

The Political Economy of Residual State Ownership in Privatized Firms: Evidence from Emerging Markets*

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Abstract

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Abstract

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1. Introduction

Privatization can be defined as the deliberate sale by a government of state-owned-enterprises (SOEs hereafter) or assets to private economic agents. This shift of ownership – and control – to private economic agents creates a change in the prevailing incentive structures and puts greater emphasis on profits and efficiency (Boycko et al., 1996; Shleifer and Vishny, 1997). The literature provides strong evidence on the dividends of privatization and the benefits derived from private ownership as compared to government ownership (e.g., Megginson et al., 1994; Boubakri and Cosset, 1998; Boubakri et al., 2005a,b; D’Souza et al., 2005).¹ The available evidence also suggests that performance is negatively related to the government’s continued role in companies. For example, Boubakri and Cosset (1998) and Boubakri et al. (2005b), in their research on a set of emerging markets find that there is greater improvement in performance after privatization is greater when the government relinquishes its control rights. These conclusions are echoed by Chhibber and Majumdar (1999) who find that privately owned firms in India are more efficient than those under mixed-ownership and those run as SOEs. In this regard, Boycko et al. (1996) stress the importance of transferring control rights to private agents in order to ensure successful privatization, echoing Shleifer and Vishny (1994) in their theoretical conjecture that when politicians maintain control over firms, privatizing cash-flow rights will only reduce efficiency and increase corruption.

Based on these arguments, a rapid transfer of ownership and control – along with full privatization – is desirable. Yet, in practice, privatization evolves differently. Instead of totally diluting their ownership, most governments divest slowly and partially (gradually), especially in developing countries, as shown by Boubakri et al. (2008a) in their evaluation of the privatization experience of these countries between 1988 and 2005. Boubakri et al. (2005a) also provide direct evidence of the phenomenon by describing the evolution of post-privatization ownership structure in a multinational sample of 209 firms, mostly from emerging markets.

¹ Refer to Megginson and Netter (2001), Denis and McConnell (2003), and Megginson and Sutter (2006) for an extensive review of the literature.

They report that, while privatization did lead to a drastic change in the ownership structure of SOEs, this transfer of ownership is mainly conducted through partial, staggered sales. A thorough country study by Gupta (2005) illustrates this trend in India, where most privatization transactions are partial sales that leave the government in control. In a comprehensive study of particularities of the privatization experience in China, Fan et al. (2007) indicate that the government is prohibited from selling its controlling stake in SOEs, which are thus privatized gradually by selling shares to minority investors.²

A possible rationale for this evidence of continued government influence following privatization is provided by the theoretical model of Perotti (1995) who argues that partial privatization can signal government's commitment to market-oriented policies. By relinquishing their control rights, governments want to signal that privatization is credible and implies no policy risk (i.e., risk of interference in the operations of newly privatized firms (NPFs) thereafter, either through regulation or renationalization). Also, by retaining residual ownership, the government signals its willingness to share his policy risk. According to Perotti's (1995) model then, partial privatization is a political choice. As such, it depends on the characteristics of the government in place, hence on political institutions. This conjecture is developed by Biais and Perotti (2002) who model the privatization design of a committed government and find that right-wing governments, whose objective is to ensure their re-election, signal their commitment to the median voter through partial privatization and underpricing. Consistent with the predictions of the models proposed by Perotti's (1995) and Biais and Perotti's (2002), Jones et al. (1999) show that the terms of share-issue privatizations (i.e., share allocation and share pricing) are structured to achieve political and economic objectives.

² Unlike partial privatizations in India which did improve performance despite continuing post-privatization government control, Fan et al. (2007) show that continuing government influence through political connections in China's partial privatizations is detrimental to performance. Importantly, the authors conclude that: "... the evidence from China is useful to emerging economies around the world that have weak legal systems and weak property rights protection. These countries can learn from the experience of China's partial privatization that a government's reluctance to relinquish (or its desire to retain) even only a subset of its property rights with regard to its enterprises can have significantly negative consequences on corporate governance and firm performance." Fan et al. (2007: 353).

The purpose of this study is to determine how political institutions influence the post-privatization control structure of firms in a large set of emerging markets. Our analysis is thus stays at the firm level, which complements existing evidence on the political underpinnings of the privatization reform at the country level (Bortolotti et al., 2003), or focused on a wide set of industrialized countries (e.g., Bortolotti and Faccio, 2009). Our analysis consists in two steps. First, we examine the means of residual control used by privatizing governments, namely direct ownership, ultimate ownership, golden shares, and political connection.³ While most studies documenting post-privatization ownership focus on first level (direct) ownership, recent research brings to light the importance of distinguishing between direct and ultimate ownership, showing that control is often held by major shareholders (e.g., the state, families), even when they own few cash-flow rights (e.g., La Porta et al., 1999; Claessens et al., 2000; Faccio and Lang, 2002). Assessing residual state ownership in this fashion allows us to differentiate more accurately between credible (control) privatizations and cosmetic (revenue) privatizations. Bortolotti and Faccio (2009) adopt this approach and show, for a sample of NPFs from OECD countries, that companies remain connected to the government through such devices as golden shares. In contrast to the evidence reported in Bortolotti and Faccio (2009) for OECD countries, we fail to find any significant difference between direct and ultimate ownership by governments. The evolution of residual state ownership over a window of up to six years shows a significant decline. The speed of relinquishing control seems to differ across industries and geographical regions. For instance, the state remains a major shareholder in strategic industries such as petroleum and utilities in both Latin America and the Caribbean. The method of privatization is also correlated with residual state ownership; for instance, share issues on the stock market allow governments to implement more gradual divestitures. We also find that governments tend to retain indirect control over NPFs through political connections (30.3% of our sample firms), and less frequently through golden shares (7.3% in our sample firms), which contrasts with the features of the OECD sample of firms in Bortolotti and Faccio (2009), who document that 62.5% of these firms have golden shares (in 1996).

The second part of the analysis focuses on the impact of political governance on the post-privatization control structure. More specifically, we assess how political constraints and

³ Golden shares are defined as in Bortolotti and Faccio (2009) and political connections as in Boubakri et al. (2008). Please see Section 3.2.1.

institutions influence the government's decision to relinquish or maintain control, and the extent of residual ownership in the post-privatization period. Motivated by prior research, we conjecture that as a redistributive policy, privatization is politically costly, and is hence necessarily constrained by the power of the executive and the strength of checks and the number of veto players in the political system. Our multivariate analysis, which controls for other potential factors influencing the privatization design and corporate ownership structure, shows that the decline in state ownership is indeed explained by the political environment in the country: for instance, government tenure (number of years in office), political cohesion and the political system are strong determinants of the residual state ownership in NPFs. These results are robust to specifications using an alternative measure of post-privatization control structure, additional control variables pertaining to the quality of the extra-legal environment, and alternative measures of political constraints. Collectively, these results show the importance of controlling for both the political environment and the legal infrastructure that prevails in the country when assessing the corporate governance of NPFs.

Our paper makes several contributions to the literature. *First*, available studies on the political determinants focus mostly on the macro level of the privatization process and its design or on specific industries (e.g., banking). For instance, Banerjee and Munger (2004) argue that the timing, pace, and intensity of privatization observed in a country are primarily determined by political gains and that privatization is shaped by political considerations. More recently and closer in spirit to our analysis, Bortolotti and Pinotti (2003) conduct a panel type country-level investigation of the privatization determinants for 21 advanced economies. They show that the likelihood and the extent of privatization are strongly and positively associated with majority-rule political systems. The authors' attempt to characterize the political determinants of privatization is innovative. However, their study focuses on a partial aspect of the decision making process that surrounds the design of privatization (i.e., the decision to privatize) and considers a specific group of countries (i.e., advanced economies). Therefore, these results cannot be generalized to emerging markets where we observe a wide diversity of political preferences stemming from embedded ethnic, regional, and religious considerations are imbedded. In addition, the literature still lacks a full understanding of how politics determine the extent to which control is relinquished at the firm level, in a multi-industry setting. In our paper, we switch the emphasis to *firm-level* corporate governance. In another

closely related study, Boehmer et al. (2005), examine how political, institutional, and economic factors affect the decisions about if and when (timing) state-owned banks should be privatized, for a panel of 101 developed and developing countries over the 1982-2000 period. The authors show that whereas economic factors guide decisions to privatize banks in both developing and developed countries (OECD), political factors are relevant only in developing countries. It is this difference which motivates our focus on non-OECD countries. To be specific, what we do is extend their study in two ways: by focusing on the firm-level post-privatization control structure rather than on the decision to privatize and the timing of privatization and by using twelve industries rather than a single industry sector (banking).

