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**Privatization, the Entrepreneurial Sector,
and Growth in Post-Comecon Economies¹**

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ABSTRACT

Thinking regarding the privatization of state industries and enterprises in the former Comecon countries has tended to focus on the efficiency gains that would occur in the privatized sector. Based on the comparatively good performance and the rather rigid configuration of Comecon production institutions, the scope for such productivity gains seems small. Rather, productivity and innovation in the post-Comecon economies are likely to depend greatly on the emergence of new, initially small, entrepreneurial firms. The extent and form of privatization may affect these firms' prospects for success. How the privatized-firm and entrepreneurial sector will interact depends on public-finance considerations as well as on considerations of industrial organization.

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1. INTRODUCTION

The transition of economies in the countries that formerly constituted the Comecon economic region towards a more market-oriented structure has been proceeding intensively for the better part of a decade now, but still it remains far from complete. In this paper I will make some observations about the interrelationship between reform of the market as a whole and the reform of individual enterprises that operate in the market, and about the policy choices implied by this interrelationship.

For convenience, I will refer to the economic transition of the former Comecon countries as the “post-Comecon transition.” Perhaps the most important element of the post-Comecon transition has been the privatization of state enterprises. As the paper in this volume by Klaus Schmidt and Monika Schnitzer (1993) makes clear in the case of Germany, privatization has been a difficult and only partially successful process. Some aspects of its difficulty were foreseen. Notably it was well understood that privatization would take place during a period of general political turbulence, that it would involve large wealth transfers that would need to be offset for reasons of both equity and social stability, and that it would “put the cart before the horse” by enlarging the private sector before infrastructure such as a system of corporate and commercial law would be fully in place. In a sense, these foreseen difficulties are short-term ones. Policy makers and market participants supposed that privatized firms would be viable in something like their present form if they could be kept operating and solvent through a period of public-sector adjustment and infrastructure investment.² I will argue here that there are longer-term difficulties as well. These difficulties can be understood in terms of the following four theses.³

1. The Soviet system of production has been more efficient than is commonly recognized. The benefits from dismantling this system abruptly by privatizing its constituent enterprises may not exceed the costs.
2. Soviet planning procedures, which primarily operated via planning ministries at the

industry level rather than from within enterprises, were not dramatically different than the planning procedures that have arisen within some industries in market economies. In some industries, at least, relocating planning to the enterprise level is likely to be counterproductive.

3. To some extent, economic growth in the former Comecon countries is likely to depend on the vitality of small, start-up enterprises. Privatizing existing large firms, or even divesting their divisions as separate enterprises, will not substitute for the inception and growth of new small firms.
4. In some cases, privatization is being accomplished in ways that might possibly perpetuate distortions inherited from the Soviet system in a hidden way. It may be preferable to recognize the cost of these distortions explicitly by funding them in the public sector. In view of these considerations, privatization should not be considered to be a panacea. Whether or not enterprises in existing sectors are to be privatized, a successful post-Comecon transition requires that emerging sectors of the economy should be insulated as effectively as possible from distortions inherited from the Soviet system.

2. RECONSIDERING SOVIET PRODUCTIVITY GROWTH

The former Comecon economies are often portrayed as having become “basket-case” economies because of excessive central control. Specifically, central control is viewed as having hobbled the enterprises of these economies. On this analysis, privatization will free the enterprises from their hobbles and will enable those enterprises to become post-Soviet engines of growth. A first step in thinking about privatization is to examine carefully the conventional wisdom about how the Soviet system performed.

Growth theorists emphasize the growth rate of output per worker as the key to prosperity in the long run. Economies where this rate of growth is fast will overtake those

where it is slow. Thus, in thinking about policy for the post-Comecon transition, a key question is whether the organization of production in the Soviet system really did limit the rate of output growth. Surprisingly to many people, Comecon economies performed well in this respect relative to non-communist economies as a whole, although not relative to the most successful non-communist economies.

I owe my information on this point to Stephen Parente of Northeastern University (personal communication). Parente has calculated the annual growth rate of income per worker in non-communist countries from the Heston-Summers (1988) data set. The average across countries between 1950 and 1985 was just under 2%. Compounding this average growth rate over the thirty-five year period gives a total income growth that is slightly less than doubling. Yet, in that period the Heston-Summers data indicate that income per worker in the Soviet Union rose by more than 325% (and in Czechoslovakia it also more than doubled).

