MASTER FILES
ROOM C-525

0440

IMF WORKING PAPER

© 1991 International Monetary Fund

This is a working paper and the author would welcome any comments on the present text. Citations should refer to an unpublished manuscript, mentioning the author and the date of issuance by the International Monetary Fund. The views expressed are those of the author and do not necessarily represent those of the Fund.

WP/91/36

INTERNATIONAL MONETARY FUND

Research Department

Proposals for Privatization in Eastern Europe

Prepared by Eduardo Borensztein and Manmohan S. Kumar 1/

Authorized for Distribution by Mohsin S. Khan and Peter Wickham

April 1991

Abstract

This paper discusses several proposals for a wholesale privatization of public enterprises in Eastern Europe. These proposals include the distribution of "vouchers" to private citizens as well as the use of mutual funds, privatization companies and other forms of financial intermediaries. The paper analyzes the implications for economic efficiency of the different forms of ownership and control that would emerge from the proposals as well as their main macroeconomic consequences.

JEL Classification Numbers:
L33, P21, P50

1/ The authors are grateful to G. Calvo, F. Corricelli, I. Diwan, P. Gajdeczka, J. Greene, M. Khan, T. Lane, S. van Wijnbergen, P. Wickham, and colleagues from the European Department for many comments and suggestions.

Contents

Summary

This paper examines some proposals for the privatization of state enterprises in Eastern Europe. There are two reasons why this type of privatization is distinct from that undertaken in industrial or developing countries in the past. First, the scale of privatization envisaged is huge, involving virtually entire economies with thousands of enterprises. Second, there is the perceived need to complete the process in a very short time. Furthermore, the proposals have to contend with highly distorted factor and product markets, a virtual absence of entrepreneurial culture, a lack of capital markets, and the want of any broad-based investor public.

The proposals discussed in this paper all entail a rapid and complete change in ownership by a transfer of the state assets to citizens, in some cases for free. They thus raise issues with respect to creating an efficient structure for the control of enterprises and to protecting government revenues. An excessive dispersion of ownership, a likely consequence of several of the proposals, could weaken the supervision of management and the operation of the takeover mechanisms. On the other hand, highly concentrated ownership, with large sectors of the economy in the hands of a single holding company, could recreate "production ministries" and bureaucratization.

The various privatization proposals have important fiscal and other macroeconomic implications. The distribution of equity will have some positive effect on private consumption, which might need to be offset. Monetary policy will also have to be designed with attention to the changes in the wealth level and the structure of asset demands that will result from, or be influenced by, privatization.

I. Introduction

The foundations of a market-based economic system are property rights and private ownership. Thus, countries in Eastern Europe that are engaged in transforming their economies from ones ruled by the dictates of a central plan to ones in which the private sector plays a preponderant role have rightly focused on the transference of state assets, particularly state enterprises, to private ownership. This paper examines some of the proposals for the privatization of these enterprises. The proposals take into account two features of the privatization process which distinguish it from that undertaken in other industrial or developing countries in the past. The first is the sheer scale of privatization envisaged, involving virtually entire economies with thousands of enterprises, and the second is the perceived need to complete the process in a very short period of time. Furthermore, the proposals have to contend with some specific constraints present in the economies in which this process has to take place, namely, the existence of highly distorted factor and product markets where prices do not generally reflect relative scarcities; the virtual absence of entrepreneurial culture; and finally, the lack of capital markets and any broad-based investor public.

The above features are taken to imply that the traditional forms of privatization through "public" or "private" placement would be both impractical and inappropriate. 1/ Instead, the proposals discussed in this paper all entail a rapid and complete change in the ownership of the means of production by a transfer of the state assets to citizens, in some cases for free. Such a transfer requires the specification of some allocative rules by which citizens can acquire shares in specific enterprises. Some proposals advocate the creation of financial intermediaries that would own and control the enterprises, with the shares of these intermediaries in turn being owned by citizens.

Two critical issues in the design of any privatization proposal are the creation of an efficient structure for the control of enterprises, and the need to protect government revenues. An excessive dispersion of ownership, which is a likely consequence of several of the proposals, could weaken the supervision of management and the operation of the takeover mechanism. On the other hand, highly concentrated ownership, with large sectors of the economy in the hands of a single holding company, could recreate "production

---

1/ "Public" placement entails the sale of an enterprise to the public by the government at some pre-determined price, with the shares subsequently traded in the stock exchanges. "Private" placement, more common in developing countries has involved the direct, privately negotiated sale of an enterprise to an individual or group of bidders. These two traditional forms of privatization have received some attention in the Eastern European countries and have occasionally been used in the last two to three years. The focus of this paper is, however, on the large-scale privatization proposals.

ministries" and bureaucratization, in addition to monopolistic market power. Also, an inevitable reduction in the excessive reliance on direct taxes on enterprises and dividend taxes means that, after privatization, substantial government revenue would be lost. Both of these issues are discussed in some detail below.

The rest of this paper is organized as follows. Section II presents the basic case for a rapid and massive privatization in the current economic environment of Eastern Europe. Section III summarizes the key features of a number of privatization proposals, highlighting their implications for the efficiency of the economy as well as for the efficacy of macroeconomic policies and for the public finances. Section IV notes recent developments regarding privatization in several of the Eastern European countries and discusses some conditions for successful privatization; it also examines a number of macroeconomic issues related to the process of privatization. Section V provides some concluding comments.

II. The Case for Privatization

What is the basic case for privatization? The evident failure of the central planning system has created a near consensus that a move to a market economy is necessary to achieve standards of living comparable to those of industrial economies in the West. A large number of conditions may be regarded as necessary to support such a move, but it can be argued that the most important ones are a competitive environment in which market prices reflect relative scarcities, and enterprises and individuals take decisions mainly in response to undistorted market signals. Private ownership leads to the achievement of these conditions because of the incentives for the private owners to ensure that their costs of production are minimized and that their output mix is determined in response to market signals. 1/ The privatization process would also provide the means whereby the owners can monitor, assess, and control the performance of the managers effectively running the enterprises.

There is, nevertheless, a question about whether the goal of efficiency can be achieved by leaving the enterprises in public hands as at present but requiring these enterprises to respond to market signals in their operations. 2/ Both the cumulative evidence from Eastern Europe and

---

1/ Recently there has been a lively debate in this area, echoing the discussions of over half a century ago between Oscar Lange, Von Mises and Von Hayek. The latter two had purported to show that rational economic calculations and the operation of an efficient market economy were only possible in a system based on private property. See, for instance, John Wilhelm (1990).

