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Bernardo Bortolotti
University of Turin

Mara Faccio
Purdue University, NBER, ABFER and ECGI

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Abstract

We study the change in government control of privatized firms in OECD countries. Results indicate that governments typically transfer ownership rights without relinquishing proportional control. Control is commonly retained by leveraging state investments through pyramids, dual-class shares, and golden shares. Indeed, at the end of 2000, after the largest privatization wave in history, governments retain control of 62.4% of privatized firms. In civil law countries, governments tend to retain large ownership positions, whereas in common law countries they typically use golden shares. However, when we combine these two mechanisms, we find no association between a country's legal tradition and the extent of government control. Rather, we document more prevalent government influence over privatized firms in countries with proportional electoral rules and with a centralized system of political authority.

Keywords: Privatization, Corporate Governance

JEL Classifications: L33, D72, G15, H6, K22

Bernardo Bortolotti*
Professor in Economics
University of Turin, Department of Economics and Finance
Corso Unione Sovietica, 218 bis
Torino 10134, Italy
phone: +39 02 5203 6968
e-mail: bernardo.bortolotti@unito.it

Mara Faccio
Professor of Finance
Purdue University, Krannert School of Management
403 W. State Street
West Lafayette, IN 47907, United States
phone: +1 765 496 1951
e-mail: mfaccio@purdue.edu

*Corresponding Author

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Bernardo Bortolotti [1] and Mara Faccio [2]

Abstract

We study the change in government control of privatized firms in OECD countries. Results indicate that governments typically transfer ownership rights without relinquishing proportional control. Control is commonly retained by leveraging state investments through pyramids, dual-class shares, and golden shares. Indeed, at the end of 2000, after the largest privatization wave in history, governments retain control of 62.4% of privatized firms. In civil law countries, governments tend to retain large ownership positions, whereas in common law countries they typically use golden shares. However, when we combine these two mechanisms, we find no association between a country's legal tradition and the extent of government control. Rather, we document more prevalent government influence over privatized firms in countries with proportional electoral rules and with a centralized system of political authority.

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[1] Università di Torino and FEEM, Department of Economics and Finance, Corso Unione Sovietica, 218 bis, Torino 10134, Italy; Phone: (+39) 02 52036968; Fax: (+39) 02 52036946; email: bortolotti@feem.it.

[2] Vanderbilt University, Owen Graduate School of Management, 401 21st Avenue South, Nashville, TN 37203, U.S.A.; Phone: (+1) 615 322-4075; Fax: (+1) 615 343-7177; email: mara.faccio@owen.vanderbilt.edu.

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I. Introduction

The wave of privatizations that began in the United Kingdom in the 1980s, and spread across the globe during the 1990s, produced what is arguably the greatest transfer of ownership in the history of the corporation. Governments all over the world have sold, or are selling, large blocks of their ownership positions to the private sector. In terms of flows, privatization transactions, including share issue privatization (SIP) and private placements, raised US$1,230 billion globally during the 1977-2003 period, about one fifth of the total value of issues floated on public equity markets. Yet stories in the popular press suggest that the rollback of state control has been incomplete. Governments have often separated ownership and control in privatized companies by means of devices that leverage the voting power associated with their investments, such as pyramids, and by means of special powers, such as the power to veto acquisitions, granted to the state.[1]

The tendency for states to retain control after privatization is illustrated by the Italian government's power in its state-owned enterprises (SOEs). The Italian government launched its first large scale privatization program after the 1992 general elections, when the country was facing one of the most acute economic and political crises of the post-war period. Since 1993, major privatization deals have raised more than US$100 billion, making Italy third in total value of privatizations worldwide (Securities Data Corporation). Despite this apparently remarkable result, the Italian government is still an influential shareholder in many privatized firms. For example it holds direct and indirect stakes, through Cassa Depositi e Prestiti, in Eni (the largest oil and gas company), Enel (the electricity giant), Alitalia (the flagship carrier), and Finmeccanica (the aerospace, defense and IT group). It also can veto strategic decisions and acquisitions in fully privatized companies such as Telecom Italia, the former state

[1] For example, Julian Ellison and Duncan Reed, *Getting tough on golden shares*, Financial Times, June 6, 2003.

telecommunication monopoly. These preliminary observations suggest that, despite the large value of total privatizations, some governments retain substantial power in SOEs.

In this paper, we evaluate whether government control of privatized companies is significant, and how widespread this control is. We also analyze country, industry, and firm attributes that tend to be associated with government influence over privatized firms.

We show that many privatizations are characterized by the sale of equity without a proportional transfer of control. There are two types of mechanism that are commonly used to achieve this. First, the government can leverage the voting power associated with its investment through pyramiding, dual class shares, etc. With these ownership leveraging devices, it can remain the largest *ultimate* shareholder of a company even though it no longer directly owns 100% of the stock. Second, it may hold golden shares, permitting the government to make important decisions in the company, such as to veto proposed acquisitions, or alternatively, to impose constraints on other investors, such as caps on their share of voting rights.[2] We document the government's overall control in privatized firms by evaluating both ultimate control and golden shares.

For our analysis, we construct a sample of 141 companies from developed economies that were privatized (and became publicly traded) prior to the end of 1996. Just considering ultimate government voting rights, we find that the most common privatization outcome is that the state remains the largest ultimate owner. This is true for about one third of so-called "privatized" firms.

The notion of ultimate control is relatively new. A few studies employ this concept in settings unrelated to privatization; these studies report the widespread presence of governments as ultimate owners of banks (La Porta, Lopez-de-Silanes and Shleifer, 2002), and as owners of a wider range of firms (e.g., La Porta *et al.*, 1999, Claessens *et al.*, 2000, and Faccio and Lang, 2002). To our knowledge, however, with the exception of Tian's (2000) study of Chinese privatizations, all other analyses of privatizations have taken only direct ownership into account.