How can we reconcile these rosy statistics regarding the Soviet Union with the reports of privation and stagnation that visitors to that country during its last few years uniformly brought back? There are two plausible answers, of which the first has to do with non-market prices and the second with failure specifically during the 1980s

Soviet production clearly did not provide consumer goods as plentifully, as inexpensively, or of as high quality as Soviet-bloc citizens would have preferred. That is a consequence of decisions at the highest level of the political system in which the planning ministries operated. The Soviet economy was geared to provision of military goods, not to satisfaction of consumers' demand. Enterprises' productivity was measured with respect to artificial planning prices (that is, shadow prices), not with respect to competitively determined market prices. Thus it is entirely consistent that the Soviet economy had notable output growth measured by planning prices but was stagnant as measured according to any reasonable estimate of what competitive prices should have been. Which prices are

relevant for assessing the efficiency of Soviet production? Clearly the planning prices are the right ones to use. We are trying to evaluate how successful Soviet managers were at solving the optimization problem that actually was put to them, not to establish whether or not they were also incidentally successful at solving a problem that was not put to them. The stagnation of the Soviet economy relative to putative competitive prices is an indictment of the Soviet Union's political leadership, not of its technocratic management. In fact, Soviet managers seem to have done rather well. As far as the growth statistics indicate, the planning ministries were as effective as were the enterprise managers (on average) in all but the most successful non-communist countries.

However, it is possible that Soviet managers were much less effective in the 1980s than they had been in the 1950s. In thirty years, the Soviet economy grew from being one of the simplest industrialized economies to a rather complex one because of the very success of the productivity growth that Heston and Summers documented. As complexity increased, the need for decentralized decision making plausibly became more urgent.⁴ On this view, excessive centralization did eventually cause rigidity. The question regarding privatization is whether it will produce the right kind of flexibility. For reasons that I will discuss next, the answer may well be in the negative.

3. PLANNING MINISTRIES AND SELF-REGULATING INDUSTRIES

The view of the Soviet system that has led to the emphasis on privatization in the post-Comecon transition attributes two undesirable roles to the planning ministries that played an important role in that system. First, these ministries are thought to have attempted to substitute for market prices in the coordination of economic activity—a substitution that is thought always to have been infeasible or at least to have grown increasingly so. Second, they are thought to have strangled innovation by having deprived enterprise managers of the opportunity to benefit from the same kind of learning that their counterparts in the

West enjoy. Such a view takes very seriously the abstraction of microeconomic theory that economic activity is coordinated by the invisible hand of market prices, by the visible hand of management at the enterprise level, and by nothing else. In this section I will examine the applicability of this abstraction. I will suggest that the abstraction poorly fits a set of industries that includes some highly successful ones, and that industries built on the Soviet model resemble these market-economy industries in some relevant ways. Given this resemblance, it is doubtful whether privatization of enterprises in existing industries will really replicate the way those enterprises would be operated in a market economy. That is, given that an economy is stuck with industries inherited from the Soviet system, planning ministries might conceivably be the best way to operate them until they are phased out.

Traditionally, most theory in industrial organization has taken firms to be either cooperating as a single agent or else competing strategically as separate agents. Japanese enterprise organization has been taken by some scholars such as Alfred Chandler (1993) in this volume to exemplify a different organizational mode involving collaborative but not collusive groups of enterprises. Actually, a number of industries in the U.S. are also organized in such a way. Roughly speaking, these are the industries in which there are ostensibly private producers' associations that have taken on, with public acquiescence, a fairly coercive regulatory role towards their members. Such associations include the professional associations in medicine and law, university accreditation boards, financial exchanges, and sports leagues.