2/ There was a considerable discussion on this question during the 1970s in the context of more rational central planning. See, for instance, Brus (1972 and 1973), Nove and Nuti (1972) and Wiles (1977).

theoretical reasons suggest that the answer is in the negative. There have been a number of attempts--most notably in Hungary--in the 1970s and 1980s at "enterprise reforms" designed to give market incentives to state enterprises, the results of which have been disappointing. 1/ Moreover, there are several conceptual reasons to doubt that any such enterprise reforms could be successful. In the first place, the government has other objectives that may not coincide with profit maximization by enterprises. This would be the case, for example, for objectives such as price stability, maintenance of high employment, and regional development. In the second, even if enterprises enjoy full autonomy and markets are liberalized, how well could the state supervise the behavior of management? The problem here arises because the most objective method to judge management performance is by the valuation of enterprises in a stock market, that is, by a number of interested investors that are ready to risk their own money when they perceive a mispricing; but the operation of an efficient stock market requires that enterprises themselves be owned, and in fact controlled, by private agents rather than the state. Thirdly, the minimal risk of bankruptcy for public enterprises would distort financial markets and the allocation of savings. Fourthly, due in part to public pressure, it is unlikely that sufficient competition would be allowed in the industries in which public enterprises operate.

In addition to allocative efficiency considerations, privatization can also be regarded as a key and indispensable process by which the very institution of private property in the productive sphere would be reintroduced into the socialist economies. Until very recently, enterprises in most of these economies were not structured as joint stock companies and for many even now the legal status is unclear. Therefore, in this kind of environment, a full-scale privatization could help create the *ethos* in which other market reforms can be introduced and be successful.

The above considerations suggest that the privatization of productive enterprises is a necessary condition for the move to an efficient market economy. In this respect, there are both economic and political reasons suggesting that the process of privatization should be speedy and comprehensive. The success of the adjustment measures undertaken in Eastern Europe will depend to a considerable extent, even in the short run, on the response of the enterprises. The objective of the market-oriented reforms is that enterprises orientate their production and investment towards activities where they can perform in an efficient and competitive manner. If, because of the existing property structures and the associated lack of incentives, enterprises do not respond to market signals, the stabilization

---

1/ See, for example, Kornai (1986 and 1990).

and adjustment measures are unlikely to produce fully the desired results. 1/

Moreover, a number of Eastern European economies are in a transitional phase where although the system of economic incentives associated with central planning is no longer operational, a market economy is still not in place. The unclear situation regarding property rights and the effective lack of management supervision may allow managers to dispose of enterprise assets for their private benefit, resulting in the decapitalization of enterprises and a breakdown of the production process. From a political perspective, a rapid transformation of the ownership of the means of production is considered to be necessary to ensure a complete break with the old regime.

While recognizing the need for a rapid and massive change in the ownership structure, several observers have expressed concern over possible adverse effects of the process. It has been suggested, for instance, that it could lead to a sharp increase in unemployment as the newly privatized enterprises shed excess labor and become more efficient. It is also thought that it could lead to a highly skewed redistribution of income, which in turn could lead to a political backlash. While these concerns have some validity, they do not support the case for postponing privatization, but instead argue for taking steps to ameliorate the transition costs. The transition to a market economy is bound to be costly, in particular in those sectors where resources have been misallocated to a significant extent, but a half-way transformation of a centrally-planned system can only produce an inferior outcome for the economy as a whole.

III. Privatization Proposals

Despite some early attempts, it is evident that standard privatization techniques, in the form of public or private offerings, are unlikely to serve as appropriate vehicles to transfer the ownership of thousands of enterprises in Eastern European countries. This is so mainly because of the virtual impossibility of making an adequate estimate of firms' market values, the lack of entrepreneurial skills in the private sector, and the lack of private sector savings to purchase the firms being privatized. Because of the severe distortions in prices, trade, and management structures, the past performance of a firm might be of little help in assessing its profitability potential. This factor creates an insurmountable problem for the direct sale of many enterprises. Furthermore, the lack of domestic savings and of enterprises capable of putting together a financing package means that many sales would have to be

---

1/ It has indeed been suggested that the difficulties faced by the 1990 Balcerowicz Plan in Poland were at least partly due precisely to the absence of privatization. See Lipton and Sachs (1990a), and Frydman and Rapaczynski (1990).

made to foreign investors, which is regarded in some countries as politically unacceptable.

But what would happen if an alternative, gradualist and piecemeal, approach were to be followed? This approach would entail privatizing, say, a handful of enterprises each year, so that it would take several years until a substantial proportion of enterprises is turned over to the private sector. During the process, the state would continue to control and manage large parts of the industrial sector. In this context, comparison is frequently made with the privatization process in several Western European industrial countries during the 1980s, where public sector enterprises continue to play some role in the industrial sectors. This comparison, however, overlooks the critical fact that the Western European countries have an established market economy environment with financial markets and ownership and control institutions in place. Therefore, in general, market signals play a key role in these economies. In this setting, if a handful of enterprises are controlled by the state, their performance can be easily judged relative to private enterprises.

A second consequence of the gradualist and piecemeal approach would be that the least efficient enterprises would remain in the public sector domain the longest, and indeed might not be sold off at all. Given the potential number and large size of these enterprises, they would constitute a significant drain on the public sector finances and could easily jeopardize the whole reform process.

In light of the severe difficulties likely to confront the standard privatization procedures in Eastern Europe, several alternative proposals have been put forward. These proposals typically rely on some form of distributive scheme by which at least some share of ownership in the state industrial enterprises would be transferred for free, or for a nominal charge, to the private citizenry. Such a transfer would avoid the problems of valuing enterprises arising in part from the absence of capital markets and solvent investors. However, any scheme of this kind would itself introduce a number of difficulties related to the allocation mechanism for ownership, to the exercise of control of the enterprises, and to the roles of government and workers in the new corporate structure. This section analyzes the key features of the various proposals paying particular attention to these difficulties.

1. The "voucher" schemes

The centerpiece of distributive proposals is some scheme to distribute to every citizen a share of equity in the enterprises being privatized. Some of these schemes have been termed "voucher schemes," referring to the vouchers, or certificates, that each citizen would receive giving an entitlement to some equity shares. The idea of a voucher system appears to have originated in proposals for privatization in Czechoslovakia. Although the detailed implementation of the scheme is still to be decided, it has

already been included in one form or another in privatization laws approved or under consideration in both Czechoslovakia and Romania. It is also being emulated to some degree in Poland.