[2] See Section III.B for a more precise definition of golden shares.

In a recent paper, Boubakri, Cosset and Guedhami (2005) study direct ownership and conclude that governments relinquish control over time. We show that the picture looks totally different when ownership leveraging devices are accounted for. Thus, had we not considered these mechanisms, we would have substantially understated the power of the state in privatized firms.[3]

Consistent with earlier findings by Jones, Megginson, Netter and Nash (1999), our results indicate widespread use of golden shares. Additionally, we show that golden shares are particularly common amongst privatized companies in which the government is *not* the largest shareholder. This combination of evidence allows us to conclude that through either direct ownership, or leveraging devices or golden shares, governments maintain control of almost two thirds of privatized firms. This result is quite surprising, given the conventional wisdom that the massive privatization wave of the 1990s was spurred by a drastic rethinking of the role of state ownership.

Interestingly, we show that the devices favored for retaining government control differ somewhat across countries. In common law countries, governments tend to retain control by using golden shares, and they are unlikely to retain large ownership positions, whereas in civil law countries, governments tend to retain large ownership positions. When we look at the combined effect of ultimate ownership and golden shares, we find no relation between the percentage of privatized firms in which the government has significant overall control and a country's legal tradition. The evidence indicates that governments tend to retain control through ownership in countries dominated by left wing majorities; in democracies with proportional electoral systems; and in countries with centralized fiscal authority. Results also indicate that some of these factors are significantly related to the frequency with which governments retain overall control of privatized firms. We conclude that in the more politically fragmented environments, privatization tends to be incomplete. On the contrary, the delegation of substantial authority to sub-national governments fosters full privatization.

[3] We will show that, as of 2000, in privatized firms in which a government is the largest owner, governments *directly* controlled an average of 37.14% of voting rights, while their ultimate control stake was on average

The rest of the paper is organized as follows. In section II, we describe the sample and data employed in the study. In section III, we discuss the structure of control in privatized and matching firms. Section IV presents our analysis of the relation between the use of the two control mechanisms, ultimate voting rights and golden shares, and various characteristics associated with countries, industries, and firms. Section V summarizes the conclusions to be drawn from our study.

II. Data

A. The samples of privatized and control companies

The *Global New Issues Database* of *Securities Data Corporation* (SDC) provided the complete list of privatization transactions in public equity markets in OECD economies before 1/1/1997. Privatization transactions are defined as primary or secondary issues of shares on public equity markets, by companies in which central or local governments are shareholders. We retrieve 299 privatization transactions, 44% of which are IPOs from the SDC database. It has been widely documented that the large size of SOEs has often forced divesting governments to offer a series of tranches. In fact, the privatizations reported by SDC include 205 companies, each of which offered an average of 1.4 issues. We cross checked our privatization sample with information from various sources. All the companies in our list are also reported in the Privatization International (PI) dataset and appear in Megginson's Appendix.[4] We also compare the SDC data with information from selected official sources, such as the Italian Ministry of the Economy and Finance, the British HM Treasury, and Spanish SEPI, and other privatization agencies. Using data from these other sources, we conclude that our initial sample includes 98% of companies privatized in the public equity markets in OECD countries prior to 1997.

52.18%.

[4] http://faculty-staff.ou.edu/M/William.L.Megginson-1/

After eliminating firms for which ownership data is not available, we have a sample of 141 privatized firms. For comparative purposes, for each privatized firm, we identify a publicly traded firm from the same country and Campbell industry category (1996). Among all eligible firms, we select the one with the equity market capitalization closest to that of the privatized firm, at year-end 1996, as long as its market capitalization is within a +/-30% range. If no company satisfies these criteria, we ignore the country criterion, and select a firm and in the same Campbell industry classification that has the closest market capitalization and is within the +/-30% range. If no match is found, we ignore the industry criterion, we then pick the domestic firm with the closest market capitalization that is within the +/-30% at the end of 1996. If the government is a shareholder of a matching firm, we replace it with the next size match. The first step criteria yield matches for 68% of privatized firms; the second step criteria yield matches for 30%, and only one match required use of the third criteria.

Name changes and acquisitions are tracked using the information contained in *Worldscope*, *Extel* and *SDC*. In the case of mergers and acquisitions, we track the bidding company or the company resulting from the merger. In some cases, a privatized company merged with or was acquired by a privately held company and was either de-listed or its shares were registered under a new name. We track the newly created company, provided that its shares trade on the stock market where shares of the privatized company were was initially floated.

B. Control structure: Data and examples

We employ the sources listed in the Appendix to measure the ultimate control (voting) rights of the largest shareholders for all privatized and matching companies. Ultimate voting rights are measured at the end of 1996 and 2000, following the procedure employed in previous studies by La Porta, Lopez-de-Silanes, and Shleifer (1999), Claessens, Djankov, and Lang (2000), and Faccio and Lang (2002). For example, if a family owns 50% of Firm X, which in turn owns 30% of Firm Y, then we posit that this family controls 30% of Firm Y (the percentage is determined by the weakest link along the control chain). As discussed in detail later, we define a

large shareholder as anyone who directly or indirectly controls at least 10% of the firm's voting rights. For the privatized companies, we also collect information from the privatization prospectuses regarding special decision powers granted to the state and various restrictions on other investors that give governments power.

Two examples, Deutsche Lufthansa AG (Germany) and SGS-Thomson Microelectronics (now STMicroelectronics, France), illustrate how complex the control structures of privatized firms may be.