Consideration of the last of these examples, sports leagues, will make it clear how closely self-regulated industries resemble a model of enterprise organization that is often depicted as being foreign to North America and Western Europe. Professional sports leagues in the U. S. look a lot like the industrial groups that have been hailed as the Japanese "engine of growth." Think first about how scholars such as Professor Chandler describe the Japanese groups.⁵ Presidents of a group's leading firms are described as meet-

ing together weekly to coordinate their policies. Firms' holdings of blocks of one another's stocks implement a profit-sharing plan that make the gains to coordination tangible to the executives of the individual firms. Now consider the familiar cases of professional football and baseball in the U.S. Within a league, team owners are in very frequent communication. The labor market is run by leagues that set recruiting rules so that talented players are distributed more evenly among teams than would be the case if their allocation were determined by salary competition alone. In the case of football in particular, TV-revenue-sharing arrangements within a sports league have much the same effect as interconnected stock holdings within a Japanese industrial group. In summary, the enterprise structure of professional sports in the U.S. is considerably more centralized than the model of an industry with several large firms would suggest. The idea that the firm is the basic unit of industry does not fit professional sports very well. The legal entity in sports that is owned by someone and pays (or doesn't pay) taxes is the team. That is, the team seems to be the best candidate to be called the firm. But recently the professional football players have been in court against the *league*. And in baseball, Commissioner Fay Vincent has been acting like the CEO although he is not even an employee of a league, let alone a team. Nevertheless, particularly if one thinks about the familiar cases of baseball or football, it is clear that the sports industry conforms very well to Professor Chandler's ideal type of a modern industry in point of performance. The sports industry produces a product of unprecedented quality and they distribute it to an unprecedented number of people at an unprecedentedly low cost per person.

Turning back to the post-Comecon transition, Axel Leijonhufvud (1993) makes the case that the Soviet system perversely designed industries in a way that gives enterprises prisoner's-dilemma incentives with respect to other enterprises with which they must deal. The problem has to do with decisions that would be prohibitively costly to reverse, including the use of very inflexible technologies that have been vertically integrated in a way that many large plants have only a single dominant supplier and a single dominant customer.

The resulting incentive problem is of a sort that will not obviously be solved either by Walrasian prices or by coordination arranged autonomously among individual enterprise managers. (Efficient equilibria often exist in repeated prisoner's-dilemma games, but inefficient equilibria always exist even when there is repetition.) Thus, although Soviet-style configuration would not emerge in a market economy in many of the industries where it has been inherited in the former Comecon countries, the use of industry-wide (and even wider) planning ministries may be the best means of coordination available once industries have been configured in this way, if that configuration is not reversible in the short run. There is a close analogy between such coordination and the way that self-regulating industries are coordinated. Given this analogy, we cannot rule out the possibility that this is how an industry with Soviet-style configuration would have to be run if it were to be transplanted to the U. S. or a comparable market economy. We certainly cannot claim that its continuation in the former Comecon countries would be irrational.

4. THE ROLE OF SMALL-SCALE ENTREPRENEURS

What I have written here so far is to the effect that, given the configuration of enterprises and industries inherited from the Soviet system, management by industry-wide planning is probably as effective as private enterprise management would be. There is another possible rationale for privatization, though, that could be valid despite the relative efficiency of industry-wide planning for Soviet-style industries. This rationale would emphasize that the Soviet-style industrial configuration was an outcome of central planning rather than having been an exogenous fact to which central planning was an adaptation. Unless we wish to perpetuate that awkward configuration, it would be argued, the administration of these industries has to be transferred to the kind of coordination—namely enterprise-level management mediated by market prices—that has produced more flexible configurations in the corresponding industries in market-oriented economies.

Implicit in this rationale is the idea that the dominant industries and the dominant enterprises in the former Comecon economies will and should remain dominant after the post-Comecon transition has occurred. That is, it would not make sense to worry about the future configurations of industries and enterprises that one does not believe will be viable in the long term. In economies that are changing abruptly from optimization at artificial planning prices to optimization at world market prices, this assumption of continued viability is questionable. There is every reason to believe that many industries and enterprises that were notably successful within the Soviet system will be unsalvageable failures in an open market economy. Indeed, if it is true that those industries and enterprises possess embodied rigidities that will prevent their operation from changing very substantially, this is exactly the conclusion that should be drawn from my earlier observation that the favorable growth statistics from the Comecon economies were inconsistent with the strong intuitive evidence of stagnation in those economies.