Second, our study tests hypotheses related to two strands of literature, one being the political economy of privatization (e.g., Perotti, 1995; Biais and Perotti, 2002), and the other being the political determinants of corporate governance (e.g., Roe, 2003; Pagano and Volpin, 2005). The first two studies complement each other and maintain that credible privatization and government commitment to market-oriented policies can be signaled by partial privatization (Perotti, 1995), and that committed governments are typically right-wing oriented (Biais and Perotti, 2002). Pagano and Volpin (2005) examine the political determinants of corporate governance at the country level, while Roe (2003) adopts a firm-level approach and argues that ownership structure (and ownership concentration) is determined by the political environment of the firm, rather than by prevailing legal institutions. The political view of finance advanced by Roe (2003) holds that there is a strong correlation between the nation's political orientation (particularly towards democracy) and its corporate ownership structure.

Third, recent cross-country studies (e.g., Boubakri et al., 2005a; Guedhami and Pittman, 2006) show that post-privatization ownership structure (i.e., private ownership concentration) is shaped by the quality of the country's prevailing legal institutions. We extend this research by showing that a country's prevailing political institutions explain post-privatization ownership structure over and above the role and power of its legal institutions.

Finally, our focus on the privatization experience in emerging markets complements the evidence Bortolotti and Faccio (2009) draw from their documentation of the determinants of the control structure of OECD-country NPFs for the years 1996 and 2000. At this stage, our investigation is particularly relevant seeing how the privatization dynamics, the political

environment, and the legal framework in these emerging markets differ from those prevailing in OECD countries.⁴ Unlike Bortolotti and Faccio (2009), who consider two years of data (1996 and 2000) for all privatized firms independently from their first year of privatization, we examine the years immediately following privatization, where the influence of political factors is most likely to be strong.

The remainder of the paper is structured as follows. Section 2 reviews prior literature and discusses the relation between privatization design and political institutions. Section 3 presents the data and the variables used in the study. Section 4 documents the post-privatization evolution in ownership structure and investigates its determinants. Section 5 summarizes our findings and concludes the paper.

2. The Political economy of government ownership

Our study builds on the theoretical model of Shleifer and Vishny (1994): The authors show that politicians are better off when they have control rights because control gives them better “bargaining opportunities,” to win votes through excess employment (political benefits) and bribes.⁵ In such a setting, the authors question why rational politicians would ever agree to privatization. The answer is that whether politicians want firms to be private or public depends mainly on their ability to get tangible political benefits out of public ownership, defined as “effective transfers to politicians from their political competitors.” Shleifer and Vishny (1994) describe several sources of political benefits that make politicians unwilling to give up control over public firms: for example, most public enterprises are pressured by vote-seeking politicians to employ too many people. Public enterprises often produce goods desired by politicians rather than by consumer (one example of such goods is the Concorde supersonic aircraft, as discussed in Shleifer and Vishny, 1994). Public enterprises are also often asked to locate their production in politically desirable rather than economically attractive regions. Finally, public enterprises charge prices significantly below marginal costs to win political

⁴ For a thorough discussion of the privatization experience of developing countries, see Megginson and Sutter (2006).

⁵ Shleifer and Vishny (1994), for instance, discuss the case of politicians that would rather retain control (through nationalization) over money-losing firms (with no value to shareholders), that might otherwise go bankrupt. Keeping such firms alive would secure the votes of their employees (political benefits), who would otherwise be fired upon bankruptcy.

support. To explain why some politicians would give up control, Shleifer and Vishny (1994) introduce “taxpayers interests,” on the grounds that politicians who are more responsive to taxpayers will be relatively more active privatizers. This view implies that “privatization usually occurs when conservative governments, favored by taxpayers, replace leftist governments, favored by public employees (or democratic governments replace communist governments)” (Shleifer and Vishny, 1994:1022).

In a political economy framework, the control divestment decision is determined by the trade-off between the political benefits and costs of such a decision: the immediate costs of privatization are generally the political costs of redistribution which often spark discontent and opposition and hence a loss of voters. In contrast, the prospective benefits of privatization in terms of improved corporate efficiency will occur only in the future. Therefore, privatization will take place when the current value of political benefits from future efficiency gains is higher than the immediate political costs of redistribution. In such instances, privatization is likely to be implemented gradually (Banerjee and Munger, 2004).

Based on descriptions of privatizations in several countries, Perotti and Guney (1993) do indeed show that sales of ownership are generally gradual and staggered. They state that as the policy becomes more credible, initial sales will tend to expand and revenues from privatization will rise over time. In addition, they document that even when governments seem willing to privatize, they set up mechanisms such as golden shares and veto rights that give them ultimate control over several corporate decisions. Based on a sample of 205 privatized firms mainly from developing countries, Boubakri et al. (2005a) confirm this point. Indeed they document that the average government stake declines substantially after privatization. Boubakri et al. (2005b) describe the post-privatization ownership structure of 230 privatized firms from 32 developing countries. They find that government retained ownership is higher in Asian countries than in African, Latin American, and European countries.

Overall, the available evidence thus shows that, in practice, privatization is gradual, and that governments often retain control over the firms. Perotti (1995) constructs a theoretical model to provide a rationale for this phenomenon and shows that gradual sales are used by governments to signal their commitment to the privatization policy and to establish confidence in their policy choices. To the extent that governments are unable to perfectly

signal their commitment to future policy (and hence diminish the resulting uncertainty for investors), Perotti (1995) shows that retaining participation will be optimal as a signal of commitment. His model is based on two types of governments: committed or populist. A populist government is associated with high post-privatization interference (higher policy risk), and with using privatization to raise money (revenue privatization). In contrast, a committed government is associated with low interference and with using privatization for its micro- and macro-economic benefits (ideology-driven). According to Perotti's (1995) model, a committed government will retain a passive stake in the privatized firm to show its willingness to bear residual risk and thus its commitment. In contrast, a populist government will be reluctant to engage in partial sales mainly for fear of incurring revenue losses if its true identity is revealed in future sales.

Biais and Perotti (2002) also argue that building confidence and credibility (commitment) is important for the government if it wants to gain the support of the median voter in future elections. If the government is credible, there is no need for it to signal commitment and hence no partial sales or under pricing will be necessary. Biais and Perotti (2002) establish that politicians do in reality design privatization under political constraints. For example, right-wing (market-oriented) governments will design sales so as to attract the median voter. This type of right leaning voter is then more likely to oppose future (redistributive) policies by the left-wing. Thus, right-wing governments are more likely to privatize control and sell larger stakes.

In a nutshell, these studies suggest that there is a link between the political orientation of, and constraints on, the government, on the one hand, and the postprivatization control structure, on the other hand. Our main objective is to investigate this issue in the context of emerging markets. In what follows, we develop more formal hypotheses.

2.1. Political institutions and privatization: hypotheses

In this section, we examine how political institutions influence privatization designs, and more specifically the extent to which they relinquish control/ownership relinquishment in

NPFs. The political economy literature captures the political orientation of, and constraints on, the government through the following dimensions, among others:

Ideology of the executive: As previously discussed, according to Biais and Perotti (2002), right-wing governments are more committed than left-wing ones and are more likely to transfer control immediately (while selling ownership gradually), to signal their willingness to bear residual risk. According to the authors, right-wing governments are thus more likely to privatize control and sell larger stakes (i.e., lower residual government ownership).

H₁: Residual state ownership is positively (negatively) related to left-(right) wing governments

The political system (extent of political rights): Less authoritarian governments are more likely to put in place market-supporting reforms, and to change the incentives of rent seeking by politicians. In these governments, the political constraints (checks and balances) are higher and the power of veto players (voters and opposition) can delay or block reforms, while more authoritarian regimes (such as presidential) have the power to undertake reforms without such constraints. Thus, we expect to observe higher residual state ownership, and more staggered sales in less authoritarian governments.

H₂: Residual state ownership is related to the political system

Government tenure: Frequent changes in government make the implementation of reforms more difficult and increase the likelihood of policy reversals. Furthermore, when constantly under threat of losing office, governments may not be willing to introduce politically costly measures, such as privatization. For these reasons, we conjecture that unstable governments do not need to signal commitment or to make privatization credible and should not privatize gradually. As a measure of government tenure, one can refer to “years in office” which will proxy for the time that is required to build the necessary credibility to implement economic reforms (Cukierman and Leviatan, 1992). Two predictions can thus be made: if the government has been in power for some time and has already revealed its nature (committed) through prior reformist signals, it does not need to send further signals; we then expect to observe lower residual stakes when the number of years in office is higher (Banerjee and Munger, 2004). If, on the other hand, the government has just been elected and is at the beginning of its term, it will

likely need to signal credibility; we therefore expect privatization to be more gradual and residual state ownership to be higher at the beginning of the term.