[Figure 1 goes here]

Deutsche Lufthansa, Germany's largest airline, was first privatized in May 1966 in a rights issue that diluted the government's stake to 74.31%. Figure 1 depicts its control structure at the end of 1996. The company has five direct shareholders: Deutsche Postbank, Deutsche Bahn, KfW, the State of North Rhine-Westphalia and MGL. The government controls a majority of voting rights in Deutsche Postbank, Deutsche Bahn, and KfW. The State of North Rhine-Westphalia is a local government authority. MGL is a publicly traded company that has two principal shareholders, Bayerische Landesbank Girozentrale and Dresdner Bank, each of which holds 44.5% of the firm's voting rights. Bayerische Landesbank, in turn, is 50% controlled by the State of Bavaria (a local government authority) and 50% controlled by the Association of Bavarian Saving Banks. Dresdner Bank is 22% controlled by Allianz (which is part of a complex cross-holding).

Three entities hold large ultimate positions in Lufthansa: Allianz, which indirectly controls 10.05% of votes (the minimum among 10.05%, 44.5% and 22%), the Association of Bavarian Saving Banks, which controls 10.05% of votes (the minimum among 10.05%, 44.5% and 50%), and the German government, which controls 50.70%[5] of votes. The State is thus Lufthansa's largest ultimate shareholder. Notice that we would have identified the government stake as only 1.77% of shares had we considered only direct ownership – as most privatization studies do.

[5] Min (100%, 1.03%) + min (100%, 0.4%) + min (80%, 37.45%) +1.77% + min (10.05%, 44.5%, 50%) = 1.03% + 0.4% + 37.45% + 1.77% + 10.05% = 50.70%

[Figure 2 goes here]

STMicroelectronics N.V. (formerly known as SGS-Thomson Microelectronics N.V.) was first privatized in December 1994 when the company's shares were floated on the NYSE. STMicroelectronics N.V. manufactures and supplies a broad range of semi-conductor integrated circuits and discrete devices. Figure 2 illustrates its control structure at the end of 2000. The company's control structure involves complex pyramiding. The bottom left side of the figure depicts the stakes that trace back to the French government. The right side shows those that trace back to the Italian government. The French government indirectly controls STMicroelectronics N.V. through two government controlled firms: CEA (100% control) and France Telecom (55.5% control). CEA, through CEA Industries, controls 51% of FT1CI voting rights. Therefore, the French government indirectly holds a 51% interest in FT1CI (min(100%, 100%, 51%)). Additionally, through France Telecom, it indirectly controls the remaining 49% (min(55.5%, 49%)) of FT1CI. Thus, overall, the French government controls 100% of FT1CI (51%+49%). In turn, FT1CI indirectly controls 50% (min(69.4%,100%, 50%)) of STMicroelectronics N.V. Thus we posit that the French government controls 50% of STMicroelectronics N.V. voting rights (min(50%,100%)).

The Italian government indirectly controls STMicroelectronics N.V. through IRI (100% government owned) and Finmeccanica (government holds 32.4% of votes). Additonally, IRI has a 5% stake in Finmeccanica. Thus, the Italian government controls 37.4% of Finmeccanica. Finmeccanica has a 50% stake in STMicroelectronics Holding NV, which controls 100% of STMicroelectronics Holding II BV which, in turn, has a 69.4% stake in STMicroelectronics N.V. Thus, through this pyramid, the Italian government controls 37.4% of STMicroelectronics N.V.'s voting rights (min(69.4%, 100%, 50%, 37.4%)). To summarize, this company is under majority government control, albeit two different nations are involved.[6]

[6] Only a handful of cases involve more than one government.

III. The ultimate control structure of privatized and matching firms

A. Distribution of voting rights in privatized companies

Following previous research (La Porta *et al.*, 1999, Claessens *et al.*, 2000, and Faccio and Lang, 2002), we categorize the largest ultimate owner of each firm into the following six types:

- *State*: A national government, a local authority (county, municipality, etc.), or a government agency;
- *Family:* A family or a firm that is unlisted on any stock exchange;
- *Widely held corporation:* A non-financial firm, defined as *widely held* (that is, no shareholder controls 10% or more of the votes);
- *Widely held financial institution:* A financial firm (SIC 6000-6999) that is widely held;
- *Miscellaneous:* Charities, voting trusts, employees, cooperatives, foundations, or minority foreign investors;
- *Cross-holdings:* The largest ultimate owner of Firm X is another firm, Y, of which the largest owner is, in turn, firm X, or alternatively, firm X is the largest direct owner of its own stock.

If the largest ultimate owner of a corporation is an unlisted firm, we trace its owners using all available data sources. Companies that do not have a shareholder controlling at least 10% of votes are classified as *widely held*.

[Table I goes here]

Table I presents the percentages of firms having ultimate owners belonging to each of the six categories. All percentages reported in this paper are computed with year end data. Panel A shows the distribution of ownership types for privatized firms. The largest ultimate owner of privatized firms is most frequently the state, both at the end of 1996 (34.75% of cases) and at the end of 2000 (29.79%).

Thus, even after privatization, the government is the largest ultimate owner of almost one third of firms. A large percentage of privatized companies do not have a large shareholder under the 10 percent rule, and therefore, those firms are categorized as widely held. The percentage of

widely held companies increases (insignificantly) through time (27.66% in 1996, and 30.50% in 2000). Amongst privatized firms, the next most frequent type of ultimate owner is families and unlisted companies. Families control 16.31% of firms in 1996, and 19.86% in 2000. Widely held financial institutions are also frequently large shareholders; they are the largest shareholder in 17.02% of firms in 1996 and in 9.93% of firms in 2000.