Most schemes envision a free voucher distribution that benefits all adult citizens of the country. Part of the reason for this is that the state is not considered to be the owner of the enterprises, but only an administrator, while the community as a whole is the ultimate owner. In addition, a high value is placed in achieving an egalitarian wealth distribution, and the free distribution of equity in the privatized enterprises would help to redress at least partially existing inequalities. The voucher distribution would not, however, cover the whole sector of public enterprises, as some enterprises would remain in the state sphere and some would be privatized by other means. Furthermore, in most versions of this scheme, only a fraction of the capital of the enterprises being privatized would be distributed by vouchers.

According to the particular details of the scheme, the vouchers may or may not have a monetary value or be tradable between individuals. In the Czechoslovak initiative, the vouchers were to be denominated in "points" and could only be used to bid for shares in state-supervised auctions of individual state enterprises. There might be several issues of vouchers that could be used in auctions of particular groups of enterprises; it is also possible that each particular issue would not be distributed to the whole population but instead to smaller groups. In the privatization initiative in Romania, the vouchers may have a predetermined monetary value and it appears that the intention is to offer enterprise shares at a value close to book value.

While in most of the above variants of the voucher scheme vouchers entitle the holder to acquire shares in a particular enterprise, in one of the first schemes for privatization in the Soviet Union, put forward by Edgar Feige, each citizen would receive shares in an aggregate of industrial enterprises, some 46,000 in all. 1/ According to this variant, a bundle of equity shares would be constituted consisting of an equal fractional ownership share in each and every state enterprise. This bundle is termed a "citizen share." Fifty percent of the citizen shares would be divided equally among all citizens, and the rest would be distributed among the central government, the individual republics and private investors.

A "pure" voucher scheme would face two serious problems of implementation. First, the public at large is very unlikely to be able to bid in a rational manner in the auctions for individual enterprises. One reason for this is the shortage of expertise to assess the value of enterprises. More importantly, the past performance of firms would not

---

1/ Feige (1990). Although this scheme was aimed specifically at the Soviet Union, several of its key premises could be directly applicable to the Eastern European countries.

necessarily reflect their underlying profit potential, because of the highly distorted price structure and prevalent subsidies under which the firms have been operating in the past. The second problem is posed by the enormous scale of the required auction process. Even if conducted in successive stages, the auction process would include bidding by literally millions of individuals, for each and every one of hundreds, if not thousands, of enterprises. The auction would necessitate some iteration process until a price for each of the enterprises is found such that all enterprises are sold, and all vouchers are used up. If the auction process left some unsold enterprises or unused vouchers, it would mean that the enterprises being sold were not valued correctly, and the bidding must continue. In addition, if the vouchers have a monetary value and are tradable they may also threaten macroeconomic stability, since their issue would constitute a large increase in monetary balances (or in close substitutes to money). The problem might be temporary, however, to the extent that privatization becomes operative and the second-stage sale of equity shares absorbs liquidity. Also, the liquidity value of vouchers would be considerably diminished if they are nontransferable (as in Romania).

2. The case for financial intermediaries

Even if the distribution of shares through the voucher scheme could be successfully completed, questions as to whether the resulting ownership structure would provide an efficient system for management supervision would remain. Because of the substantial externalities involved in overseeing the actions of managers, a widely dispersed shareholding might imply that no individual shareholder would undertake significant supervision functions. While it is true that once the firms are under private ownership the risk of bankruptcy would be present and would motivate managers to avoid losses, inefficient enterprises do not instantly go bankrupt and could continue to function for a long time before facing serious financial problems. On the other hand, with bankruptcy being the only potential constraint on management, the system could inhibit managers and in fact lead to too little risk-taking. More importantly, an essential mechanism of management discipline, namely takeovers, is not very effective with broadly dispersed shareholdings (see Grossman and Hart (1980) and Shleifer and Vishny (1986)). 1/ This means that, in the limit, should ownership become equally distributed among all citizens, managers would have little effective scrutiny over their actions and not enough incentive for profit maximization. This suggests that a pure voucher scheme is unlikely to have general applicability. At best, it might have a limited application for the privatization of small enterprises, in which the likely bidders would have

1/ For a discussion on the role of the takeover mechanism in enforcing managerial discipline, see, for instance, Kumar (1984).

some idea of the productive potential of the assets and have a chance to acquire control of the enterprises through the public auction. 1/

A response to the problem of monitoring is required. Under the Feige proposal, up to 20 percent of shares would be auctioned separately for each enterprise to the private sector and foreign investors, with special incentives being offered to workers and managers. Private shareholders would be the group entrusted with the main responsibility for monitoring management performance. In addition, the participation of workers and managers would be expected to provide additional work incentive and improve efficiency. There are, however, some problems with this private auctioning scheme. As noted above, market valuation of enterprises could be extremely hazardous even for managers and workers. Furthermore, the process might take a long time, during which the enterprises would still be public enterprises for all practical purposes. Eventually, it might also be the case that government would be able to sell only the most efficient enterprises, and be left effectively controlling a large number of loss-making firms, having to face worker resistance to liquidation of these enterprises.

A different solution to the enterprise control problem is contemplated by a number of proposals suggesting the creation of financial intermediaries that would hold shares in the individual enterprises, with the public in turn owning the equity of these intermediaries. For example, Roman Frydman and Andrzej Rapaczynski (1990), with reference to Poland, have proposed that citizens transfer their vouchers to intermediaries--mutual funds--in return for shares in those funds, and the mutual funds use the vouchers to bid for equity in different enterprises. The existence of these intermediaries would not necessarily exclude direct purchases of equity in the enterprises by households. In order to simplify the auction logistics, Frydman and Rapaczynski propose that a series of smaller auctions (comprising 150-200 companies) be conducted, each one of them using a designated issue of vouchers, with the unused ones becoming worthless after the auction.

A different proposal that would involve financial intermediaries has been put forward by David Lipton and Jeffrey Sachs, also with reference to Poland. 2/ This scheme envisions free distribution of shares to several financial intermediaries (some of them newly created) and the creation of a system of institutional enterprise control. The system of enterprise control would be implemented by an active participation of the different financial intermediaries on the boards of directors of the enterprises. Some five mutual funds would be created and would collectively receive

---

1/ Tirole (1991) presents an in-depth analysis of the welfare implications of the corporate and market structures that emerge from different privatization proposals.