H₃: Residual state ownership is negatively related to the number of years in office

Opposition: This refers to the strength of political opposition, and the degree of constraints within the government. A strong opposition (i.e., lack of political cohesion) means political actors fail to cooperate, which leads to sub-optimal economic policies. A strong opposition increases uncertainty regarding policy outcomes and the associated instability makes commitment incredible in this case (Knack and Keefer, 1995). The lack of political cohesion thus makes the government unwilling to undertake challenging policies of a distributive nature (Edwards and Tabellini, 1991). We thus expect to observe more gradual and hesitant privatization (a higher residual government ownership) in governments constrained by a strong opposition.

H₄: Residual state ownership is positively related to the degree of government opposition

3. Data and variables

In this section, we describe our sample, our empirical approach, and the variables analyzed.

3.1. The sample of privatized firms

Privatization in emerging markets provides an interesting setting in which to test our hypotheses on the importance of political institutions in explaining the control structure of privatized firms. We use a sample of 221 firms privatized in 27 emerging markets over 1980-2001 period.⁶ Our sample of privatized firms is mainly drawn from Guedhami et al. (2009). This database is unique and particularly suited to our research objectives as it tracks residual state

⁶ This sample compares favorably with multinational studies on privatized firms: Megginson et al. (1994) with a sample of 61 firms from 18 countries, Boubakri and Cosset (1998) with a sample of 79 firms from 21 developing countries, D'Souza and Megginson (1999) with a sample of 78 firms from 25 countries, Dewenter and Malatesta (2001) with a sample of 61 firms from 8 countries, D'Souza et al. (2005) with a sample of 129 firms from 23 countries, Boubakri et al. (2005b) with a sample of 209 from 39 countries, and Guedhami and Pittman (2006) with a sample of 190 from 31 countries.

ownership in the years surrounding privatization (i.e., one year prior to privatization, the privatization year, and the next three years thereafter). We updated this database to include ownership data for six years after the first privatization as well as information on political connections and golden shares.

Table 1 shows that the 221 firms are located in different geographical regions as categorized by the *World Bank*.⁷ For example, 40.72% are from Africa and the Middle East, 21.27% from East and South Asia and the Pacific, 25.34% from Latin America, and 12.67% from Europe and Central Asia. The diversification across geographic regions is important, because it comprises countries with different legal, political and institutional environments and it thus sheds light on cross-firm differences in residual state ownership. Table 1 also reveals that the sample is diversified across industries, with 25.79% in the financial sector, 25.34% in the basic and petroleum sectors, and 16.29% in utilities. Further, 82.35% of the privatizations occurred in the 1990s (including 2000 and 2001), compared to 17.65% in the 1980s. These figures are largely drawn from the recent trend towards large-scale privatizations in emerging markets during the 1990s.⁸ Note that close to 74% of the firms were privatized through share issues while 26% were privatized through private sales. These private sales are implemented either through an auction or directly to private (local or foreign) investors.

Insert Table 1 about here

⁷ Our emerging markets sample countries are either “major” or “frontier” emerging markets (Emerging Markets Database). Our sample does not include firms from the ex-communist countries for two reasons. First, the legal systems in these countries are based on the Soviet law, and have gone through many changes in the transition period (La Porta et al., 2000). Second, the post-privatization ownership structure in these countries is mainly in the hands of insiders (managers and employees). Recent references on the experience of transition economies include Djankov and Murrell (2002) and Svejnar (2002).

⁸ When we examine the World Bank list of privatized firms, we find that 30.48% of the firms are from Africa and the Middle East, 17.08% from East and South Asia and the Pacific, 42.35% from Latin America, and 10.09% from Europe and Central Asia. We find that 20.52% of the firms are from the financial sector and 15.97% are utilities. In addition, 80% of the privatization transactions occurred in the 1990s. These figures are close to the ones discussed in the text in reference to our sample.

3.2. The variables

We define the variables used in our study in the Appendix. These variables can be classified in four categories: privatization and state control variables, political economy variables, legal variables, and firm- and country-level controls.

3.2.1 Privatization and state control variables

To investigate the control structure of our sample of privatized firms, we focus on the post-privatization ownership structure along the following dimensions: direct observable ownership, ultimate ownership, and other control mechanisms, namely golden shares and political connections. The ownership data were hand collected from two main sources: the offering prospectus and annual reports. We also used additional sources such as *Worldscope*; the Asian, Brazilian, and Mexican Company Handbooks, the Guide to Asian Companies; *Bankscope* and *Orbis*. Our sources of ultimate ownership data are Ben Nasr et al. (2009) for privatized firms, Faccio and Lang (2002) for Portuguese firms, and Claessens et al. (2000) for East Asian firms.

To assess the post-privatization government ownership, we construct the following variables: (1) *STATEOWN* refers to the residual government ownership stake (direct) following privatization. (2) *CONTROL* is a dummy variable that takes the value of 1 if the residual government ownership stake is greater than 50%, and 0 otherwise. (3) *STATE_ULTIMATEOWN* refers to the government ultimate control stake following privatization. To build *STATE_ULTIMATEOWN*, we use the approach described in La Porta et al. (1999) to determine the ultimate control structure of privatized firms. By relying on voting rights, this approach allows us to identify the ultimate shareholders. Indeed, the government may divest more than 50% of the privatized firm, but may still control the firm indirectly through a pyramidal ownership structure that involves other state-owned-firms. (4) *GOLDEN* is a dummy variable that takes the value of 1 if the government retains a golden share, and 0 otherwise.⁹ Even when

⁹ Following Bortolotti and Faccio (2009: 12), we define a golden share as “the set of the state’s special powers and statutory constraints on privatized firms. Typically, special powers include i) the right to appoint members in corporate boards; (ii) the right to consent to or to veto the acquisition of relevant interests in the privatized companies; (iii) other rights such as the consent to the transfer of subsidiaries, dissolution of the company, ordinary management, etc. The above mentioned rights may be temporary or

the privatizing government relinquishes direct and ultimate control over the privatized firm, it may impose limits on corporate control by retaining a golden share that puts significant constraints over the corporate decisions of the firm. This practice is common in several developed countries as documented by Bortolotti and Faccio (2009). In contrast, very few developing countries have put in place such devices (exceptions are Brazil and Malaysia). (5) *CONNECTED* is a dummy variable that takes the value of 1 if the firm is politically connected, and 0 otherwise. Political connections emerge if the firm has politicians-bureaucrats on its board, or if the CEO is a politician.¹⁰ In such a case, the firm will most likely benefit from subsidies, a soft budget constraint, and will not necessarily maximize profits, but rather will focus on the net political benefits for politicians. The government may be more likely to divest ownership and control if the firm is politically connected because politicians will pursue their objectives on its behalf. However, if the firm is not politically connected, the government might then have an incentive to privatize gradually and slowly in order to keep a hold on the firm's corporate decisions.

3.2.2 Political economy variables

We capture the political economy institutions with the following variables from the Beck et al. (2001) *Database of Political Institutions* (the World Bank):¹¹

The ideology of the executive is measured by a dummy variable *LEFT* that is equal to 1 if it is a left-wing government, and 0 otherwise. We distinguish between right- and left-wing governments on the grounds that right-wing governments are more committed. Banerjee and Munger (2004) assert that net political benefits of privatization increase when a right-wing executive is in power compared to left-wing or centrist governments. For a sample of firms privatized in OECD countries, observed in 1996 and 2000, Bortolotti and Faccio (2009) find that

not. On the other hand, statutory constraints include (i) ownership limits; (ii) voting caps; (iii) national control provisions."

¹⁰ Politically connected firms are defined as in Boubakri et al. (2008: 657)"... a company is politically-connected if at least one member of its board of directors (BOD) or its supervisory board is or was a politician, that is, a member of parliament, a minister or any other top appointed-bureaucrat."

¹¹ We chose this database because it covers a wide range of political variables and has a relatively better period coverage, which enables us to use observations that date back to the 1980s. Below we evaluate whether our results are sensitive to using alternative databases such as Botero et al. (2004) and Freedom House (2007).

partisan right-wing governments are associated with less government control. Alternatively, we use *LEFT POWER* that measures the percentage of years between 1975 and 1995 during which the party of the country's chief executive had a leftist political orientation, as derived from Botero et al. (2004).

The political system (extent of political rights) captures the type of political regime—more or less authoritarian – and the extent of checks and balances (*SYSTEM*). This variable is measured as an index of the system in the country: Direct Presidential (0); Strong president elected by assembly (1); Parliamentary (2). Given that authoritarian governments are generally expected to be less inclined to put in place market-oriented reforms, they need to build confidence and signal their commitment through gradual sales.¹²

Government tenure, which refers to the number of years in office (*YRSOFFICE*), is used to measure the time required to build credibility to implement economic reforms (Cukierman and Leviatan, 1992). A government that has been in power longer, has already sent reformist signals; it is thus more likely to undertake reforms, particularly redistributive reforms such as privatization.

