And the Yugoslav economy turned out in actual fact to be quite similar to other reformed Soviet-type economies. This is one of the causes[15] that may explain why there was little technological innovation in labor-managed Yugoslavia. However, until such new evidence comes in and supports my supposition, I shall have to concede the possibility of an inefficient socialist market.

A few words of conclusion. Observe that socialism enters only as an excluding element, one that excludes the capital market, but not as one that defines the behavior of the bureaucracy. Its policies do not matter in this analysis. Furthermore, the word planning has not been used: the alternative to the market is not planning, but bureaucratic allocation. And lastly, my way of looking at the system seems to me to be highly Marxian, in the importance I accord to the ownership of the means of production. It is, however, not mere private ownership that is needed for efficiency: a market is also necessary, a competetive market that forces the agents in control, the entrepreneur or the CEO, constantly to adjust the firm's policy to suit the present and expected states of the environment. This, the private owner, who may be willing to forgo some financial benefits, need not do if he prefers to continue past policies, while the publicly traded firm, in fear of a takeover or even bankruptcy, can escape constant adjustments only at great perils to its staff and particularly to its management.

NOTES

1. Hence not to Kenneth Koford's [1991] call for diversity of ownership patterns at our session in the conference. It is however relevent to David Colander's [1991] paper at the same session.
2. But see the comments in the concluding section.
3. It will be seen below that my answer to these questions is in effect an application of Tirole [1986] and Williamson [1984].
4. This comes very close to the suggestion advanced by Roemer [1990]. It is also reminiscent of some of the privatization ideas, particularly in Czechoslovakia, where one suggestion was to transfer state enterprises to the interim ownership of investment funds.
5. Tirole [1986] argues convincingly that a large hierarchy must have bureaucratic rule, because the temptations of opportunistic behavior become too great as the efficiency of supervision declines. Here such behavior could be directed at the aggrandizement of those agents that have the authority to decide on the closure of the firm.
6. Kornai [1980] has a detailed listing and discussion.
7. See also Alexeev who says he would "... state that the price mechanism works well only in essentially a market system which includes private ownership of the means of production, a well-functioning stock exchange, and other market institutions" [1990, 3n]. There is unfortunately no further elaboration, even though it is quite likely that what he has in mind is very similar to what has been said above.
8. This description draws extensively on details supplied by Sandor Richter in an oral lecture in Jerusalem in 1990. He is clearly not responsible for my rendering of his analysis.
9. Cf. Bauer [1983]; see also Lanyi [1990] and Szamuely [1982].
10. If the pre-BOAL system was in fact decentralized and market coordinated, then the BOAL system quite obviously meant a recentralization, because the complex contracts which were required by the system could not have been arrived at by freely negotiating BOALs without some sort of central nudging.
11. For support, see, for example, Granick [1975]. It should however be remembered that Granick was in Yugoslavia in 1970, a relatively short time after the inception of the decentralized system in 1965 and a couple of years before the start of the recentralization. The latter phase is, indeed, an integral stage of the reassertion of central authority as a reaction to the disillusion with the outcome of the socialist market: see also the analysis of the Hungarian experience *infra*.
12. Bergson's picture of the Yugoslav labor-managed firm presents some question marks over the role of markets in adjusting supply to demand. Since the administratively determined prices did not change over time, it was obviously not demand that adjusted itself [1982, 191f]. Only some kind of understanding that supplying enterprises are responsible to cover demand, as in NEM-Hungary, can explain the behavior of prices. And since such enterprise behavior does not chime with profit (or net

income per worker) maximization, this would also explain the upper echelons' proclivity to large enterprise size [Estrin and Petrin, 1990, 18], another point of similarity with Hungary.

13. Bergson documents the abundance of strikes in Yugoslavia, also evidence that workers did not feel they either owned or controlled their enterprises [1982, 188].
14. There were clearly differences in its behavior in the labor market, which explain the high unemployment in most parts of Yugoslavia, but these are not germane to the topic at hand.
15. The other may be the inability to compensate the innovator, the entrepreneur.

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