2/ Lipton and Sachs (1990b). Even though the details of the distribution proposal are only illustrative, they are reproduced here to help explain the concept.

20 percent of the shares; these mutual funds would be organized as joint stock companies, with all adult citizens receiving a share in one of the mutual funds. Other institutions receiving shares and expected to be active on boards of directors would be newly created private pension funds (which would eventually replace the government pension system), and commercial banks and insurance companies, which themselves are undergoing privatization. Workers, managers and directors would also receive some shares and, over time, private investor groups would be sought.

Although the corporate structure envisioned in this scheme might eventually generate an efficient enterprise supervision system, there would be a transition period during which the control of enterprises would rest mostly with the government. During an initial period--of uncertain duration--only the government and the financial intermediaries (whose managers would at the outset be appointed by the government) would participate in the corporate boards of directors. This has two implications. On the one hand, even though mutual funds would be private, their managers would effectively be subject to little shareholder control. On the other, state participation in the governing corporate boards might effectively lead to a controlling position for the government, or at least to a large influence on, and potential distortions of, business decisions. Thus, despite its minority voting power, the government would be able to exert considerable influence and it is not hard to conceive of situations in which the government's policy objectives might differ from a strict profit maximization objective. This problem could be avoided to some extent, however, if government shares were of a nonvoting nature.

The proposal by Olivier Blanchard et al suggests the creation of a different type of financial intermediary. 1/ The financial intermediaries in this proposal would be holding companies with a prescribed temporary life span, that would act merely as privatization agencies. In contrast to some existing or proposed privatization agencies in several Eastern European countries, the holding companies in this proposal would be private companies. The holding companies would have the sole purpose of restructuring and later selling (or liquidating) each group of enterprises. These enterprises would have a predetermined dissolution date, say in about 10 years, by which time they should have completed their functions and paid as dividends the revenues from privatization. Ownership of the holding companies would be equally distributed among all citizens, which would provide substantial financial resources to the private sector to support the eventual purchase of the enterprises as they came up for sale.

This scheme does not conceive of any predetermined framework for the eventual structure of ownership or control of the enterprises. Thus, the holding companies would be free to use any method they choose to sell or liquidate firms, and would be able to sell to any party, including

---

1/ See Blanchard, Dornbusch, Krugman, Layard and Summers (1991), and on Poland see Blanchard and Layard (1990).

foreigners, workers of the firm, etc. Corporate structure would then be basically left to market forces, which is a positive feature, considering that neither economic theory nor evidence has yet produced a clear cut answer to the problem of optimal enterprise governance. The proposal does, however, raise some questions about whether the appropriate conditions for privatization can be generated as the holding companies prepare the enterprises for divestment. In particular, the lack of financial institutions and expertise, of entrepreneurial culture, and economic agents with the capacity to become major shareholders might be difficult to overcome, even after a number of years.

The creation of financial intermediaries, however, may only add another layer in the corporate governance structure without solving the problem created by the dispersion of the ultimate ownership. Frydman and Rapaczynski stress competition between intermediaries, both for vouchers pledged by citizens and in bidding for enterprises, as market mechanisms to avoid bureaucratization of the intermediaries. There is the danger, however, that by allowing bidding for the enterprises, the government would be able to dispose of only the more efficient enterprises. Lipton and Sachs, in contrast, believe that the institutional structure they propose for corporate governance would generate the proper incentives through competition among the different financial intermediaries that would be created. Blanchard et al (1991) explain that, since shares in holding companies would be tradable, the evolution of their market value would put pressure on managers through public opinion and the government would retain the right to remove managers of the holding companies in extreme situations. Despite all these safeguards, the complete lack of experience with the operation of private corporations and of financial markets probably means that in Eastern Europe the problem of corporate control may not be completely solved in a short period of time under any framework.

3. Public finances and role of government

Any privatization plan has at least two important implications concerning the government. First, what are the public finance consequences of the transfer of property from the public to the private sector, and second, what would be the role of the government or government agencies in the control of the private enterprises? At present, public enterprises in Eastern Europe are an extremely important source of revenue for the central government budget. Part of this revenue comes in the form of "dividend taxes," which are a sort of direct remittance of profits, and part from other direct taxes on enterprises. Since public finances rely almost exclusively on enterprise taxes, the current level of direct taxation would be too high were it to be transferred to a private enterprise system. Therefore, it would be necessary to create new taxes or take some other measures to make up for the lost revenue. 1/ In addition, in the

---

1/ Tax reform is, in fact, under way throughout Eastern Europe, which may be the more practical solution to this problem.

distributive privatization schemes discussed above, the government is giving up assets that might have positive market values under the appropriate circumstances; this also represents a loss of revenue in present value terms that must be considered when designing medium-term fiscal strategies. Regarding government's role in the control of the privatized enterprises, some degree of involvement is probably unavoidable, at least initially, but it is important to ensure that this role does not distort the profit-maximizing motivation of enterprises.

The proposals noted above suggest differing solutions to the above two problems. In Feige's proposal for the Soviet Union, for instance, the central government would receive 10 percent of the citizen shares and the republics' governments would receive 20 percent of the shares. These shares would provide a source of revenue that would reduce reliance on other taxes. There is an appealing feature to this scheme in that, from the point of view of fiscal theory, owning shares is probably the least distortionary way for the government to obtain revenue. In Lipton and Sachs's proposal, the government would retain some shares but only on a temporary basis. Also, in their proposal the free distribution of property does not necessarily entail a commensurate loss of assets because it substitutes for other expenses the government would have had to face. In particular, this applies to social safety net expenditures and to the recapitalization of financial intermediaries in difficult financial situations.

As regards the control of enterprises, even ignoring arguments based on economic theory, the track record of public management of enterprises should suffice to establish the case for minimizing government involvement. The government will, however, have to play an important role in the surveillance of regulations concerning fair practices in financial markets, antitrust laws, etc., and probably also in the organization and launching of the financial intermediaries. The proposals of Blanchard et al and of Frydman and Rapaczynski stress the objective of ensuring a minimal role for government in the control of enterprises.