Opposition measures the degree of opposition and constraints within the government (*OPPOSITION*). As discussed above, a high degree of opposition and the resulting failure of political actors to cooperate increase the uncertainty regarding policy outcomes. Governments are therefore less able to achieve a consensus regarding the design of privatization. In this case, we should observe a more gradual, hesitant privatization under governments that exhibit weak cohesion (i.e. stronger opposition, thus more fragmentation). In their sample of firms privatized in OECD countries, Bortolotti and Faccio (2009) find that proportional electoral rules (that capture political fragmentation) are associated with government control. We therefore expect *OPPOSITION* to be positively related to residual government ownership.

¹² A presidential system is considered as having a tendency to be authoritarian, as the executive presides over the legislature, with a strong separation of power. The parliamentary system at the end of the spectrum exhibits no clear-cut separation of power between the legislature and executive, and a higher power of checks and balances.

3.2.3 Legal variables

The legal variables include: the International Country Risk Guide assessment of the country's corruption (*CORRUPTION*), and (*COMMON*) a variable that identifies the legal origin of each country's company law or commercial code- available from La Porta et al., (1998). It takes the value of 1 for English common law economies, and 0 otherwise. We control for these variables as they have been previously shown to affect privatization design and outcomes. More specifically, privatization is more likely to succeed and deliver positive efficiency effects when investors' rights are well protected, hence in common law systems, and better law enforcement environments. Indeed, La Porta et al., (1999) and Bortolotti and Faccio (2009) link the common law countries with the pervasiveness of state ownership and the extent of the transfer of ownership of SOEs by privatizing governments. When corruption is high, law enforcement is weak, and investors are not effectively protected from bureaucrats' abuses. In these environments where investors lack confidence in the law system, there will be less demand for the shares of NPFs; we would thus expect the government to signal its credibility and commitment to market oriented reforms by privatizing small stakes in tranches. Thus, we expect residual state ownership to be positively related to *CORRUPTION* and negatively related to *COMMON*. Prior research shows that legal protection of investors is a material determinant of post-privatization performance improvements in performance (e.g., Boubakri et al., 2005b), ownership structure (e.g., Boubakri et al., 2005a; Guedhami and Pittman, 2006), and the choice of privatization method (e.g., Megginson et al., 2004).

3.2.4 Firm- and country-level controls

On the firm-level, we control for firm size (*SIZE*), profitability (*ROA*), and leverage (*LEVERAGE*). These controls have been used in prior studies to explain post-privatization ownership structures (e.g., Boubakri et al., 2005a; Guedhami and Pittman, 2006). The residual state ownership is expected to be higher in larger firms, in more profitable firms, and in those with lower leverage. Following Guedhami and Pittman (2006), we also control in all regressions for the level of economic development, which we measure with the natural logarithm of gross domestic product (GDP) per capita (*LGDPC*). Prior research suggests that more developed countries have more developed stock markets, which favors privatization and divestiture

through share issues to the public. We thus expect *LGDP* to be negatively related to residual government ownership.

4. Empirical results

The prior privatization literature is incomplete with respect to examining the control structure of privatized firms in emerging markets. Our study contributes to closing this gap by documenting in means and extent of control used by privatizing governments in emerging markets (sub-section 4.1), and by empirically examining how political institutions shape the post-privatization control structure of firms (sub-sections 4.2 and 4.3).

4.1. The control structure of privatized firms

4.1.1 Government first level (direct) ownership

In Table 2 we focus on government direct ownership, our main dependent variable. Panel A of Table 2 shows that the average stake held by the government one year before privatization is close to 83%. Upon privatization (year 0), this stake decreases sharply to an average of 38.25% and continues to decrease over time, but at a slower pace, to reach 35.84% in the sixth year after divestiture. The bulk of the change in the control structure of NPFs thus occurs in the year of privatization itself, the stakes divested thereafter are between 3% and 4% each year. This is consistent with the evidence in Boubakri et al. (2005a); six years after privatization, the government remains a significant shareholder in NPFs.

Panel B in Table 2 distributes residual state ownership by industry and reveals that by the sixth year, governments have on average fully (or close to fully) divested firms in finance/real estate and transportation sectors. But in utilities ownership divestiture is more gradual, and governments retain, on average, a 34.30% stake in utility firms even after six years.

Panel C shows that governments in emerging countries (from all geographical regions) are reluctant to implement full privatization. However, it is interesting to note that governments in East and South Asia and the Pacific retain direct control of privatized firms with an average stake of 52.20% after three years. In other regions, although governments also keep a significant stake in NPFs, even six years after privatization, their average stake is lower than 40% (37.86% for Africa and the Middle East and 27.54% for Latin America and the Caribbean).

Panel D indicates that the decrease in government ownership from one year before privatization to the year of privatization itself is far more pronounced in private sales than in SIPs (from 23.17% on average for private sales and from 44.17% on average for SIPs), confirming that direct sales to local or foreign investors usually involve an effective change in control. Over the three years following divestiture, the percentage change in the residual government ownership is higher in SIPs than for private sales, confirming again that the major change in control in private sales transactions indeed occurs at the time of sale, whereas SIPs allow for gradual sales of minority stakes.

Insert Table 2 about here

Table 3, which reports descriptive statistics for all variables, indicates that the state maintains a 33.5% stake in the average privatized firm. We also find that the state remains the controlling owner (keeping more than 50% of the shares) in 46% of our sample.

Insert Table 3 about here

4.1.2 Other means of government control

Ultimate versus direct ownership. In untabulated results, we test the differences between the state direct and ultimate ownership in NPFs. Using the ownership sources described above, we obtain ultimate ownership data for 36 firms and 133 firm-year observations in our sample. We find that the difference between state direct (41.6%) and ultimate ownership (46.3%) is not statistically significant whether we use parametric or non-parametric tests. Therefore, we cannot reject the null hypothesis of equality in means or medians. This finding runs counter to the evidence reported by Bortolotti and Faccio (2009) for OECD countries, where the government is the ultimate major shareholder in 62.4% of their sample firms, although most cash flow rights have been divested. In emerging countries, the observable government ownership is not significantly different from ultimate ownership, because most privatizations are gradual and do not involve a transfer of control rights. We thus run our regressions based on direct state ownership to maximize the number of usable observations.¹³

¹³ When we restrict the ownership data of Claessens et al. (2000) and Faccio and Lang (2002) to the same emerging countries used in our sample, we also find for a sample of 1,356 firms that the difference between ultimate and direct ownership of the largest shareholder in these countries is not statistically

Golden shares. The government can maintain its grip on NPFs by using indirect control devices such as Golden shares and political connections. Table 3 shows that 7.3% of our firms have a golden share. When we run a univariate analysis in Table 4 to compare *STATEOWN* in firms with and without golden shares, we find no significant difference in means (at conventional levels) in the state residual stake of both subsamples. However, these results should be interpreted with caution given that the number of observations of firms with golden shares is very limited.

Political connections. We next identify firms with political connections (politicians or bureaucrats on the board or as CEOs). Accordingly, Table 3 shows that more than 30% of our sample is connected. Our results are similar to those of Boubakri et al. (2008), who find that 35% of their sample of privatized firms is politically connected. In Table 4, we run a subsample comparison between the sample of firms that are politically connected and those that are not. We find that residual state ownership is higher when the firm is politically connected. The difference between both subsamples is significant at the 1% level. This suggests that political connections (indirect control device) and direct state ownership are not substitutes.

4.2. Descriptive statistics

In Table 3, we report descriptive statistics on our main variables. Our sample shows that 22.1% of the sample firms come from left-oriented governments, while 77.9% come from other types of governments. On average, governments have been in office a little over 10 years, but the most stable government has been in office for 46 years (King Hussein of Jordan, in 1999). The extent of opposition is on average 0.294, ranging from a low of 0.011 to a high of 1. Finally, 26.1% (73.9%) of our sample firms come from common (civil) law countries. In comparison, the sample of firms used in Bortolotti and Faccio (2009) includes 31.2% of firms from common law countries versus 68.8% of firms from civil law countries.

In Table 4, we report the results of some univariate tests. Residual state ownership seems to depend on our political variables, with the notable exception of the ideology of the executive (*LEFT*), in that there seems to be no significant difference between residual state ownership in

significant. This result suggests that the mechanisms of excess control rights over cash flow rights (pyramidal structure, dual class shares, etc.) are not well developed in our sample of emerging markets.

left- or right-oriented governments. This result runs counter to the findings in the political economy literature on privatization, including Biais and Perotti (2002), and empirical evidence from the OECD sample of Bortolotti and Faccio (2009).