The ownership of matching firms exhibits a different pattern (see Table I, Panel B). By construction, the government is never the largest shareholder in the matching sample. Most frequently, matching companies are widely held (37.59% of firms in 1996 and 41.84% in 2000). Second most frequently, the largest shareholder of matching firms is a family; they constitute 35.46% of largest owners in 1996, and 28.37% in 2000. The largest owner is also frequently a widely held financial institution (19.86% of matching firms in 1996, and 11.35% in 2000). Widely held corporations, miscellaneous investors, and cross-holdings play a minor role.

A comparison of privatized and matching firms (Panel C) shows some convergence in their control structures. From 1996 to 2000, the differences in the percentage of firms with families as the largest shareholder, widely held financial institutions and miscellaneous shareholders declined or became insignificant. However, the differences in the percentage of firms with widely held corporations as the largest shareholder, as well as the differences in the percentage of widely held firms, increase.

[Table II goes here]

Table II shows that, on average, we observe a convergence in the concentration of voting power for privatized and matching firms. The average percentage of voting rights held by the largest ultimate shareholder for the privatized firms declines marginally from 27.80% at the end of 1996 to 25.51% at the end of 2000 (Panel A), and the percentage for the control sample rises substantially from 21.10% in 1996 to 26.37% in 2000 (Panel B). The difference between privatized and matching firms is significant in 1996, whereas it is insignificant in 2000 (Panel C).

Most importantly for our purposes, results indicate that amongst companies in which the government is the largest shareholder, government voting rights average 51.27% at the end of 1996 and 52.18% at the end of 2000 (Panel A). Hence in these companies, not only is the government the largest shareholder, but on average it controls the majority of votes. Ownership leveraging devices, such as pyramids, cross-holdings and dual-class shares, are more common among privatized firms in which the government is the largest shareholder than in peer firms. In 1996, 53.06% of privatized firms in which a government is the largest owner had at least one ownership leveraging device in place (Panel A), compared to 30.61% of control firms; and in 2000, 52.38% of the former were using such leveraging devices, compared to 33.33% of the latter. Had we not considered these leveraging mechanisms, the average percentage of government voting rights would have been only 43.01% (rather than 51.27%) in 1996, and 37.14% (rather than 52.18%) in 2000. This comparison indicates that previous studies that take into account only direct ownership substantially understate the magnitude of government voting power in privatized firms.

B. Golden shares

The government can grant itself wide discretionary powers over even fully privatized firms. We define *golden share* as the set of the State's special powers and statutory constraints on privatized companies. 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 to consent to the transfer of subsidiaries, dissolution of the company, ordinary management, etc. The above mentioned rights may be temporary or not. On the other hand, statutory constraints include (i) ownership limits; (ii) voting caps; (iii) national control provisions.

Golden shares have different institutional characteristics in different countries. For example, in many firms in the U.K., the special shareholder must give prior consent to changes in the ownership caps in the articles of association, which usually prevent any investor or group of

investors from holding 15% or more of the firm's voting rights. Further, in the UK, the articles defining rights attached to the special share cannot be altered or removed. The special shares do not permit the state to vote at general meetings, but they do entitle the holder to attend and speak at such meetings. This set of basic special share provisions are present in the articles of association of British Aerospace (now BAE Systems), British Energy, Southern Electric and National Grid Group Plc. The rights attached to the special share are wider in only a few cases, in which a national strategic interest can be identified. The French *action spécifique* gives the state extensive powers. In general, the relevant Minister's prior approval is required for any investor to hold more than a certain percentage of the capital or voting rights (10% for Elf Aquitaine (now Total), Havas and Thomson-CSF (now Thales)). Usually a representative of the French government is appointed to the board of directors to act on behalf of the Minister. In some cases he has specific veto powers (e.g., for Elf Aquitaine, to block the sale of certain strategic assets), while in others he can veto any board resolution (Thomson-CSF). In Turkey, in some cases, special powers are so extensive that they involve the government in everyday management.

We collected prospectuses for our firms, because information regarding golden share provisions must be fully disclosed in the prospectuses of listed companies. The prospectuses were provided by the individual companies themselves, investment banks, security exchange commissions, and privatization agencies. We obtained prospectuses for, and identified the presence or absence of golden shares in 104 of the 141 companies in our sample of privatized firms.[7]

[Table III goes here]

Table III documents the distribution of golden shares amongst privatized firms. We find that 62.5% of these firms have outstanding golden shares at the end of 1996. Special powers are quite common, occurring in 39.42% of privatized companies. In a number of cases, privatized companies' charter provisions set upper limits on the ownership or voting rights that can be

[7] Detailed institutional information about golden shares can be found on various official web sites such as: the HM Treasury in the United Kingdom, www.hm-treasury.gov.uk; the Spanish Sociedad Estatal de

acquired by other investors without government approval. In some cases, these limitations apply only to foreign investors. It is common for articles of incorporation to require that the headquarters be located in the country of incorporation or to require that the board members be citizens of the country of incorporation.

Golden shares are less common amongst companies in which the government is the largest ultimate shareholder. As reported in Table III, at the end of 1996, of the 39 companies in which the government was the largest shareholder, 56.41% had golden shares compared to 66.15% of the remaining 65 firms. Similarly, at the end of 2000, 57.58% of companies in which the government was the largest shareholder had golden shares, compared to 64.79% of the other privatized companies.