4. The self-management movement

An alternative mode of privatization, which does not appear to be generally favored, is via the self-management movement. This form of privatization implies the transfer of ownership rights directly to the workers of each particular enterprise. Generally, a worker's claim on his firm's profits or assets is not transferable, that is, it is contingent on being an employee. In some cases, privatization via self-management is based on the fact that, after successive enterprise reforms, legal property rights have become poorly defined and that worker councils may already have acquired some de facto control over management and profits, including the disposal of part of the firm's assets. For example, there have been some instances of "spontaneous privatization" under very favorable conditions for buyers that have taken place in both Hungary and Poland.

There are two major problems with this form of employee privatization. The first one is a question of equity and fairness, since this type of transference of assets would only benefit a very limited segment of the population (which is already privileged by holding jobs in the largest companies). The second problem concerns the efficiency of a self-managed enterprise. Economic theory suggests that such enterprises will underinvest and have shorter planning horizons than is the case otherwise. In addition, it would be complicated to attract private investors to acquire a minority stake in a worker-controlled enterprise, because workers could curtail dividend payments by granting themselves salary increases. Further, if shares are not transferable, worker mobility would be seriously impaired.

Short of an outright sale to workers, it is likely that whatever specific proposal is adopted workers are likely to receive part of the shares in the enterprises where they work. For instance, in both Poland and Romania privatization laws have already established that workers will either receive for free, or under concessional terms, a fraction of the enterprises' shares. As long as workers do not acquire control of the board of directors, a fractional employee ownership is very different both from an equity and an efficiency perspective and should not pose any serious problem to implementation.

5. Distributive and wealth effects of privatization

All of the above proposals have important consequences regarding income and wealth distribution as well as on private savings. To the extent that consumers are not perfectly Ricardian in their view of public finances, share distributions will represent an increase in private wealth; 1/ furthermore, the distribution of this increase will be completely egalitarian. Such distribution would then also serve the purpose of providing a cushion against social costs incurred due to a rapid economic transformation that is accompanied by increases in unemployment. The distributive effect is also considered an important political objective of privatization since it would overcome a major drawback of a sale of state assets, which is that it would likely benefit only two sections of society: the communist elite ("nomenklatura") and black market operators. In addition, depending on the details of the proposal, individuals would receive a well diversified portfolio of assets, comprising almost the whole industrial sector. Such diversification may help to avoid excessive riskiness to the individuals that lack the expertise or financial advice to manage their portfolios.

In some proposals the vouchers would be given to citizens at a nominal cost. Although in this case the shares would be substantially undervalued,

---

1/ In fact, because of expected efficiency gains and the currently poorly defined property rights over enterprise profits between the government, management and workers, even fully Ricardian consumers would interpret the reform as an increase in their wealth.

their sale would be a means of absorbing any excess liquidity in the system or the existing monetary overhang. 1/ From a fiscal point of view, the sale may appear desirable as partially offsetting the loss of state assets. But, ruling out a significant participation of foreign investors, the enterprises might have to be sold considerably below their true market value in order to find enough potential buyers for all the shares, because the amount of assets held by households would not be sufficient. In some Eastern European countries, even though monetary assets are high relative to Western economies (the "monetary overhang") total private assets are not very high because of the lack of opportunity to hold assets other than broad money.

The provision of a well-diversified portfolio for consumers is also given consideration in some proposals with a view to ensuring that the distributive aspect of privatization benefits all citizens. Of course, consumers would be able to readjust their portfolio after some time, but many may choose not to take any action. In most proposals enterprises would in fact be grouped in such a way as to constitute well diversified portfolios. The possible exception is the proposal by Frydman and Rapaczynski that allows the different financial intermediaries to bid for enterprises and possibly end up with very unequal portfolios. A risky asset composition for consumers may generate frustration about the benefits of the privatization process and pressures for the bailout of less successful intermediaries.

The more salient features of the different "comprehensive" privatization proposals discussed in this section are summarized in Table 1. While these proposals are not exhaustive, they do identify the essential features of any distributive privatization scheme. In some cases they have been put forward by economists with an academic interest in the problem and in others by policy-makers and consultants with a specific framework of action in mind. Also, these schemes should be regarded as somewhat "pure" cases; the actual privatization initiatives, discussed in the following section, combine a variety of features from the different proposals.

IV. Privatization Efforts Under Way in Eastern Europe

1. Recent developments

The privatization initiatives actually being undertaken, or in the process of elaboration, in several of the Eastern European countries do not reflect any one scheme but rather a combination of different schemes. The initiatives are in a state of flux and the precise objectives and methods of implementation are changing over time. Privatization laws have been

---

1/ Feige's proposal was tailored to the Soviet Union before the monetary reform of January 1991. It is possible that some monetary overhang remains both in the Soviet Union and other Eastern European countries.

Table 1. Comparison of Distributive Privatization Proposals

Proposal	Ownership Structure	Management Supervision	Mechanism of Privatization
Vouchers (proposed in Czechoslovakia, Romania, etc.)	Private shareholders 100%	Supervision by shareholders	Free distribution of "vouchers" exchangeable for enterprise equity.
Citizen shares (Feige)	Citizens 50% Central gov. 10% Republics 20% Private and foreign 20%	Mainly by private and foreign owners.	Citizen shares sold at undervalued prices; private shares auctioned with right of first refusal to workers and managers.
Financial intermediaries (Frydman/ Rapaczynski)	Citizen-owned mutual funds 100%	By private intermediaries that bid for the enterprises they would like to acquire.	Free distribution of vouchers to the public. Intermediaries funds sell stock to the public in exchange for vouchers used to bid for enterprises in a series of auctions.
Financial intermediaries (Lipton/Sachs)	Citizen-owned mutual funds 20% Pension funds 20% Banks 10% Workers 10% Managers 5% Government for later privatization 35%	By competing mutual funds that overlap in the same firms, by banks, and eventually by a "stable core" of private investors that will acquire shares from the government.	Free distribution except for sale to private investors at a later stage.
Privatization companies (Blanchard et al)	Citizen-owned holding companies 100%	By holding companies, themselves controlled by competition, government supervision, and the use of performance-based compensation.	Free distribution of shares in holding companies to all citizens.
Self-management	Workers and managers 100%	Current employees acquire rights to profits and assets of enterprises. Ownership rights nontransferable.	Legal structure in Hungary and Poland allowed some "spontaneous" privatizations by current management.

approved in several countries, but these laws, with the possible exception of Romania, merely state the intention to privatize, without establishing a specific scheme or timetable for doing so. The discussion below summarizes the main features of the initiatives undertaken so far.