We also find that residual state ownership is significantly higher when the government has been in power longer and when the degree of opposition in the government is higher. The differences between subsamples are significant at the 1% and 5% levels, respectively. *COMMON* is a measure of legal protection of minority shareholders against expropriation by insiders constructed by La Porta et al. (1998) and is based on the prevailing legal tradition. We observe higher residual state ownership in common law countries. This evidence indirectly confirms what has been previously documented by authors such as Boubakri et al. (2005a), who find that private ownership concentration is higher (and thus state ownership is lower) wherever investor protection is weaker, suggesting that ownership concentration substitutes for a weak institutional environment. Another aspect of the legal environment, namely the lack of legal enforcement measured by the extent of corruption (*CORRUPTION*), exhibits a significant and positive relation with residual state ownership, suggesting that governments tend to divest less when there is more political corruption in the country. The difference between the subsamples of highly corrupted versus less corrupt governments is significant at the 1% level. In less corrupt environments, the government keeps an average of 40% versus 50% in highly corrupt environments. We also find higher residual state ownership in more developed markets, which contrasts with the expectations discussed above. Finally, residual state ownership is significantly higher in more profitable, less leveraged and larger firms. All differences are significant at the 1% level.

Although these univariate tests provide strong preliminary support for our hypotheses on the impact of the political variables on residual state ownership, they detect only binary relations between variables. To control for the other potential variables, we extend our analysis and run a multivariate analysis below.

Insert Table 4 about here

4.3. The Determinants of the post-privatization control structure: Multivariate analysis

In this section, we report the results of a multivariate tobit regression analysis of the political determinants of the post-privatization control structure. We estimate several variants of the following model (subscripts omitted for notational convenience):

$$STATEOWN = a + \beta POLITICS + \gamma LEGAL + \delta FCLV + \nu + \varepsilon \quad (1)$$

where *STATEOWN* is the percentage held by the government for a maximum of seven years (the year of privatization and six years afterward), *POLITICS* includes a set of the key political variables discussed above; *LEGAL* refers to the legal variables described above; *FCLV* refers to firm and country-specific control variables (e.g., leverage, size, profitability, economic development), ν are year and industry fixed effects, and ε is the error term. The coefficients β and γ measure the sensitivity of residual state ownership to the political and legal variables, respectively.

For all the firm-years in which the government state ownership is 0 (one), the dependent variable *STATEOWN* is left (right) censored. Because usual regression methods that do not account for the presence of truncated variables can produce biased coefficient estimates, we use a tobit regression procedure that has been designed to deal with censored data. Following Bortolotti and Faccio (2009), we use panel estimation techniques that account for the heterogeneity over time and across firms and we estimate our equations using random effects models.¹⁴ The results are reported in Table 5. Because the political variables are highly correlated, we do not include all of them in the same model. We thus follow the usual practice and enter these variables separately in the models reported in Table 5.

In Model 1, our basic regression, we do not include the political variables. We find that the legal variables (*COMMON* and *CORRUPTION*) are related to residual state ownership. The coefficient for *COMMON* is positive and statistically significant at the 5% level, implying that

¹⁴ Bortolotti and Faccio (2009) and Guedhami et al. (2009) stress that non-linear fixed-effects models are difficult to estimate, may lead to inconsistent estimates, decimate the number of observations in the estimation stemming from firms with constant *STATEOWN* over the post-privatization period, and importantly, their results –relative to those obtained from random effects estimation–are difficult to generalize as they apply to the sample firms.

privatizing governments tend to retain significant ownership stakes in common law countries relative to civil law countries. Although this finding may reflect the significance of state control in common law countries compared to civil law countries leading to higher stakes divested in the later, it is in sharp contrast with Bortolotti and Faccio's (2009) evidence from OECD countries that privatization is more complete in common law countries. As reported in Table 5, *CORRUPTION* exhibits a positive and statistically significant coefficient (at the 5% level at least), suggesting that governments are more reluctant to divest large shares when the level of corruption is high, which is consistent with the univariate analysis.

Next, we sequentially include measures of the political environment in Models 2 through 5. In Model 2, we find that the ideology of the executive (*LEFT*) is statistically insignificant, although it exhibits the expected negative sign. This confirms our previous univariate findings, and contrasts with evidence from OECD countries where government control is significantly determined by the ideology of the executive (Bortolotti and Faccio, 2009), and theoretical arguments in Biais and Perotti (2002).

The political system (*SYSTEM*) positively and significantly (at the 1% level) affects residual state ownership in Model 3. More precisely, in parliamentary systems, residual state ownership in NPFs is higher. This result relates to arguments in the political economy literature that when the political constraints and the power of veto players are higher, they create significant constraints on governments seeking to put in place market oriented reforms such as privatization. Under such constraints, the government will be more likely to privatize slowly, divesting small stakes in gradual sales, which is our hypothesis H_2 . Our results thus provide support for H_2 .

Government tenure measured by the number of years the chief has been in office (*YRSOFFICE*) exhibits a negative sign and is highly significant in Models 4 and 6. As predicted in H_3 , this result suggests that the longer the tenure, the longer the time that the government has had to signal commitment to market-oriented reforms and is not likely to use privatization to do so, through gradual sales. Thus, as expected, stable governments are more likely to divest control, and to keep minor stakes in NPFs.

As for the degree of political opposition in the government, we find that the coefficient of *OPPOSITION* is positive and significant in Models 5 and 6, suggesting that stronger opposition in the government is less likely to lead to a high degree of cooperation between political actors and more opposition to market-oriented reforms. With stronger opposition, it is more difficult to reach a consensus on privatization, leading to divestiture of lower stakes in NPFs and higher residual state ownership. The positive coefficient thus suggests that the stronger the opposition, the higher the residual government ownership. Using a different proxy for the degree of opposition, Bortolotti and Faccio (2009) also find that lower fragmentation is associated with lower government control.

Overall, Model 6 in Table 5, which includes all the variables, political and legal, indicates that the political variables remain highly significant far beyond the impact of the legal institutions *COMMON* and *CORRUPTION* on state ownership. In particular, the results suggest that residual state ownership is higher in parliamentary systems, and lower for more stable governments and for regimes with more opposition. Collectively, these findings support our hypothesis that political institutions are relevant in explaining post-privatization ownership structure. The ideology of the executive (*LEFT*) remains, as in the original regressions, statistically insignificant.

Turning to the control variables, the results show that the residual government ownership is significantly higher in larger and more profitable firms. Although *LEVERAGE* exhibits the expected sign, it is never significant, contrary to *LGDP* which turns out to be negative and statistically significant in all the models, suggesting that residual state ownership is lower in developed countries as expected. The findings in this section imply that the political environment affects residual state ownership in NPFs in emerging markets.

Insert Table 5 about here

4.4. Additional analyses

To ensure the robustness of our results, we run additional tests reported in Table 6. More specifically, we use an alternative dependent variable and alternative measures of the political environment. We also add control variables to our base model, such as the privatization method and freedom of the press (proxy for extra-legal institutions).

4.4.1. *Alternative dependent variable.*

We specify a dummy variable *CONTROL* that is equal to 1 if the government retains control following privatization, and 0 otherwise. We use this variable as a dependent variable instead of *STATEOWN* in a probit framework (Model 1 in Table 6). Among the political variables significant in Table 5, only *YRSOFFICE* is negative and statistically insignificant, suggesting that the tenure of the executive is not a determinant of the decision to maintain government control, but rather influences the actual residual stake.

4.4.2. *Alternative measures of the political environment.*

Ideology. In Model 2, we use another proxy for the ideology of the executive, namely *LEFT POWER* drawn from Botero et al. (2004). The results show that while *SYSTEM*, *YRSOFFICE* and *OPPOSITION* remain significantly related to residual state ownership, *LEFT POWER* is not significant, similar to the *LEFT* variable in the previous models (Table 5). Thus our core results and the lack of significance of the ideology of the executive in our sample of emerging countries are not sensitive to alternative measures of the executive ideology.

Political tenure. In Model 3, we use the years left in the current term *YRSCURRENT* instead of *YRSOFFICE* as a measure of government tenure/stability. *YRSOFFICE* captures the time required to build the necessary credibility to implement economic reforms (Cukierman and Leviatan, 1992). When the government has just been elected and is at the beginning of its term, it will likely need to signal commitment, and therefore, we expect more gradual privatization and higher residual state ownership at the beginning of the term, thus whenever *YRSCURRENT* is higher. The coefficient of *YRSCURRENT* supports this argument; it loads positive and statistically significant at the 1% level.