The government holds large voting rights or golden shares in 65.2% of privatized firms at the end of 1996, and 62.4% of privatized firms at the end of 2000.[8] This evidence clearly indicates that, in the majority of cases, the privatization process is incomplete; indeed, the state relinquished limited power to private investors

The presence of government officials on boards of directors provides further evidence of government influence in privatized firms. For example, Belgian Justice Minister Tony Van Parys served as Chairman of Dexia Belgium SA during our sample period; Belgian Senator Philippe Bodson served as Executive Director of Distrigaz SA; Canadian MP, the Hon. W. David Angus, was director of Air Canada; and Swedish MP Lennart Nilsson served as Chairman of Celsius AB. In the UK, where it appears that the government has divested itself of considerable voting rights, we identified several cases in which prominent members of the House of Lords sat on the boards of privatized firms; these include AEA Technology PLC, BG PLC, BP Amoco PLC, British Airways PLC, Rolls-Royce PLC, and Scottish and Southern Energy PLC. Most of these firms have golden shares outstanding.

Participaciones Industriales, www.sepi.es; and the Austrian Holding and Privatisation Agency, www.oiag.at.

[8] In computing these percentages, we make the conservative assumption that companies for which we could not obtain the privatization prospectus do not have golden shares.

C. Government influence across different industries and countries.

Table IV, Panel A shows that at the end of 2000, large government ownership positions and the use of golden shares in privatized firms varies considerably across industries. In two sectors, basic industries, and services, the government is the largest shareholder in the majority of privatized companies (year end 2000). Other industries in which governments are frequently the largest owner are consumer durables, food/tobacco, and transportation. On the other hand, governments are infrequently the largest owners in finance/real estate, leisure and textiles/trade. Additionally, golden shares exist in more than half of the firms operating in the following sectors: basic industries, consumer durables, leisure, petroleum, transportation, and utilities. On the other hand, golden shares are relatively uncommon in the capital goods, finance/real estate, and textiles/trade sectors.

[Table IV goes here]

Panel B of Table IV shows the variation in government control of privatized firms by country. At the end of 2000, the government was still the largest shareholder in all former SOEs in Finland and Greece. On the other hand, the privatization process appears to have been more complete in Australia, Ireland, Mexico, New Zealand, Turkey, the UK, and the US. These figures, however, reflect only the identity of the largest blockholder, and they reveal nothing about golden shares. In fact, all firms have outstanding golden shares in Australia, Belgium, Greece, Ireland, Mexico, the Netherlands, New Zealand, Norway, Sweden and Turkey. In the UK, although the government held less than 10% of voting rights in all privatized firms, it held golden shares in 85% of privatized companies.

Panel C shows the effect of four country characteristics on the extent of government control of privatized companies. The first characteristic is the legal tradition of the firm's country. Past research has shown that in civil law countries, the state is typically a more influential blockholder than it is in common law countries (La Porta, Lopez-de-Silanes, Shleifer, 1999). Researchers have observed that large government ownership positions in banks are pervasive in civil law

countries (La Porta, Lopez-de-Silanes, Shleifer, 2002). Legal tradition also affects investor protection and financial development, and thus it may affect indirectly the government's incentives to relinquish control of SOEs (La Porta et al., 1997, 1998). We test the role of legal tradition by identifying countries with a *Common Law* tradition.

Our results are consistent with prior evidence regarding the effect of legal tradition on voting rights (La Porta, Lopez-de-Silanes, and Shleifer (1999, 2002)). Governments are substantially more likely to be the largest blockholder in civil law, as opposed to common law, countries: 48.5% of firms in civil law countries compared to 4.6% in common law countries. However, we find the opposite result for golden shares. In common law countries, 86.5% of firms have outstanding golden shares, compared to only 49.2% of companies in civil law countries. Governments in common law countries are clearly using alternative instruments to retain influence. This suggests that earlier studies overstate the difference between firms in countries with the two legal traditions.

We also consider two political characteristics that may affect government control of privatized firms: the political incentives shaped by electoral rules, and whether the incumbent government is oriented to the right or left of the political spectrum. A higher electoral disproportionality is a key feature of majoritarian political systems, displaying on average a lower number of parties, more stable cabinets, and a lower degree of political fragmentation (Persson and Tabellini, 2003). Previous research has established that majoritarian countries privatize sooner a larger fraction of their SOE sector. On the contrary, in proportional political systems privatization is delayed by the conflict among the several parties with veto power (Bortolotti and Pinotti, 2003, and Bortolotti and Siniscalco, 2004). Thus electoral disproportionality should affect residual state ownership in privatized firms. Our index *Dispr* is the Gallagher (1991) index of disproportionality:

$$G = \sum_{i=1}^{N} \sqrt{\frac{1}{2}\left(v_i - s_i\right)^2} \qquad (1)$$

v_i = votes share obtained by party i

s_i = seats share held by party i

N = total number of parties

The index is continuous; it equals zero when the apportionment of parliamentary seats is exactly proportional to electoral results, and it increases as disproportionality increases.[9] Initially developed by Lijphart (1999), this variable has been extended and updated by Bortolotti and Pinotti (2003) (who used the sources listed in the Appendix), and it is used by Pagano and Volpin (2005) as a determinant of corporate governance patterns in OECD economies.

Results reported in Panel C show that the level of electoral disproportionality is related to the likelihood that governments remain the largest shareholder after privatization. Specifically, we find a significantly higher proportion of firms in which the government is the largest shareholder in countries with a low disproportionality index.

Several theoretical models have shown that partisan politics is relevant to privatization (Perotti, 1995; Biais and Perotti, 2002). In particular, these models show that by allocating a substantial amount of (underpriced) equity to the middle class, right wing governments create a constituency that supports market oriented policies, which in turn, increases their chances of reelection. The empirical implication of this outcome is straightforward: one would expect more government control of privatized firms in countries ruled by socialist or Christian-democrat coalitions relative to countries governed by right-wing, market oriented cabinets.