In Romania, the privatization law of August 1990 transformed the state enterprises, except those in strategic industries such as defense, energy and infrastructure, into commercial companies (joint stock or other forms of limited liability corporations), with 30 percent of their capital being transferred to the National Agency for Privatization (NAP). The law requires the NAP to issue vouchers to every citizen over the age of 18, which will later be used to acquire a 30 percent share of capital in state enterprises owned by the NAP (apparently at prices established by that agency on the basis of book value). Shares for the remaining 70 percent of capital would be issued and sold subsequently, with 10 percent of the shares reserved for purchase under preferential conditions by enterprise employees. By September 1991 a free stock exchange market is scheduled to start trading in enterprise shares. 1/ In addition, privatization of small-scale enterprises and shops is well under way, as well as the establishment of new private small enterprises, many with foreign participation.

In Poland, the main privatization initiative was taken in July 1990 when legislation was passed by an overwhelming majority of the Polish parliament giving the government authority to undertake privatization of the industrial sector. Passing of the law paved the way for settling the issue of property rights in favor of the central government. While this facilitated the move to privatization, the method for doing so was not then decided, and is only now being elaborated. The proposal being currently developed divides the process of privatization into several categories. 2/ Shares in the 500 larger enterprises would be distributed to different sectors while smaller size companies would be either sold or liquidated. The 500 enterprises will be disposed of in several stages, the first of which would comprise 150-200 enterprises. The government will issue free vouchers to the entire population for the equivalent of 30 percent of the value of the privatized enterprises, to the Social Security office for 20 percent, and to banks for 10 percent of that value. Ten percent of the shares will be distributed to employees. The creation of intermediary institutions will be authorized, which will sell their shares in exchange for vouchers that will be used to acquire stock of the privatized companies in an auction. In the scheme's early stages, the state will retain a 30 percent holding in each enterprise, but it will deposit those holdings with the intermediaries, who will be in charge of selling the state's shares to other investors using any modality they find fit. The government will

---

1/ The framework outlined in the privatization law is still in a phase of elaboration to find appropriate mechanisms for its implementation. For example, the creation of private holding companies acting as privatization agencies is being considered.

2/ The details are given in Frydman and Rapaczynski (1990), Appendix III.

appoint a director to the board of the intermediaries for the period of time until the sale of its shares to other investors. Meanwhile, several thousand small enterprises, almost entirely retail outlets, have been already privatized.

In Czechoslovakia, where the voucher scheme was elaborated, the actual privatization process falls into three phases. In the first phase, restaurants, shops and other small service outlets will be sold to the private sector. Individuals whose property was confiscated after the communist takeover in 1948 will have the right to claim the restitution of their property within a limited period. What remains will be auctioned off to the public. The second phase will involve large-scale enterprises. Vouchers will be distributed to all Czechoslovak citizens which will eventually be exchanged for shares in those enterprises. The modus operandi of this exchange, or its timetable, is yet to be determined. The state remains determined to retain at least a 20-30 percent stake in these enterprises partly for fiscal and partly for political reasons. The third phase envisages hiving off a group of state run enterprises and transforming them into joint stock companies.

In Hungary the groundwork for privatization was laid down by legislation in 1988, which allowed state enterprises to convert themselves into joint stock companies. This law led to a spurt of "spontaneous privatizations," whereby the incumbent managers of the enterprises, reflecting the general political climate, took it upon themselves to sell assets that they were managing. Frequently, these managers--almost invariably former party officials (the "nomenklatura")--were selling assets cheaply to foreign investors, supposedly in return for higher salaries and guaranteed jobs. A law passed in 1989 addressed some of the abuses of spontaneous privatization and established rigorous procedures for subsequent privatization. At present the privatization process is overseen by the State Property Agency, in operation since March 1990. The enterprises will be sold through public or private placements, through spontaneous privatizations, or through employee stock ownership schemes.

2. Elements for a comprehensive privatization program

One obvious reason why comprehensive and speedy privatization has encountered serious problems is because it is perhaps the most difficult of the economic reforms facing the socialist economies. It is also clear that privatization cannot be attempted unless other fundamental economic reforms are being undertaken--a private enterprise system would hardly prosper within a centrally planned economy. Among the other reforms, there are in particular two without which privatization is unlikely to prove successful. They are price and foreign trade liberalization, and financial market reform, including a "regularization" in the financial position of both enterprises and banks.

Unless newly privatized enterprises are free to set the prices of their output, and face the correct price signals, privatization would not even be feasible. In the Eastern European context, price liberalization also means the removal of subsidies and lifting of tariffs and barriers to international trade, in addition to the currently implemented reversion to international prices in the CMEA trade. Ideally, the economy should be open to international trade simultaneously with domestic price liberalization to avoid a duplication in the resource reallocation effort, with its associated adjustment and unemployment costs. Also, from a political economy point of view, a move to an autarkic economy may create an economic structure that generates strong pressures on policymakers against foreign trade liberalization. In addition, a prompt lifting of trade barriers would contribute to guide the determination of domestic prices of many goods at the early stages of price liberalization. 1/

The development of financial markets will also be necessary for the operation of the newly-privatized enterprises. The development of financial markets will require considerable work in designing the regulatory and supervisory functions of the monetary authorities. But an even more pressing problem is created by the weak financial positions of many enterprises and banks. Improving the enterprises' financial situation before their privatization would allow their operating results to depend on market performance rather than on their inherited liabilities, which may have been due mainly to the distorted price and subsidy conditions of the planned economy. Such an action will require some cancellation of debts both with banks and other enterprises. 2/ Given that most inter-enterprise debts involve only the public sector, it would be easy to consolidate and clear those debts before proceeding to privatization. Writing off debts with the banking system is more complicated because it would further deteriorate the financial position of banks, even if the true economic value of those debts is already well below their book value. This means that banks would need to be recapitalized, which could in part be done by transferring to them some form of equity in the enterprises. Regarding foreign debt, if the debt is significant, measures should be taken to "privatize" it as well by transferring it from the government to the financial intermediaries who would control the enterprises. These debts could then be serviced from the flow of dividend payments made by enterprises to the financial intermediaries and would not be a drain on government finances. 3/

As discussed above, conventional privatization methods cannot achieve a large-scale privatization in the current conditions of Eastern Europe. It would also not be possible to replicate a particular blueprint for the wholesale distribution of property; each country should search for

---

1/ On this and other sequencing problems, see Fischer and Gelb (1990).

2/ Some cancellation of debts has already been implemented in Romania.