Opposition. In Model 4, we use *FRACOPPOSITION*, a measure of the opposition fractionalization or fragmentation, as a proxy for *OPPOSITION*. The higher the degree of opposition fragmentation, the lower the degree of constraints within the government. The lack of political cohesion leads to sub-optimal economic policies as political actors fail to cooperate. In this case, the government is less likely to undertake challenging policies with a distributive nature (Edwards and Tabellini, 1991) such as privatization. We thus expect that the higher the fractionalization of opposition (higher *FRACOPPOSITION*), the lower the residual state

ownership. Model 4 of Table 6 confirms this conjecture in that *FRACOPPOSITION* exhibits a negative coefficient, which is significant at the 1% level.

4.4.3. Additional control variables.

Political rights. In Model 5, we include the *POLITICAL RIGHTS* index from Freedom House (2007) in lieu of all the other political variables, as a proxy for the general political institutions in place because this index encompasses several political aspects. The ratings of this index relate more specifically to whether there are free and fair elections, to whether there are competitive parties, etc., (see the Appendix for a more detailed definition). We thus expect *POLITICAL RIGHTS* to be negatively related to residual state ownership. If *POLITICAL RIGHTS* ratings are higher, the government is more credible and thus does not need to signal commitment by retaining a controlling stake. In Model 5, *POLITICAL RIGHTS* has the negative expected sign and its coefficient is significant at the 1% level. Therefore, when we introduce *POLITICAL RIGHTS* without the other political variables, our core results and major conclusions remain unchanged.

Privatization method. The privatization method influences post-privatization ownership structure as shown by Boubakri et al. (2005a) because it leads to more private ownership concentration and less state ownership in private sales compared with SIPs. SIPs are generally implemented gradually and minor low transfers of ownership each time. To check whether the method of privatization affects the level of residual government ownership, we include in Model 6 (Table 6) the variable *PRIVATE SALE* that takes the value of 1 if privatization is implemented through a private sale, and 0 otherwise. We find that residual state ownership *STATEOWN* is significantly and negatively related to this dummy, suggesting that the state tends to relinquish a higher stake in private sales and a lower stake in share issue privatization, in line with our expectations and the literature (e.g., Megginson et al., 2004; Guedhami and Pittman, 2006). Importantly, controlling for the effect of the privatization method, does not generally affect our previous findings on the importance of political institutions for residual state ownership. The political variables *SYSTEM*, *YRSOFFICE* and *OPPOSITION* remain significant. As usual, the ideology of the executive *LEFT* is not significant.

Press freedom as an extra-legal control. In Model 7, we control for a variable that captures public opinion pressure: *PRESSFREE*, the Press Freedom Index from Freedom House (2007). A higher index means greater freedom of the press and closer scrutiny of the behavior of the government, which is then more likely to divest and retain low levels of participation in NPFs. As expected, the coefficient of *PRESSFREE* is negative and significant at the 1% level, while the political variables show the expected signs that remain significant.

Other variables. In unreported tests using the subsample firms for which we have information on golden shares, we replicate Model 6 of Table 5 after including *GOLDEN* (dummy equal to 1 for firms with golden shares, and 0 otherwise). We find that the coefficient of *GOLDEN* is positive (equal to 0.041) but statistically insignificant. Importantly, the political variables included in the model retain their expected signs (*LEFT* is negative and significant at the 1% level, *SYSTEM* is positive and significant at the 1% level, *YRSOFFICE* is negative and significant at the 1% level) except for *OPPOSITION*, which has the expected sign (positive) but loads insignificant. In another regression, we include *CONNECTED* as an additional independent variable and find that the coefficient is not significant once we control for other explanatory variables. *LEFT* remains insignificant while *SYSTEM*, *YRSOFFICE*, and *OPPOSITION* are significant (at least at the 5 % level) with the expected sign.

Insert Table 6 about here

In sum, the evidence in this section supports our hypotheses on the importance of the political environment as a determinant of residual state ownership in privatized firms from emerging markets. This evidence is robust to the use of different proxies of the political variables, to the use of an alternative dependant variable and to the inclusion of additional control variables.

5. Conclusion

In this paper, we use a political economy framework and a unique database to investigate the control structure of 221 privatized firms from 27 emerging markets over the 1980-2001 period. We find that the control structure of privatized firms in emerging countries differs from that of firms privatized in OECD countries, as the observable (direct) government

ownership is not significantly different from its ultimate ownership, owing to the fact that most privatizations are gradual and do not involve a transfer of control rights.

After controlling for other determinants of post-privatization ownership structure, we find evidence of political factors shaping residual state ownership, as predicted by prior privatization theory (e.g., Perotti, 1995; Biais and Perotti, 2002) and empirical evidence on share issue privatization design (e.g., Jones et al., 1999). More specifically, the results show that the political system, the political cohesion, and the government stability (number of years in office) are significant determinants of the residual state ownership in NPFs even after controlling for the influence of the legal environment. Specifically, in parliamentary systems, residual state ownership in NPFs is higher. This result relates to arguments in the political economy literature that when the political constraints and the power of veto players are higher, they create significant constraints on governments seeking to put in place market oriented reforms such as privatization. Under such constraints, the government becomes more likely to privatize slowly, divesting small stakes in gradual sales. Our measure of extent of political opposition also shows that a higher opposition (lower cohesion) makes it more difficult to reach a consensus on privatization, leading to divestiture of lower stakes in NPFs and higher residual state ownership.

Also, the longer the years in office (government tenure), the longer the time that the government has had to signal commitment to market-oriented reforms in the past. Therefore, it does not have to use privatization as a commitment signal, by implementing gradual sales. As expected, we do find that stable governments are more likely to divest control, and to keep minor stakes in NPFs. In all our inferences, the ideology of the executive is insignificant which contrasts with theoretical arguments in Biais and Perotti (2002) and empirical evidence from OECD countries where government control is significantly determined by the ideology of the executive (Bortolotti and Faccio, 2009).

Our results are robust to a battery of robustness checks and alternative proxies for our dependant and explanatory variables, and overall suggest that privatization dynamics not only differ between developed and emerging markets, but also *within* emerging markets.

APPENDIX

Variables, definitions, and sources

Variable	Definition	Source
Privatization and state control variables		
<i>STATEOWN</i>	The percentage of shares held by the government.	Mainly from firms' annual reports and offering prospectuses
<i>STATE_ULTIMATE OWN</i>	The ultimate state ownership held by the government	Claessens et al. (2000), Faccio and Lang (2002), and Ben Nasr et al. (2009)
<i>CONTROL</i>	A dummy variable equal to 1 if the government maintains control, and 0 otherwise.	Mainly from firms' annual reports and offering prospectuses
<i>PRIVATE SALE</i>	A dummy variable equal to 1 if the privatization is through a private sale, and 0 otherwise.	World Bank Privatization Database and Megginson (2003)
<i>CONNECTED</i>	A dummy variable equal to 1 if the firm is politically connected, and 0 otherwise.	Boubakri et al. (2008)
<i>GOLDEN</i>	A dummy variable equal to 1 if the firm held a golden share, and 0 otherwise.	Mainly from firms' annual reports and offering prospectuses
Political variables		
<i>LEFT</i>	A dummy variable equal to 1 for the left-oriented government, and 0 otherwise.	Beck et al. (2001)
<i>SYSTEM</i>	An index of the system in the country: Direct Presidential (0); Strong president elected by assembly (1); Parliamentary (2).	Beck et al. (2001)
<i>YRSOFFICE</i>	The years that the chief has been in office	Beck et al. (2001)
<i>OPPOSITION</i>	Herfindahl index of the opposition. The sum of the squared seat shares of all parties in the opposition.	Beck et al. (2001)
<i>LEFT POWER</i>	Historical predominance of left-wing governments in each country	Botero et al. (2004)
<i>YRSCURRENT</i>	The years left in current term for the executive	Beck et al. (2001)
<i>FRACOPPOSITION</i>	Opposition fractionalization. The probability that two deputies picked at random from among the opposition parties will be of different parties.	Beck et al. (2001)
<i>POLITICAL RIGHTS</i>	An index of political rights from 1980 to 2006. These ratings rely upon the following criteria: free and fair elections take place; the rulers are elected; there are competitive parties or other competitive political groupings; the opposition has a real power and plays a significant role; and minority groups have moderate self-government powers or can participate in the government through informal consensus. The criteria are then grouped into	Freedom House (2007)

three sub-categories: electoral process (three criteria), political pluralism (four criteria), and functioning of the government (three criteria). For each criterion, 0 to 4 points are granted, where 0 denotes the lowest degree and 4 the largest degree of rights. These scores are then combined to construct the political rights index. The index goes from 1 (weak political rights) to 7 (strong political rights).