If these industries and enterprises are eventually going to dwindle or disappear, then what will happen to the economies of which they are now so prominent a part? The answer might be that the same thing will happen as, in his paper in this volume, Yijiang Wang (1993) describes as occurring now in China. That is, a flexible and productive entrepreneurial sector will grow up alongside a state sector that continues to exist for some time without very much change in its style of management. At least in the beginning, the entrepreneurial sector will be composed largely of small firms. As Pankaj Ghemawat (1993) demonstrates in his case study in this volume, small firms may be dramatically more profitable than large firms in the same industry, even in a market-oriented economy. Thus there will not necessarily be even a short-term loss from making this sort of a fresh start.

Now I want to examine this prognosis more closely by thinking systematically about the role of small firms and their relationship to large firms in a balanced economy. First I

will summarize some facts about firm size and growth in the U. S. economy and will try to relate these facts to economic models.

The three main facts about firm size and growth are the following. Large and small firms coexist within many industries, with firms over a wide range of size being profitable enough to remain solvent. The size distribution of firms in the U. S. economy has been about constant (relative to the size of the economy) throughout this century. The growth rate of large and small firms is about the same. If anything, small firms are slightly more profitable than large firms (although they are also riskier).⁶

These statistics do not fully reflect the importance of small firms in a market-oriented economy, though. In particular, small firms are apparently the ones that specialize in the innovation of new products. These products tend to be manufactured and distributed most efficiently by large firms, but they tend to originate within small firms. This pattern has been found independently by several groups of researchers. Jewkes, Sawers and Stillerman (1969) studied one hundred significant products invented during the period 1900–1950, and they found that most of these inventions had been made by small firms. A similar result was found in a study by Mueller (1962) of the origins of products manufactured by Dupont. Most of the patents for these products had been purchased from small firms. Finally, Prusa and Schmitz (1991) studied microcomputer software innovations. They found that eighteen of twenty-one types of software (spreadsheets, word processors, and so forth) originated with start-up firms (or, at least, firms new to this industry), although the best-selling versions were marketed by established firms.

How do these facts relate to the former Comecon economies? Because of the abrupt change in their environments, those are economies that need to find appropriate new things to do. Small firms seem to be the organizations that are best adapted to such exploratory work. This is not to deny the point made by Andrew Van de Ven (1993) in this volume, that the process of innovation does not take place within a single organization by any

means. In order to foster innovation, the former Comecon countries undoubtedly need to invest in infrastructure to support communication across organizations. The point that I am making here is that, whatever infrastructure may be provided, newly formed small firms will use it more effectively than could large firms, especially those hobbled by configurations inherited from the Soviet system. Their ability to use it effectively will be determined by whether and how privatization occurs, a matter to which I now turn.

5. PRIVATIZATION AND THE STATE

Schmidt and Schnitzer (1993) describe two approaches to privatization which they call the market approach and the state approach. In its purest form, the market approach would simply to reconstitute existing enterprises as private firms without further ado and to allow them to run in whatever sort of market will form around them. For reasons that I have sketched above (and that Leijonhufvud (1993) develops more fully), such an approach would be dramatically inefficient. Schmidt and Schnitzer describe the government approach in terms of the way that the post-Comecon transition is being undertaken in eastern Germany.

The Treuhand, a public agency controlled by the government, inherited about 9000 companies of the former German Democratic Republic. ... In an extended period of preparation the Treuhand engaged in restructuring by splitting up large conglomerates and replacing more than half of the top managers of its enterprises, but *it has been cautious in laying off workers and closing down factories*. Now the Treuhand tries to sell each firm to a single buyer. ... *In exchange for investment and employment guarantees* the Treuhand is willing to substantially lower the price, which may become effectively negative. So far, privatization has made rapid progress with more than half of the initial stock of enterprises being sold. However, *the largest and most problematic firms are still in the Treuhand's port-*

folio and it is widely expected that the privatization process will slow down soon and may eventually get stuck. (italics mine)

The passages that I have italicized in the above quotation should make clear the conflicting goals toward which privatization is being directed. On the one hand, privatization is supposed to create organizations that will be viable in a market-oriented economy. On the other hand, privatization is supposed to be a vehicle for providing subsidized investment and employment that are not justifiable from a profit-oriented perspective. Small firms, which have been operated in a fairly entrepreneurial way for some time and which often transform non-traded inputs into non-traded products (and are thus somewhat insulated from the abrupt price change accompanying the post-Comecon transition) have not needed much in the way of subsidy. Those firms have tended to be sold quickly and at positive prices. In contrast, the sale of large firms has been tied to the acceptance of heavy contractual obligations that are tantamount, for example, to the provision of long-term unemployment insurance to these firms' workers. The Treuhand has tended not to be able to pay western German enterprises enough to make them accept these side conditions.