3/ For a useful discussion of the external debt situation of the Eastern European countries see Diwan and Saldana (1990).

alternatives that best fit its particular legal and political environment. Nevertheless, it is possible to identify some general features that any privatization plan should satisfy if it is to achieve an efficient market system.

A successful privatization initiative should create conditions for the achievement of two essential objectives. First, it should create a management/ownership structure conducive to profit maximization. This condition is necessary to ensure that the price and market reforms needed to achieve an efficient resource allocation in the economy are successful. Second, the initiative should avoid potentially serious fiscal problems for the government. These problems could arise either because of the loss of the incoming dividend flow or as a result of a sharp reduction in direct tax revenues from enterprises.

The creation of an efficient structure for the supervision of management is the most complicated issue any privatization proposal must deal with. This issue cannot be easily circumvented by making use of the incentives generated by a system of performance-based compensation for employees and managers. The problem is that the best way to implement such an incentive scheme requires the existence of a well developed, efficient market for the enterprises' stocks on which remuneration would be based. If such a market existed, there would be no difficulties in privatizing the enterprises, that is, the problem would not exist in the first place. It could be argued that in the absence of a well developed stock market, compensation could be made contingent on current profits, as an imperfect indicator of performance. The trouble with this approach is that it would quite likely create the wrong incentives for managers, discouraging investment and restructuring measures that would produce returns only in the future.

As discussed above, a broad dispersion of ownership, which must necessarily arise from a citizen share distribution, may create problems for stockholders to supervise management. In the limit, an excessive dilution of ownership would resemble the current situation in which there is virtually no externally imposed discipline on managers of state enterprises. Thus, the objective of efficient management control establishes the need for the creation of financial intermediaries (holding companies or mutual funds) to exercise control on behalf of the public at large. In addition, the establishment of financial intermediaries would have a number of positive side effects: they would provide much needed diversification services for households; they would obviate the need for the public at large to become informed and make individual decisions in bidding for individual enterprises; and they could reduce administrative costs.

However, the operation of financial intermediaries of this sort presents economic problems of its own. To begin with, there is the risk that the financial intermediaries become new "production ministries." Their structure may begin to look too much like that of government agencies, with

questionable incentives to respond to enterprise mismanagement, and they may easily become victims of bureaucracy or worker pressure against the necessary restructuring measures.

In this respect, the idea put forward by Blanchard et al (1991) of designing financial intermediaries whose sole purpose would be the restructuring of and divesting themselves of enterprises within a predetermined period of time, appears to be a reasonable solution. This could be reinforced by setting a timetable of quantitative targets for privatization and by linking the compensation of managers of holding companies to the achievement of privatization. For example, a management bonus, which is proportional to revenues from privatization, could be established.

Another critical problem is that the financial intermediaries are only another layer between households and enterprise management, which requires some mechanism of control itself. To some extent, the relative performance of a few large intermediaries that hold similar portfolios could be easily monitored, since their shares would be traded in a stock exchange. But an accurate valuation of those shares could be difficult, since the enterprises that remain under the intermediaries tutelage might still not have publicly traded equity.

The problem of management control is a very complex one, and there is no generally accepted optimal ownership structure to deal with it. In fact, very different structures predominate in different countries: stock markets and takeover mechanisms are the key features in the United States and the United Kingdom, while bank involvement in corporate direction is the dominant characteristic in Japan and Germany. Whatever the final structure, there is an important role to be played by a regulatory agency overseeing fairness in the privatization process. Otherwise, the risk of disadvantageous sales of assets, which has been prominent in the spontaneous privatizations, may reappear in the guise of poorly regulated mutual funds or privatization companies.

3. Related macroeconomic issues

From the macroeconomic point of view, the loss of revenue (in present value terms) for the government may become a pressing problem. Apart from enterprise profits or dividends, the current tax system in centrally planned economies is almost exclusively based on direct enterprise taxes, and would need to be reformed in the context of a market economy open to international capital flows. In Hungary, for example, *average* direct taxes on enterprises amounted to 78 percent of enterprise gross profits during 1986-88. Such level of taxation would probably cause massive capital outflows in an open economy. In Czechoslovakia, taxes on enterprise profits are being gradually reduced from 75-85 percent (depending on the type of enterprise) to 55 percent. In Romania, until 1990, all enterprise profits were remitted to the state--the tax rate was of 100 percent. (Current rates are graduated

but still high). Therefore, privatization will create the need to make up for lost revenues elsewhere (a value added tax, for example), or to drastically reduce government spending. An interesting alternative is to let government retain partial ownership in the privatized enterprises so as to keep some source of revenue. This type of revenue would be nondistortionary, 1/ and would avoid the need for taxes that distort resource allocation. Given the overriding objective of creating an efficient productive structure, it would be prudent to keep the government out of enterprise management, but this could be easily accomplished by issuing non-voting shares to the government.

Another important macroeconomic problem with any privatization proposal that involves free distribution of ownership is the risk of generating a sharp increase in private consumption. The transfer of property to consumers would actually represent an increase in private wealth. Therefore, a sizeable increase in private consumption would most likely follow. For example, suppose that the distribution of enterprise ownership represents an increase in private wealth equivalent to three times current consumption. 2/ Even if consumers decide to spend only 10 percent of this increase in wealth, private consumption would increase by 30 percent. Although part of the increase in consumer spending could actually substitute for government safety-net spending, it might be necessary to curb private consumption at the risk of jeopardizing the stabilization effort. For this purpose, some form of consumption tax would be an appropriate instrument. Given the difficulties involved in the implementation of a consumption tax system, a workable alternative could be a tax on dividends and on the proceeds from sales of citizen shares, which would be refundable if the resources were reinvested in some other productive asset. If citizens' assets were held through a few financial intermediaries, this tax would be simple to implement and monitor.

In the area of monetary policy, it has been suggested that the sale of state assets could be used as a means to sterilize the "monetary overhang" that is present in centrally planned economies after years of price controls. The concept of monetary overhang is, however, somewhat elusive. On the basis of both theoretical and empirical reasons some authors (Portes and Winter (1978) and Osband (1989)) discount the importance of the monetary overhang problem, arguing that if real monetary balances were evaluated at the "real" prices, that is, prices that include the cost of waiting in line to purchase goods or that prevail in parallel markets, there would be no undesired holdings of real monetary balances. Also, if prices increase very rapidly following liberalization, the monetary overhang can be eliminated so quickly that monetary policy rapidly becomes overly restrictive. This appears to be one factor explaining the sharp fall in output following price

---

1/ In a Modigliani-Miller world.