Using Huber's and Inglehart's (1995) comprehensive partisan classification as a starting point, we construct an index of political orientation *Partisan.* Our index is computed as the weighted average of the right-left political orientation scores of the parties forming the executive branch of government, where the weights are the ratio of the number of parliamentary seats held by each party to the total held by the ruling coalition as a whole as a proxy of the effective power

[9] For presidential and semi-presidential countries, (such as, respectively, the USA and France) the yearly disproportionality index is the average of values for the last legislative and presidential elections.

enjoyed by each party within the government coalition. The partisan data are counted immediately after the last election. The left-right political orientation score is high (low) for right-wing (left-wing) parties. This index survived extensive cross-checking with other independent sources. We expect that when our index is used to explain the timing of privatization in OECD countries, large scale privatization will occur later (be more incomplete at any given time) in countries ruled by coalitions that lean to the left of the political spectrum (Bortolotti and Pinotti, 2003). Consistent with our predictions, we find more government control of privatized firms in countries ruled by left-wing governments (e.g., low partisan index).

According to the commitment view, governments are forced to establish SOEs when they lack the necessary institutions to support private investment in socially-valuable projects due to the risk of expropriation (see Esfahani and Ardakani, 2005). Weingast (1995) points out that fiscal federalism combining local governments' regulatory responsibility over the economy with a hard budget constraint provides a suitable governance structure to credibly commit the state to preserve markets and support private investment.

To test Weingast's theory, we use a dummy variable that equals one in countries where state/provinces have authority over taxing, spending, or legislating, and zero otherwise (*Federal)*. The data for this variable are from the Beck, Clarke, Groff, Keefer, and Walsh's (2001) *Database of Political Institutions*. This indicator broadly identifies countries implementing fiscal federalism, an institutional setting where the central government delegates fundamental powers to federal states or lower level governments (see Oates, 1999). If markets can thrive under fiscal federalism, our dummy should be negatively associated with government influence in firms. Our results are inconsistent with this prediction. In Table IV, Panel C, the reported values indicate that there is not a significant difference between federal and non-federal countries in the percentage of firms in which the government is the largest shareholder. However, we find that a larger percentage of firms in countries with fiscal federalism have golden shares. We show in the next

section that this result is driven by country characteristics that are not controlled for in this univariate setting.

IV. Multivariate analysis of government control of privatized firms

Our descriptive analysis suggests that government control of privatized firms is pervasive across developed economies. Yet the breakdown by country and industry reveals some intriguing cross-sectional variation. In this section, we investigate the question of which country factors and firm characteristics are associated with more government control of privatized firms. In order to identify the associated characteristics, we perform a multivariate analysis of ultimate government voting rights and golden shares.

Before proceeding with the analysis, additional data was collected. First, we must have the data required track changes in governments' direct and indirect ownership in our privatized firms. Changes in direct ownership may be due to additional sales of stock to other investors, to primary stock issues, or to acquisitions of the company's shares by the government or other public entities.

When governments use pyramiding in their control positions, changes in the control structure must be identified along the entire chain. This additional data allows us to construct the variable *State voting rights*, percentage ultimate voting rights held by the government in the privatized company, for each year in the 1996-2000 period. Second, we collect data to construct a set of economic and financial variables to control for firm-specific time varying effects.

Our test includes three regression models. First, we estimate *State voting rights.* Second, we estimate the probability of observing golden shares. We use a dummy variable *Golden*, which equals 1 if at least one of the provisions that we described in our discussion of golden shares (section III.B) is present in firm *i* in year *t*, and 0 otherwise. Finally, we evaluate the combination of power held by governments through voting rights and golden shares by estimating the probability that the government is the largest shareholder and/or that the firm has golden share

provisions. This probability is captured by two dummy variables, *GoldOwn10* and *GoldOwn20*, which equal 1 when *Golden* is equal to one and/or when residual government voting rights exceed 10 or 20 percent, respectively, and which equal 0 otherwise. We now turn to the explanatory variables.

A. Country specific explanatory variables

We consider a variety of country characteristics, including legal, institutional, political, and economic conditions that may affect the level of governmental power in privatized firms. In all regressions, we control for the legal tradition of the country, the degree of electoral disproportionality, the partisan orientation of the government, and the level of political decentralization. These variables were described in Section III.C.

In addition, we consider a variable related to the country's financial situation. Indeed, financially distressed governments have frequently divested their SOEs and have used the sale proceeds to reduce public debt or to help finance the budget. Furthermore, in some developed countries, notably in Italy and France, bailouts of SOEs have been a drain on the government's budget. In this situation, privatization might improve the public budget directly by reducing government transfers to these companies. Our measure of a government's financial condition is the ratio of total government debt (domestic and foreign) to GDP in a given year (*Debt Ratio*). Fiscal deficits could be used an alternative measure, but it seems more suitable to use a stock variable, rather than a flow variable, to explain our dependent variables. Furthermore, debt series are typically more stable over business cycles.

B. Firm specific explanatory variables

We control for several firm characteristics that potentially affect government voting rights after privatization. First, we consider whether the firm is in a politically sensitive industry. Some privatized firms in the energy, transportation, telecommunication, and utility industries are strategically important for the national economy, and they are often shielded from competition.

Furthermore, they may enjoy favourable treatment by the state with respect to regulation, guaranteed business, contracts, etc. If companies operating in these sectors are more important to the state, it is plausible that the government will keep a larger stake in these firms. Governments may also derive significant benefits from ownership of banks, which can be used to control the selection of projects to be financed. We control for this effect with industry dummy variables, based on two-digit SIC codes, for more politically sensitive sectors (*Petroleum, Transportation, Utilities, Finance*).

