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# Ownership change, institutional development and performance

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ABSTRACT

This paper conducts a cross-country empirical study of the impact of institutions and agency conflicts on ownership reforms and their implications for changes in performance and efficiency. We examine two main questions. First, we evaluate the effects of certain property rights and institutional quality measures on performance and efficiency. We find that property rights and contracting rights protections contribute to stronger post-privatization performance. Second, we ask whether sectors undergoing changes from state to private ownership exhibit better or worse performance than sectors remaining public. We find an insignificant effect of privatization in ordinary least squares estimates and a negative short-term effect after correcting for endogeneity of privatization decisions that disappears in the long run, consistent with recently privatized enterprises facing short-run costs of restructuring and the challenges of mitigating agency and expropriation concerns.



## 1. Introduction

In the eighties and early nineties policy makers and academics endorsed privatization reforms that have since been conducted in many developed and emerging market countries. More recently attention has shifted to the varying outcomes of privatization programs, some of which were implemented with little to moderate success and enveloped in accusations of nepotism and expropriation of property rights. Separately, law and finance research has highlighted the role of institutions for capital market development and firm performance (for example, La Porta et al. (1998) and subsequent work). In an earlier paper, we have examined the effects of access to capital on the performance of privatized enterprises (see Knyazeva et al., 2009). In this paper we focus on the performance and efficiency implications of property rights in the context of the outcomes of privatization reforms. Our methodology addresses crucial selection concerns inherent in the analysis privatization decisions. In addition, we conduct a telecom industry study to evaluate alternative dimensions of operating efficiency and analyze the effects of property rights on the attributes of the actual privatization. We conclude with a discussion of policy implications for the design of privatization reforms.

First, we examine the determinants of post-privatization performance focusing on the role of institutions and accounting for self-selection into the privatization group. We hypothesize that property rights protections are instrumental to post-privatization performance as they both protect recently privatized firms against government expropriation and enhance new owners' incentives to restructure the firm and create strong intra-firm monitoring mechanisms. We find significant positive property rights effects on operating performance. A one standard deviation increase in the index of property rights protection against expropriation is associated with up to 1.3% higher average profitability. Although selection bias is statistically significant, the property rights effect remains qualitatively similar after we account for self-selection into the privatization group.

In addition to the protection of private property rights against expropriation by the government, the strength of contracting rights and the effectiveness of the legal system that affects interaction with private counterparties post-privatization are also important for post-privatization profitability. For instance, a one-standard deviation (0.71) decrease in legal formalism (that boosts contracting rights by easing contract enforcement) has a 1.45 percentage point positive effect on profitability.

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While political stability and government effectiveness have a generally favorable effect, most political institutions measures do not significantly affect post-privatization performance. Profitability after privatization is most directly tied to the protection of private investors against expropriation and better enforcement of contractual rights.

Second, we test whether recently privatized sectors outperform public sectors, controlling for institutions and other characteristics as well as the endogeneity of privatization. On the one hand, privatizations can improve performance and bring about efficiency gains generated due to removal of ill-incentivized government administration and introduction of private owners motivated by value creation. On the other hand, the privatization process imposes costs and tradeoffs that may limit profitability in the short run (direct restructuring costs, the challenges of managing intra-firm incentive conflicts and the risk of expropriation of the newly private enterprise by the government, as well as adjusting to the removal or reduction of government subsidies offered to formerly state-owned enterprises). Moreover, with inadequate corporate governance laws, management may "tunnel" the resources of the firm for their own purposes. Empirically, we find that governments are more likely to privatize firms that perform well, biasing traditional tests of performance effects of privatization. Although the privatization group performs well on average, after correcting for endogeneity, we find that privatizations exhibit weaker performance relative to public sectors in the short run. The findings highlight the importance of recognizing endogeneity and the nontrivial performance challenges facing newly private enterprises in a framework with agency and expropriation costs. The tradeoff is most pronounced for enterprises that enjoyed subsidies prior to privatization. They experience negative effects for up to 10 years. In the long run, the effect becomes insignificant.