Legal and extra legal variables

<i>COMMON</i>	A dummy variable equal to 1 for firms from English common law countries, and 0 otherwise.	La Porta et al. (1998)
<i>CORRUPTION</i>	The ICRG assessment of a country's corruption rescaled (0 for low corruption and 6 for high corruption)	International Country Risk Guide
<i>PRESSFREE</i>	An index of freedom of the press. Higher scores mean greater freedom of the print and broadcast media in a country. The index is time-varying and ranges from 0 (not free) to 10 (free)	Freedom House (2007)

Firm and country level variables

<i>ROA</i>	The ratio of net income to total assets.	Mainly from firms' annual reports and offering prospectuses, and <i>Worldscope</i>
<i>LEVERAGE</i>	The ratio of long-term debt to total assets.	Mainly from firms' annual reports and offering prospectuses, and <i>Worldscope</i>
<i>SIZE</i>	The natural logarithm of total sales.	Mainly from firms' annual reports and offering prospectuses, and <i>Worldscope</i>
<i>LGDP</i>	The natural logarithm of the country's GDP per capita.	World Development Indicators (2008)

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TABLE 1
Description of the Sample of Newly Privatized Firms

Distribution of privatizations					
By year			By industry		
Year	Number	Percentage	Industry	Number	Percentage
1980	1	0.45	Basic industries	36	16.29
1981	1	0.45	Capital goods	1	0.45
1985	4	1.81	Consumer durables	8	3.62
1986	4	1.81	Construction	25	11.31
1987	3	1.36	Finance/real estate	57	25.79
1988	3	1.36	Food/tobacco	19	8.60
1989	23	10.41	Leisure	1	0.45
1990	14	6.33	Petroleum	20	9.05
1991	26	11.76	Services	1	0.45
1992	21	9.50	Textiles/trade	10	4.52
1993	11	4.98	Transportation	7	3.17
1994	18	8.14	Utilities	36	16.29
1995	16	7.24	Total	221	100
1996	36	16.29			
1997	30	13.57			
1998	8	3.62			
2000	1	0.45			
2001	1	0.45			
Total	221	100			
			By region *		
			Region (countries)	Number	Percentage
			Africa and the Middle East (8)	90	40.72
			East and South Asia and the Pacific (8)	47	21.27
			Latin America and the Caribbean (8)	56	25.34
			Europe and Central Asia (3)	28	12.67
			Total (27)	221	100
			By method of privatization		
			Method	Number	Percentage
			Private Sale	46	26.14
			SIP	130	73.86
			Total	176	100

Notes: This table provides some descriptive statistics for the sample of 221 privatized firms used in this study. We report the distribution of privatization in the countries included in the sample by year, industry, region, and method of privatization.

*World Bank country group classification.

TABLE 2
Distribution of State Ownership

	One year before privatization	After privatization (year relative to privatization)						
		0	1	2	3	4	5	6
Panel A. Total sample								
Mean	82.65	38.25	34.28	30.30	27.41	38.27	37	35.84
Median	100	39	30	22.41	17	39	39	36
N	216	216	208	197	185	60	55	51
Panel B. By important industry								
Finance/real estate								
Mean	74.04	22.02	16.31	10.74	8.27	3.47	1	
Median	72.55	2.24	0	0	0	0	1	
N	60	59	57	53	51	8	1	
Petroleum								
Mean	75.51	46.03	41.90	38.80	35.09	8.48	20.16	16
Median	100	54.45	40	40	36.50	0.45	27.49	16
N	22	22	22	20	20	4	3	2
Transportation								
Mean	90.22	49.29	44.90	43.77	38.68	32.69	25.38	0
Median	100	51	49.81	50.58	49.16	49	24.50	0
N	15	15	14	14	11	7	4	1
Utilities								
Mean	86.54	48.83	43.42	38.24	34.09	37.19	40.02	34.30
Median	99.95	50.96	49	41.80	41.45	48.60	50	36.50
N	54	53	55	53	47	25	17	12
Panel C. By region								
Africa and the Middle East								
Mean	85.15	36.64	33.47	31.61	29.48	40.26	39.32	37.86
Median	1	39	33	30.09	27.30	41.20	41.30	39
N	89	89	85	85	85	46	44	41
East and South Asia and the Pacific								
Mean	89.91	59.94	59.21	53.84	52.20			
Median	1	67	67.35	65	63.43			
N	47	47	44	40	34			
Latin America and the Caribbean								
Mean	76.30	21.62	18.34	13.02	9.11	33.66	27.74	27.54
Median	84	0.31	0	0	0	20.72	22.36	21.86
N	54	54	53	50	47	13	10	10
Europe and Central Asia								
Mean	74.13	39.09	27.21	21.75	19.09	6.72	27.49	
Median	1	42.06	13.08	0.05	0	6.72	27.49	
N	26	26	26	22	19	1	1	

Panel D. By method of privatization

Private sale							
Mean	23.17	18.64	16.95	14.92	26.79	32.66	30.67
Median	6.25	0.00	0.00	0.00	0.00	28.50	23.00
N	52	55	54	53	21	12	11
SIP							
Mean	44.17	40.47	36.14	32.86	34.85	40.84	42.30
Median	49.80	43.80	37.84	30.00	40.20	50.50	57.75
N	163	157	148	137	54	36	26

Notes: This table presents summary statistics on the evolution of state ownership for a sample of 221 firms from 27 developing countries from 1980 to 2001. We report the summary statistics for the total sample (Panel A) and for subsamples based on important industry affiliation (Panel B), region (Panel C), and method of privatization (Panel D). All statistics are present in percent and N refers to the number of observations.

TABLE 3
Descriptive Statistics for the Variables

Variable	Mean	Median	Std. Deviation	Min	Max
<i>STATEOWN</i>	0.335	0.300	0.304	0.000	1.000
<i>CONTROL</i>	0.460	0.000	0.499	0.000	1.000
<i>LEFT</i>	0.221	0.000	0.415	0.000	1.000
<i>SYSTEM</i>	0.829	1.000	0.815	0.000	2.000
<i>YRSOFFICE</i>	10.403	8.000	8.565	1.000	46.000
<i>OPPOSITION</i>	0.294	0.257	0.270	0.011	1.000
<i>COMMON</i>	0.261	0.000	0.439	0.000	1.000
<i>CORRUPTION</i>	2.827	3.000	0.987	1.000	6.000
<i>LGDP</i>	7.497	7.365	0.940	5.411	10.033
<i>CONNECTED</i>	0.303	0.000	0.460	0.000	1.000
<i>GOLDEN</i>	0.073	0.000	0.261	0.000	1.000
<i>ROA</i>	0.051	0.039	0.077	-0.184	0.391
<i>LEVERAGE</i>	0.442	0.355	0.496	0.000	5.522
<i>SIZE</i>	11.445	11.602	2.495	4.811	17.984

Notes: This table reports summary descriptive statistics for the variables used in the hypothesis tests to examine the impact of political, institutional, macroeconomic, and firm-level variables on state ownership for a sample of 221 privatized firms from 27 developing countries between 1980 and 2001. The definitions and data sources for the regression variables are outlined in the appendix.

TABLE 4
Univariate Tests by State Ownership

Variable	Means		T- Statistics	Medians		Z- Statistics
	Below or equal the median (A)	Greater than the median (B)		Below or equal the median (A)	Greater than the median (B)	
<i>LEFT</i>	0.429	0.405	0.965	0.423	0.391	1.289
<i>SYSTEM</i>	0.395	0.515	-5.094***	0.390	0.566	-4.870***
<i>YRSOFFICE</i>	0.385	0.465	-3.975***	0.325	0.500	-4.769***
<i>OPPOSITION</i>	0.425	0.424	0.086	0.390	0.431	0.376
<i>COMMON</i>	0.416	0.449	-1.400*	0.390	0.488	-1.205
<i>CORRUPTION</i>	0.401	0.504	-4.256***	0.390	0.528	-3.787***
<i>LGDPC</i>	0.473	0.376	4.884***	0.500	0.300	5.310***
<i>CONNECTED</i>	0.380	0.510	-5.307***	0.334	0.586	-5.151***
<i>GOLDEN</i>	0.491	0.575	-1.608	0.586	0.625	-1.803*
<i>ROA</i>	0.378	0.468	-4.456***	0.330	0.491	-5.084***
<i>LEVERAGE</i>	0.457	0.397	2.979***	0.490	0.350	3.370***
<i>SIZE</i>	0.383	0.464	-4.011***	0.383	0.510	-3.581***

Notes: This table reports the measures of central tendency for all explanatory variables by state ownership. The full sample includes 221 privatized firms from 27 developing countries between 1980 and 2001. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The definitions and data sources for the variables are outlined in the appendix.

