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Are some owners better than others in Czech privatized firms? Even meta-analysis can't make us perfectly sure

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ABSTRACT

We use a total of 1171 estimates extracted from 34 previous studies and perform a meta-analysis to examine the relationship between ownership structures and firm performance in Czech mass-privatized firms. We find that, in contrast to the remarkable effect of foreign ownership on firm performance and restructuring activities, domestic private entities were incapable of out-performing the state as owners of Czech companies. Our assessment of publication selection bias, however, indicates that the collected estimates do not contain genuine evidence for many types of corporate ownership. Further development and improvement in this study area are necessary to capture the true effect. Finally, we also point out the importance to draw (meta-analysis) inferences based on studies that employ adequate methodology.

1. Introduction and motivation

At the beginning of the transformation process in Central Europe, privatization was largely considered to be the foundation of the entire transition process. The so-called Washington Consensus emphasized privatization and the belief that private ownership together with market forces would guarantee efficient economic performance. However, it was also often recognized that privatization on its own might not be sufficient, and that systemic changes and policy reforms were a prerequisite for successful transition. The transfer of ownership rights was seen by most academics and policymakers as crucial for the efficient allocation of resources and economic growth (Estrin et al., 2009).

Hence, based on the principal motivation above, in this paper we aim to shed light on how the transfer of property rights via privatization affected the performance of firms in the Czech Republic. Our goal is to provide a comprehensive picture through a meta-analysis performed by employing the empirical results of academic research carried out over more than two decades.

Our meta-analysis is unique in that we cover the impact of privatization in a single country and concentrate on microeconomic effects.[1] In this way, we are able to account for various institutional and other relevant factors that otherwise differ among countries. Further, the meta-analysis is performed in such a way as to account for the impact of differences in methodological standards.

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[1] For this reason, we do not include in our meta-analysis (otherwise excellent) studies with international coverage that do not provide any exclusive estimates of foreign ownership on the performance of Czech firms; i.e., we do not include Damijan et al. (2015, 2017), among others.

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Specifically, in our meta-analysis we cover all available literature but also investigate the possible influence on empirical results caused by neglect and/or insufficient treatment of the endogeneity between ownership structure and firm performance; our approach is grounded in the sparse evidence about how problematic this issue is from the meta-analysis perspective.[2]

Besides the above, our meta-analysis is further motivated by specific questions. Based on the large number of studies in hand, do the reported effects of various ownership categories genuinely represent reality? Is there great heterogeneity in the outcomes among the studies? If there exist differences in the impact of ownership categories, are these differences (statistically) significant, or don't they matter? How important are the differences due to heterogeneity among studies in terms of numerous factors relevant to specific studies? Further, are the reported effects sensitive to the research quality with which specific studies were executed? Finally, how are the reported impacts affected by the course of the publication process (publication selection bias)? These questions are less then trivial and cannot be answered without being transposed into formal hypotheses that we introduce and test by appropriate techniques, as outlined in Section 3.

We show the remarkable effect of foreign ownership on firm performance and, at the same time, see that domestic private entities were incapable of outperforming state ownership of Czech firms. We also document a highly significant impact of insider ownership that is likely produced by specific research conditions other than ownership type in relevant studies. Hence, we should be cautious—we detect a strong publication selection bias, and because of that, we are unable to capture the true effect of many types of ownership categories in privatized Czech firms.

The paper is structured as follows. We intentionally abstain from presenting a formal literature review in a separate section. First, a thorough and condensed account of the literature on the effects of privatization and ownership on firms in transition countries can be found in Estrin et al. (2009). Second, we cover additional relevant literature in Section 2, where we provide a necessary outline of the privatization process in the Czech Republic, along with other related issues pertinent to our analysis. Third, information on individual studies that constitute the grounds for our analysis is reviewed in Section 3, which also introduces the tools of the meta-analysis used in our study. In Section 4, we convey the results of the meta-analysis, while in Section 5 we assess the extent of the publication selection bias. In the last section, we offer conclusions and policy-related interpretations.

2. An overview of Czech privatization and other relevant issues

A massive privatization program was administered in the Czech Republic in the first half of the 1990s under three different schemes: restitution, small-scale privatization, and large-scale privatization. By far the most important scheme was large-scale privatization—beginning in 1991, it was completed in early 1995 and allowed for various privatization techniques. Small firms were usually auctioned or sold in tenders. Many medium-sized businesses were sold in tenders or in direct sales to predetermined buyers. Most large and many medium-sized firms were transformed into joint stock companies, and their shares were distributed through voucher privatization (almost one-half of the total number of all shares of all joint stock companies were privatized in the voucher scheme), sold in public auctions or to strategic partners, or transferred to municipalities.

The voucher scheme was part of the large-scale privatization process; similar voucher schemes with various modifications were conducted in several European countries during the early stages of their transition process.[3] Two waves of voucher privatization took place, in 1992–93 and 1993–94.[4] Both waves were administered in the same manner as a massive, multi-round auction, and there were no differences in their setups. During the scheme, a total of 1664 firms were privatized, 988 in the first and 676 firms in the second wave; of this number, 185 firms were privatized in both waves with various asset proportions.

Any Czech citizen over the age of 18 who resided in the Czech Republic could participate in the voucher process. For each wave, every eligible citizen was authorized to buy a voucher book that contained 1000 investment "points" for 1000 Czech crowns (CZK), about a week's wage. With these points, individuals could place their auction bids for shares in would-be privatized firms. Alternatively, individuals had the option of assigning some or all of their points to Privatization Investment Funds (PIFs), newly established financial firms whose scope of activities was vaguely similar to that of closed-end mutual funds, before privatization started.[5] As a summary, Table 1 shows the basic figures related to the two-wave process of voucher privatization.

The bidding rounds in each privatization wave continued until the privatization authority declared the end of the wave when a negligible proportion of unsold shares, along with disposable investment points, remained. The final stage of voucher privatization was the real transfer of purchased shares. For each participant, a share account was created at the Central Register. Those individuals who allocated part or all of the 1000 points to PIFs obtained shares of the PIFs immediately after issue. Shares of firms obtained by individuals during the bidding process were traded on the capital market after the end of the privatization scheme. Table 2 presents

[2] By following the described approach, we avoid the kind of selection bias that meta-analysts criticize heavily today. Hence, in the first step we do not eliminate studies that do not account in a proper way for the endogeneity of the ownership structure with respect to corporate performance. In the second step, we do so.

[3] It is interesting to note that, despite the fact that the concept of the voucher scheme was conceived in Poland even before the transition began in most European countries, Polish authorities were relatively late in conducting the voucher scheme themselves. A version of the voucher scheme was implemented in Poland only in the summer of 1995. A general outline of mass privatization using vouchers emerged in 1988, and a description of the method was published by Lewandowski and Szomburg (1990). Lewandowski (1997) wrote: "Mass privatization was a unique response to the post-communist challenge. The idea of distributing vouchers to promote equitable popular participation in privatization was elaborated by market-oriented advisers to the Solidarity movement in Gdansk, Poland, in mid-1988. Vouchers were intended to make up for insufficient supply of capital; as a special type of investment currency, they would be allocated to all citizens and tradable for shares of privatized companies. The concept was presented at a conference in November 1988—when communists were still in power—in response to a solicitation for proposals on how to transform the Polish economy."

[4] The first wave was administered jointly in the Czech and Slovak Republics, since Czechoslovakia only split into two independent nations in 1993.

[5] See Hanousek and Kočenda (2008) for details regarding regulation, investment restrictions, and other PIF issues.