This difficulty reflects an underlying economic dilemma. To understand this dilemma, consider the case of a country that has a steel factory where a political decision has been made not to reduce the labor force. Imagine that this country had a comparative advantage in steel-making within the Comecon region, but not relative to western Europe. Thus there is no way that this factory can supply steel that is as inexpensive as imported steel, unless it sells its product at a loss. Suppose also that this country does have a world-wide comparative advantage in metal fabrication—an industry in which small-scale firms can compete effectively. The country's domestic market for the output of a metal-fabrication industry would be modest, but this industry could become a profitable part of an export sector and this outcome would have highly desirable macroeconomic consequences. There may be a catch, though: that the metal-fabrication industry would be internationally

competitive only if it could obtain steel at the world price. It would not be competitive if steel must be obtained at the minimum price that would cover the high costs of the domestic factory.

It is clear that, if a metal-fabrication industry is to arise, entrepreneurs must be guaranteed access to steel at the world price (or, at the very least, at a price below the domestic break-even price). Whoever operates the steel factory must sell its output below cost, then, or else the metal fabricators will turn to imports. That is, pricing is not a decision regarding which the manager of the factory has any real discretion. Also it would not make sense to raise employment in the steel factory above its mandated status-quo level, since the factory is fundamentally noncompetitive due to its world-wide comparative disadvantage. Thus there is no real managerial discretion regarding employment, either. All that the manager can really do in this situation is to run the current factory with its current workforce as efficiently as possible and sell the output at an administered price. That is precisely what the managers of the factory were doing all along, and I began this paper by arguing that those managers did a reasonably successful job on the whole.

Even though it may be managed as efficiently as possible subject to the strict constraints just discussed, the steel factory will lose money as an enterprise. This economic loss is acceptable if the rationale of the factory is not really to produce steel, but rather to keep a group of people honorably employed and to pay them enough money to maintain an ethically and politically acceptable standard of living. The loss incurred by continuing to operate the factory will be paid by the government in one way or another, either by an initial lump-sum payment to a private owner or as a stream of subsidies to an enterprise that remains under state control. It is not obvious that either of these two funding arrangements is more efficient than the other. That is, it is a matter of indifference whether or not the steel factory envisioned here would be privatized.

At the conclusion of the passage that I have quoted above, Schmidt and Schnitzer

report an expectation that the privatization process in Germany will soon slow down and may eventually get stuck. I would guess that the privatization process in other countries may also be on a shaky footing. If privatization does come to a halt before it is complete, should its cessation be resisted or thought endanger the broader process of market reform? The analysis that I have presented here suggests not. For those firms that are not viable as independent enterprises, privatization is simply one way of solving a public-finance problem to which other solutions are available. Whether or not these firms are privatized probably has little significance for these countries' prospects for macroeconomic growth.

Notes

1. The author thanks Leo Hurwicz, Stephen Parente, James Schmitz, and Ruilin Zhou for discussions. The views expressed herein are those of the author and not necessarily those of the Federal Reserve Bank of Minneapolis or of the Federal Reserve System.
2. Specifically this was the supposition regarding firms in industries that either produced non-traded goods or else produced goods that were competitive in international trade. It was well understood that some firms (such as those that produced Soviet-design automobiles) would have to change markedly and that others (such as mines having costs far above world prices) would not be viable at all in an open economy.
3. Axel Leijonhufvud (1993) has independently made a closely related argument.
4. I thank Leo Hurwicz who has emphasized this point to me.
5. The paper by Hajime Miyazaki (1993) in this volume makes clear the complex set of institutions that such a description summarizes.
6. Robert E. Lucas Jr. (1978) discusses antecedent research that documents these facts. Besides Lucas' paper, Vassilakis (1989) is another important recent theoretical contribution to their explanation.

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