We also control for the firm's value, profitability, size and leverage; financial data for these variables was collected from *Worldscope*. These variables are tested using two variable types: the variable levels for a privatized firm and the differences between the privatized firm and its matching peer. In the first case, we assume that the government decision to retain control depends on the characteristics of the privatized company. In the second case, we assume that the government decision depends on the relative performance of the privatized firm compared to its benchmark firm. Since these two types of variables are labelled with the same names, the types are explicitly specified in the notes to the tables and in the discussions. We use standard variables for these firm characteristics; we measure value with market-to-book (*MB*), profitability with return on equity (*ROE*), size with the (log of) total assets (*Size*), and leverage with the debt-to-equity ratio (*Leverage*).[10]

Government residual voting rights may also depend on the non-pecuniary private benefits of control. Since they reflect the benefits a shareholder may extract from the firm, they should be correlated with the firm's control structure. In particular, we expect to should observe a higher subsequent concentration of government control in industries in which shareholders are able to extract larger non-pecuniary benefits. The problem is, of course, to find a way of isolating non-pecuniary benefits. For this purpose, we follow Gompers, Ishii and Metrick (2006) in

[10] The *MB* ratio is [Market value of (Ordinary + Preferred Equity)] / [Book value of (Ordinary + Preferred Equity)]. *ROE* is computed as (Net Income before Preferred Dividends - Preferred Dividend Requirement) / Last Year's Common Equity. *SIZE* is the total assets of the company converted to U.S. dollars, using the fiscal

constructing our variable *Benefit*; this variable is the percentage of firms in each 2-digit SIC industry (within each country) having a firm name that includes the name of any of its top officers (CEO, chairman of the board, president, a vice-president, or secretary of the board), as reported in *Worldscope* at the beginning of the sample period.[11]

C. The testing strategy

The nature of our dependent variables determines the econometric tools used in our analysis. For example, the variable *State voting rights* is left (right) censored for all the firm-years in which ultimate government voting rights are zero (one), which includes a significant percentage of our sample. In this case, conventional regression methods fail to account for the qualitative difference between truncated (zero/one) and continuous variables. Tobit analysis, instead, is based on a new random variable that infers the missing tail in the distribution of the observed variable, allowing for estimation by conventional maximum likelihood methods (Amemiya, 1985). Additionally, the probabilities of control via golden shares are estimated using conventional Probit models. All the econometric models presented estimate the parameters by maximizing a log-likelihood function.

Our dataset makes it possible to use panel estimation techniques, which deal both with the heterogeneity over time and across units (i.e. firms, in our case). Equations have been estimated by using random effects models.[12]

We are also aware that our estimates may be affected by endogeneity problems, especially when firm characteristics are included as regressors. As a partial solution, all the time varying covariates are lagged one year. Obviously, the lagged variables are predetermined but not strictly

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year end exchange rate. *Leverage* is computed as (Long Term Debt + Short Term Debt + Current Portion of Long Term Debt) / Common Equity.

[11] Our variable is slightly different from the one used in Gompers et al. (2006). Our changes are driven mostly by data constraints.

[12] It is well known that fixed effects non-linear models produce inconsistent estimates, and that inconsistency is particularly severe for the probit model (Greene, 2004). The problem is that the estimator of each fixed effect uses only information from the corresponding group and the alternative of sweeping out intercepts by taking within-group averages is not possible in non-linear models. When a small number of observations is available for each group (as it happens in our sample) the variance of the estimator of the fixed effect does not asymptotically converge to 0; as a consequence, the estimator of the slope coefficient is also biased.

exogenous. Thus, we are estimating conditional expectations, and we caution the reader not to infer causality when interpreting our reported coefficients.

D. Empirical results

We do not have a theoretical basis for predicting a different effect of any of our explanatory variables on ultimate government voting rights or on golden shares provisions. No clear relation is visible between these two channels, even though some provisions (particularly special powers, ownership limits and voting caps imposed on foreign shareholders) appear to be negatively correlated with ultimate government voting rights. For the sake of consistency, we run exactly the same models for all dependent variables described at the beginning of section IV.

Table V presents the estimated coefficients for Tobit regressions when *State voting rights* is the dependent variable. Column (1) presents the baseline model, Column (2) includes sector dummies, and Columns (3) and (4) include both the sector dummies and firm specific characteristics. The model in Column (3) uses the variable levels for the privatized firms' levels and the model in Column (4) uses the differences between the privatized company and its peer.[13]

[Table V goes here]

The results reported in Table V confirm that our legal, institutional and political factors are relevant in explaining government control in privatized firms. Consistent with previously reported results, privatized firms in common law countries have a lower level of government voting rights than those in civil law countries; the difference is significant at the .01 level. Thus, in terms of voting rights, privatization is more complete in common law countries. A result that is perhaps more surprising is that fiscal federalism has a considerable effect on the extent of privatization. Across all specifications, the dummy *Federal* is always negative and highly statistically significant. It is important to note that this effect holds for all privatized firms, not just for those controlled by a local government. This result suggests that, as predicted, the

[13] We use parsimonious specifications since the number of observations shrinks rapidly when additional control variables are included. We report the estimated coefficients of the set of control variables that yields the most interesting results.

distribution of fiscal authority to states/provinces provides an institutional setting in which governments are more likely to have a strong commitment to privatization. The government's political orientation also appears to have an effect on residual government voting rights, although the difference is not statistically significant in the model that uses peer-adjusted performance measures (Column 4).[14] Overall, the estimated coefficients of the variable *Partisan* suggest a negative relation between the presence of a right-wing government and the extent of government voting rights. This result is completely consistent with previous findings (Jones et al., 1999, Bortolotti et al, 2003).