Third, we examine characteristics of privatization transactions. We find significant evidence of matching of acquirers and privatization targets based on the institutional environment quality. This suggests that, as with cross-border acquisitions in general, institutional compatibility of buyers and targets is an important consideration in privatization deals; that is, countries with strong property rights (as reflected in our measure) look for and seem attractive to firms in countries with strong property rights. In addition, strong property rights in the privatization target country are associated with a lower likelihood of diversifying deals (that is, deals in which the acquiring firm buys a firm in a different industry), deals with foreign buyers, or employee buyouts.

The rest of the paper is organized as follows. Section 2 develops hypotheses and testable predictions, discusses existing literature, and summarizes the contribution of our study. Section 3 discusses data, variables, and methodological issues due to endogeneity and selection bias. Section 4 presents the main empirical results and robustness analyses. Section 5 concludes.

## 2. Hypotheses

### 2.1. Hypotheses and empirical predictions

#### 2.1.1. Property rights in the privatization country and post-privatization performance

The main question of interest is the role played by the property rights environment and institutional quality in post-privatization performance (within the privatization sample). We hypothesize that the quality of the institutional environment is a significant determinant of performance following privatization and we expect better performance of privatized sectors in the presence of good institutions. Like other privately owned companies, recently privatized enterprises are now exposed to government rent-seeking, through direct expropriation of cash flows or assets, the corruption 'tax' and related property rights risks (for instance, recently privatized enterprises are especially vulnerable to a complete asset seizure, should the privatization be opportunistically reversed). Later, we will explain why our measure of "property rights" actually is a proxy for certain aspects of institutional quality—that get reflected not just in the performance of private companies subject to expropriation risk, but also in that of public enterprises. Besides permitting private owners to invest efficiently by limiting government expropriation, strong property rights protections also encourage them to adopt a long-term view and establish robust monitoring mechanisms aimed at resolving intra-firm agency conflicts. Therefore, the new owners' incentive to design adequate monitoring mechanisms, as well as fire entrenched insiders and hire and retain better management, is stronger if overall institutional quality is good.[1]

Stronger "institutional quality" not only protects against government expropriation, but also against private abuses associated with inadequate corporate governance (e.g., tunneling). Similarly, private sector efficiency requires the enforcement of contracts. While there are many details of the institutional and legal regime that matter, we have data only on overall assessments of certain attributes of the legal system. We set aside these crucial distinctions, to hypothesize that property rights (or broader measures of institutional quality) have a positive effect on post-privatization performance among privatized enterprises.

Further, we ask whether there are spillover effects of property rights in the buyer country on the performance of the privatized enterprise. This unanswered question is important for two reasons: (i) international buyers are often involved in privatization transactions; and (ii) the buyer is likely to become heavily involved in any restructuring that will occur within the privatized enterprise after privatization. Additionally, strong property rights in the buyer country may cause spillovers and become consequential for post-privatization performance of the privatized enterprise. As a caveat, institutional quality as reflected in our metrics in the country of the acquirer may affect the organizational performance of the acquiring company – and thus the performance of the privatized company; or it may be correlated with other attributes (e.g., the quality of the education system). Our analysis does not enable us to distinguish among these alternative hypotheses.

#### 2.1.2. Performance in the privatization versus government-owned groups

We compare performance within the sample of industries in which there has been a privatization to that of the sample remaining public. A common argument is that privatizations remove obstacles to proper resource allocation posed by government control and facilitate the dismissal of poorly motivated government-appointed managers whose objective function is vastly different from value maximization. Thus, privatization reforms can jump-start performance improvements in formerly state-owned enterprises (SOEs). By comparison, sectors that remain public continue to lag behind, exhibiting incrementally worse performance due to ongoing investment inefficiencies and agency costs, resulting in the empirical prediction that privatized sectors outperform sectors remaining in government ownership. (In our earlier paper, we provided another reason for improved performance: in cases of governments facing severe budget constraints, there can be an underinvestment in publicly owned enterprises, which is corrected under private ownership.)

[1] Good institutional quality also contributes to greater effectiveness of the privatization process, whereby buyers with the highest valuations become the new owners, helping maximize efficient allocation of resources in newly private firms.