2/ Assume that enterprises accounting for 50 percent of GNP are given away; if the capital-output ratio is 3 and private consumption is 50 percent of GNP, then wealth increase is as noted.

liberalization in Poland (see Calvo (1990) and Calvo and Coricelli (1991)). Furthermore, even accepting the existence of a monetary overhang and the need to take some measures, the use of privatization would not be very effective for this purpose simply because of the problem of timing. It takes considerable time to set up any large scale privatization scheme, while price increases would immediately follow a price liberalization (Dornbusch and Wolf (1990)).

V. Concluding Remarks

The privatization proposals discussed in this paper are all concerned with transferring the ownership of the bulk of Eastern European state enterprises into private hands within a very short period of time. While the proposals do not correspond exactly to specific initiatives, they do provide a spectrum of the building blocks from which these initiatives could be assembled. The paper has discussed at length the relative strengths and weaknesses of the different proposals and elaborated some general principles for privatization. It has also discussed the macroeconomic ramifications of the privatization process.

There are a number of important conclusions emerging from the above discussion. In the Eastern European context, large-scale privatization cannot be accomplished by traditional methods and some form of "distributive" scheme will be necessary. In the design of such a scheme particular attention should be given to ensure market competition and an efficient method of management supervision. The latter point is a major shortcoming of pure "voucher" schemes and the main reason to adopt some form of financial intermediaries between the enterprises and private citizens. The form of this intermediation might have to be decided by the circumstances in each country. Finally, there are a number of important fiscal and monetary implications of any particular privatization process which must be taken into account in both its design and implementation.

Despite the perceived need to undertake large-scale privatization, actual initiatives adopted by most countries to date have been quite limited. Instead of a wholesale privatization, with the possible exception of Poland and Romania, the initiatives seem to be adopting a piecemeal approach. The problem with this limited approach concerns not only its feasibility and its equity implications but also that the whole move to a market economy, and even macroeconomic stabilization, is unlikely to be accomplished without a fundamental change in property rights and economic incentives.

What then accounts for this apparent piecemeal approach? Part of the explanation could be that the current initiatives are actually not complete. The schemes that are being implemented are preliminary and are concerned in some sense with testing the environment for a large-scale privatization which would follow. A stronger reason, however, appears to be the concern

about the likely economic costs of structural reforms, and increasing political resistance from different sections of the community. Some of the economic costs were discussed in the paper, and relate mainly to a short-run increase in unemployment and inflation. Under these conditions, the resistance to a large-scale privatization from groups that could claim some stake in the current regime would be strengthened. It should be emphasized, however, that high as the adjustment costs may be in the short run, the costs of not undertaking significant privatization may be far greater in the medium and long run.

References

Blanchard, Olivier, Rudiger Dornbusch, Paul Krugman, Richard Layard and Lawrence Summers (1991) Reform in Eastern Europe, MIT Press, forthcoming.

Blanchard, Olivier and Richard Layard (1990), "Economic Change in Poland", Center for Research into Communist Economies, July.

Brus, Wodzimierz (1972) The Market in a Socialist Economy, Routledge and Paul, London, U.K.

_____ (1973) The Economics and Politics of Socialism: Collected Essays, Routledge and Paul, London, U.K.

Calvo, Guillermo (1990), "Financial Aspects of Socialist Economies", paper presented at Conference on Adjustment and Growth: Lessons for Eastern Europe, Pultusk, Poland, October.

_____ and Fabrizio Coricelli (1991), "Stagflationary Effects of Stabilization Programs in Reforming Socialist Countries: Enterprise-Side vs. Household-Side Factors", mimeo., Research Department, International Monetary Fund, Washington D.C., February.

Diwan, Ishak and Fernando Saldana (1990), "Long Term Prospects in Eastern Europe: The Role of External Finance in an Era of Change", mimeo., The World Bank.

Dornbusch, Rudiger and Holger Wolf (1990), "Monetary Overhang and Reforms in the 1940's", mimeo., MIT.

Feige, Edgar (1990), "A Message to Gorbachev: Redistribute the Wealth", Challenge, May-June, pp. 46-53.

Fischer, Stanley and Alan Gelb (1990), "Issues in Socialist Economy Reform", World Bank PRE Working Paper WPS565, December.

Frydman, Roman and Andrzej Rapaczynski (1990), "Markets and Institutions in Large Scale Privatizations", paper presented at Conference on Adjustment and Growth: Lessons for Eastern Europe, Pultusk, Poland, October.

Grossman, Sanford and Oliver Hart (1980), "Takeover Bids, the Free-Rider Problem, and the Theory of the Corporation", The Bell Journal of Economics, 11, Spring, pp. 42-64.

Kornai, Janos (1986), "Soft Budget Constraint", Kyklos, Vol. No. 1, pp. 3-30.

_____ (1990), "The Affinity Between Ownership Forms and Coordination Mechanisms: The Common Experience of Reform in Socialist Countries" Journal of Economic Perspectives, Vol. 4, No. 3, pp. 131-147, Summer.

Kumar, Manmohan S. (1984) Growth, Acquisition and Investment, Cambridge University Press, Cambridge, U.K.

Lipton, David and Jeffrey Sachs (1990a), "Creating a Market Economy in Eastern Europe: The Case of Poland", Brookings Papers on Economic Activity, No. 1, pp. 75-147.

_____ (1990b), "Privatization in Eastern Europe: The Case of Poland", Brookings Papers on Economic Activity, No. 2, pp. 293-341.

Nove, Alec and D.M. Nuti (1972) Socialist Economics: Selected Readings, Penguin.

Osband, Kent (1989), "Economic Crisis in a Reforming Socialist Economy", mimeo, The Rand Corporation.

Portes, Richard and D. Winter (1978), "The Demand for Money and for Consumption Goods in Centrally Planned Economies", Review of Economics and Statistics, 60, pp. 8-18.

Shleifer, Andrei and Robert Vishny (1986), "Large Shareholders and Corporate Control", Journal of Political Economy, Vol. 94, No. 3, June, pp. 461-488.

Tirole, Jean (1991), "Privatization in Eastern Europe: Incentives and the Economics of Transition", mimeo., MIT.

Wiles, Peter (1977) Economic Institutions Compared, Wiley, New York.

Wilhelm, John (1990), "Crisis and Collapse: What are the issues", Soviet Studies, Vol. 42, No. 2, April, pp. 317-327.