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Privatisation and market structure in a transition economy

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Abstract

A model is developed in which an industry of $N \geq 1$ firms is privatised. The 'participation' method of privatisation is used, whereby firms are sold for cash, but the state retains a proportionate share of ownership. In each firm the new private owner has the opportunity to make a reorganisational investment, before output is produced. This investment is unobservable by the state, and therefore non-contractible. There is Cournot competition in the product market. The welfare-maximising retained ownership share for the state is analysed, taking into account that potential buyers of firms may have limited access to finance. © 2000 Elsevier Science S.A. All rights reserved.

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1. Introduction

In the transition economies of Central and Eastern Europe and the former Soviet Union privatisation has taken place by a variety of methods (see, for example, Estrin, 1994; Brada, 1996). Following the lead of the Czech Republic and Russia, the most common method (used or proposed) has been voucher, or mass,

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privatisation. However, Germany, Hungary and Estonia have relied heavily on privatisation by sale, with foreign investors playing a major role in the latter two countries. Moreover, from 1995 onwards the Czech and Slovak Republics, Russia and several other countries switched emphasis to privatisation by sale (EBRD, 1996b). In many of these privatisations the state has kept a significant share in the ownership of firms, while giving up all managerial control (see Perotti, 1995, on the Hungarian case). This 'participation' model of sale, which is the subject of the present paper, has been forcefully advocated by Sinn and Sinn (1993) and Bolton and Roland (1992). It has also been analysed formally by Demougin and Sinn (1994), on whose work we build. In this model, privatisation is undertaken with two objectives in mind: to bring about investment in the modernisation of firms and to generate revenue for the state.[1] The investment is required because of decades of poor technological and organisational achievement under Communism, while state revenue is a critical factor largely because profit tax revenue has collapsed at the same time as some spending needs (for example, for the provision of a social safety net) have risen substantially.[2]

Unlike Demougin and Sinn, who focus on risk-sharing, we do not allow for uncertainty. This simplification allows us to introduce several other considerations into the analysis. First, in previous theoretical work it does not seem to have been taken into account that the firms being sold may compete against one another in the product market. Yet, both the amount that a buyer is willing to pay for a firm and the willingness of the buyer then to invest in the reorganisation of the firm will depend on how competitive the product market is. In our model this is recognized by supposing that an industry of N firms is being privatised, where $N \geq 1$. The buyer of each firm is assumed to make an investment in its reorganisation before production takes place, after which firms play a Cournot production game.

Second, we assume that investment by the new private owner of a firm involves the allocation of resources in a way that may be unobservable and non-contractible. In contrast, Demougin and Sinn assume for most of their analysis that there is contractibility, with the amount of investment the buyer will make specified in the contract when the firm is bought. This corresponds to the investment targets that were set for buyers of German SOEs and which have more recently been specified in Estonia and the Slovak Republic (EBRD, 1996b). However, as Demougin and Sinn point out, a government will be unable to observe the real cost to a company of transferring managerial know-how to an acquired firm, for this depends on the managers' alternative occupations. In our model the amount of investment is chosen freely by the buyer and may not be observable to outsiders. Hence, we

[1] A major economic objective of privatisation that we do not consider is change in corporate governance and/or managerial motivation. Also, we ignore political objectives such as to make the reform process irreversible. See Estrin (1994) and Dewatripont and Roland (1996).

[2] See Blanchard (1994) and Coricelli (1996). EBRD (1997) reports a negative general government balance in 1996 for 27 of 28 transition economies it covers.