TABLE 5
Regressions of State Ownership on Political, Legal, Country and Firm-Level Variables

Variable (expected sign)	Basic regression (1)	<i>LEFT</i> (2)	<i>SYSTEM</i> (3)	<i>YRSOFFICE</i> (4)	<i>OPPOSITION</i> (5)	All (6)
<i>Intercept</i> (?)	0.545** (2.095)	0.583** (2.162)	1.010*** (3.604)	0.815*** (2.661)	0.975*** (3.179)	1.338*** (4.013)
<i>LEFT</i> (+)		-0.053 (-0.946)				-0.051 (-0.926)
<i>SYSTEM</i> (+)			0.168*** (4.635)			0.156*** (3.342)
<i>YRSOFFICE</i> (-)				-0.006** (-2.189)		-0.007*** (-2.596)
<i>OPPOSITION</i> (+)					0.312*** (3.138)	0.283*** (2.868)
<i>COMMON</i> (-)	0.133** (2.079)	0.133** (2.029)	-0.032 (-0.439)	0.093 (1.248)	0.108 (1.470)	-0.121* (-1.298)
<i>CORRUPTION</i> (+)	0.076*** (3.422)	0.074*** (3.337)	0.066*** (2.935)	0.076*** (3.409)	0.059*** (2.723)	0.050** (2.299)
<i>LGDP</i> (-)	-0.113*** (-3.077)	-0.116*** (-3.120)	-0.176*** (-4.430)	-0.127*** (-3.107)	-0.153*** (-3.791)	-0.185*** (-4.724)
<i>ROA</i> (+)	0.764** (2.252)	0.702** (1.995)	0.472* (1.434)	0.858*** (2.571)	0.542** (1.705)	0.378 (1.188)
<i>LEVERAGE</i> (-)	-0.020 (-0.393)	-0.019 (-0.376)	-0.028 (-0.456)	-0.031 (-0.625)	-0.037 (-0.494)	-0.030 (-0.404)
<i>SIZE</i> (+)	0.050*** (4.312)	0.050*** (4.163)	0.046*** (4.142)	0.044*** (3.842)	0.038*** (2.987)	0.034*** (2.334)
INDUSTRY EFFECTS	YES	YES	YES	YES	YES	YES
YEAR EFFECTS	YES	YES	YES	YES	YES	YES
Chi-Square for Model	417.2	417.7	428.8	417.6	336.1	357.5
P-value	0.00	0.00	0.00	0.00	0.00	0.00
N	1017	1017	1017	1017	888	888

Notes: This table presents tobit panel estimation results from regressing the following state ownership model:

$$STATEOWN_{it} = a + \beta POLITICS_t + \gamma LEGAL_t + \delta FCLV + \nu + \varepsilon$$

where *STATEOWN* is the percentage held by the government in the firm *i* at the end of year *t*, for a maximum of seven years (the year of privatization and six years afterward), *POLITICS* includes a set of the key political variables (*LEFT*, *SYSTEM*, *YRSOFFICE*, *OPPOSITION*) at year *t*; *LEGAL* refers to the legal variables (*COMMON*, *CORRUPTION*) at year *t*; *FCLV* refers to firm- and country-specific control variables (*LGDP*, *ROA*, *LEVERAGE*, *SIZE*). ν are year and industry fixed effects. Model 1 does not control for *POLITICS*. Models 2, 3, 4 and 5 controls separately for *LEFT*, *SYSTEM*, *YRSOFFICE* and *OPPOSITION*, respectively. Model 6 includes all the political variables. The full sample includes 221 privatized firms from 27 developing countries between 1980 and 2001. The z-statistic is reported beneath each estimate. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively, one-tailed when directional predictions are made, and two-tailed otherwise. The definitions and data sources for the variables are outlined in the appendix.

TABLE 6
Additional Analysis

Variable (expected sign)	Alternative dependent variable (1)	Alternative measure of ideology (2)	Alternative measure of political tenure (3)	Alternative measure of opposition (4)	Alternative measure of the political environment (5)	Control for privatization method (6)	Control for freedom of press (7)
<i>Intercept (?)</i>	5.231* (1.952)	0.987** (2.556)	0.666** (2.078)	1.474*** (4.013)	0.241 (0.842)	1.128*** (3.125)	1.422*** (4.213)
<i>LEFT (+)</i>	0.174 (0.407)		-0.016 (-0.297)	-0.054 (-0.978)		-0.035 (-0.559)	-0.047 (-0.834)
<i>SYSTEM (+)</i>	0.930*** (2.721)	0.203*** (4.273)	0.172*** (3.626)	0.155*** (3.177)		0.083** (1.652)	0.167*** (3.461)
<i>YRSOFFICE (-)</i>	-0.006 (-0.282)	-0.009*** (-2.811)		-0.007*** (-2.510)		-0.008*** (-2.791)	-0.010*** (-2.867)
<i>OPPOSITION (+)</i>	1.209* (1.493)	0.222** (2.090)	0.179** (1.824)			0.218** (1.866)	0.288*** (2.596)
<i>LEFT POWER (+)</i>		0.001 (0.006)					
<i>YRSCURRENT (+)</i>			0.030*** (4.269)				
<i>FRACOPPOSITION (-)</i>				-0.247*** (-2.691)			
<i>POLITICAL RIGHTS (-)</i>					-0.061*** (-3.756)		
<i>PRIVATE SALE (-)</i>						-0.409*** (-5.598)	
<i>PRESSFREE (-)</i>							-0.077** (-1.790)
<i>COMMON (-)</i>	-0.559 (-0.800)	-0.127 (-1.235)	-0.089 (-0.952)	-0.111 (-1.159)	0.172** (2.469)	-0.198** (-1.983)	-0.124* (-1.315)
<i>CORRUPTION (+)</i>	0.308** (1.938)	0.040** (1.912)	0.056*** (2.644)	0.051** (2.301)	0.062*** (2.750)	0.070*** (2.822)	0.053** (2.318)

<i>LGDP</i> (-)	-1.354*** (-3.881)	-0.154*** (-3.544)	-0.149*** (-3.865)	-0.173*** (-4.397)	-0.055* (-1.333)	-0.161*** (-3.592)	-0.186*** (-4.331)
<i>ROA</i> (+)	1.548 (0.642)	0.426 (0.875)	0.377 (1.177)	0.390 (1.129)	0.633** (2.087)	0.430 (1.061)	0.276 (0.900)
<i>LEVERAGE</i> (-)	0.215 (0.523)	-0.020 (-0.400)	-0.020 (-0.393)	-0.037 (-0.588)	0.008 (0.163)	-0.028 (-0.497)	-0.043 (-0.555)
<i>SIZE</i> (+)	0.323*** (3.306)	0.042*** (2.917)	0.046*** (3.529)	0.036** (2.301)	0.059*** (5.206)	0.046*** (3.257)	0.031*** (2.424)
INDUSTRY EFFECTS	YES	YES	YES	YES	YES	YES	YES
YEAR EFFECTS	YES	YES	YES	YES	YES	YES	YES
Chi-Square for Model	117.5	337.1	361.7	350.3	436.9	287.1	362.9
P-value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	888	827	852	888	1017	660	868

Notes: Except for Model 1, a probit panel estimation, this table presents tobit panel estimation results from regressing the following state ownership model:

$$STATEOWN_{it} = \alpha + \beta POLITICS_t + \gamma LEGAL_t + \delta FCLV + \nu + \varepsilon$$

where $STATEOWN_{it}$ is the percentage held by the government in the firm i at the end of year t , for a maximum of seven years (the year of privatization and six years afterward), $POLITICS$ includes a set of the key political variables ($LEFT$, $SYSTEM$, $YRSOFFICE$, $OPPOSITION$) at year t ; $LEGAL$ refers to the legal variables ($COMMON$, $CORRUPTION$) at year t ; $FCLV$ refers to firm- and country-specific control variables ($LGDP$, ROA , $LEVERAGE$, $SIZE$). ν are year and industry fixed effects. In Model 1, we use an alternative dependant variable, a dummy variable $CONTROL$ (one if the firm maintains control and 0 otherwise) and we consider the same independent variables. Model 2 controls for $LEFT POWER$ in lieu of $LEFT$. Model 3 controls for $YRSCURRENT$ instead of $YRSOFFICE$. Model 4 controls for $FRACOPPOSITION$ in lieu of $OPPOSITION$ and Model 5 controls for $POLITICAL RIGHTS$ in lieu of all the political variables. Models 6 and 7 include two additional control variables $PRIVATE SALE$ and $PRESSFREE$, respectively. The full sample includes 221 privatized firms from 27 developing countries between 1980 and 2001. The z-statistic is reported beneath each estimate. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively, one-tailed when directional predictions are made, and two-tailed otherwise. The definitions and data sources for the variables are outlined in the appendix.