Interestingly, the electoral system also has a considerable effect on the control structure of privatized firms. We find a strong and negative relation between the disproportionality index, *Dispr*, and residual government voting rights. This evidence is consistent with the political economy literature, which continues to find links between electoral rules and a broad range of fiscal policy choices. On average, majority rule countries, which display higher disproportionality between the percentage mix of officials' parties and the percentage mix of the electorate's votes, are associated with smaller governments, less welfare spending and balanced budgets (Milesi-Ferretti et al., 2002; Persson and Tabellini, 2003). Our results are consistent with these associations. In our sample, the majority rule governments retain a lower percentage of voting rights in privatized firms than do more proportional governments; this is certainly consistent with smaller government. Majority rule might also make it easier to make the decision to privatize completely, since there are fewer veto players involved in the privatization decision compared to more proportional governments.

The firm's industry does not generally seem to impact the level of residual control. Surprisingly, government stakes in banks and financial institutions are significantly lower than those in non-financial firms. In their analysis of 1995 data, La Porta, Lopez-de-Silanes, and Shleifer (2002) find the opposite; they conclude that government ownership of privatized banks

[14] It is important to note that the number of observations is substantially lower in the model that uses differences (Column 4).

remained very large even after the wave of privatization in the 1980s. Our finding suggests that after the large-wave of the 1990s, government ownership in banks declined considerably relative to other sectors.

Columns (3) and (4) in Table V report the estimated coefficients for firm characteristics. Interestingly, we find that more valuable and more profitable firms tend to be privatized more completely than other firms. Market-to-book (*MB*) and Return on equity (*ROE*) have highly statistically significant negative coefficients, both in the model that uses firm levels (Column (3)) and in the one that uses differences between privatized firms and their matched peers (Column (4)). These findings appear consistent with a "best-foot-forward" privatization policy, in which governments sell stronger companies first (see Gupta, Ham, Svejnar, 2005). Finally, in the model based on peer adjusted data, both firm size and the non-pecuniary private benefits associated with control are positively associated with more residual government control. Government debt ratios and firm leverage do not appear to be associated with residual voting rights.

[Table VI goes here]

Table VI presents the results of the probit analysis of the set of golden shares. Only two independent variables are associated with the presence of golden shares, the legal tradition variable *Common Law* and the *Utility* sector indicator variable. First, the coefficient of *Common Law* indicates that golden shares are more likely in common law countries; it is highly statistically significant and remarkably stable across the four regressions. This result is consistent with the highly significant association found between legal tradition and the presence of golden shares in the descriptive analysis reported earlier. This evidence shows that golden shares, which were initially developed in the United Kingdom to encourage the transfer of ownership rights in strategic industries, found a more favourable environment in countries belonging to the same legal tradition.

Second, firms in the utility sector are more likely to have golden shares. This result is not surprising because golden share provisions have been specifically designed by governments to

maintain control in politically sensitive sectors. Utilities include electricity, gas, and telecommunications companies, which provide essential public services that are often regulated because of their importance to the nation.

Finally, we estimate the overall residual government control of privatized firms maintained through the combination of voting rights and golden shares. Table VII presents the probit analysis results. The analysis uses two dummy dependent variables that equal 1 when the firm has at least one golden share or when ultimate government voting rights exceed 10 or 20 percent of outstanding rights in company *i* in year *t* (*GoldOwn10 and GoldOwn20*, respectively). These variables reflect governments' unwillingness to completely relinquish control in privatized firms.

[Table VII goes here]

Three factors which were highly significant in the analysis of *State voting rights* are also significant here: disproportional representation in the electoral system, fiscal federalism, and industry. Across specifications and control thresholds, we find a negative and highly statistically significant relation between government control and disproportionality of the electoral system. In majority rule systems (disproportional), governments relinquish more control during privatization compared to those in more proportional systems.

Fiscal federalism is again important in explaining residual power in privatized firms. The coefficient on *Federal* is negative and statistically significant in all eight models, albeit less so for the smaller sample used in the two variations of model [4], which use differences in the financial variables between privatized and matched firms. Overall these findings suggest that countries in which substantial fiscal authority are delegated to sub-national governments have institutions that are favourable for more complete privatization.

Finally, in view of earlier research findings, it is striking that at the end of 2000 firms, firms in the financial industry are likely to be more completely privatized than other firms. The highly statistically significant negative coefficient for the finance sector variable suggests that in developed economies banks are less important in financing politically motivated projects than

they used to be. Overall, government control of privatized firms appears to be relatively unaffected by other sector or by individual firm characteristics.

V. Conclusions

Our study yields important new findings concerning government control over firms after privatization. First, results indicate that across our sample of firms from OECD countries, privatization is less complete than it appears at first glance. By combining information on ultimate voting rights, which is a relatively new concept, with data on special powers granted to state, we show that at the end of 2000, governments are either the largest shareholders or have substantial powers in almost two thirds of our sample of privatized firms. This outcome is in sharp contrast to the standard definitions of privatization in the literature. For example, Shleifer and Vishny (1997) argue that "[i]n most cases, privatization replaces political control with private control by outside investors." Similarly, according to the White House,[15] "[p]rivatization is the process of changing a public entity or enterprise to private control and ownership."

Our results also indicate that a country's legal and government systems impact the degree to which the government relinquishes control in privatized firms. We show that in common law countries, golden shares are frequently used by governments to retain control after privatization. The presence of politicians on the boards of privatized companies in common law countries provides additional evidence of government control. On the other hand, in civil law countries, governments tend to retain large ownership positions, both directly, and indirectly by pyramiding and with dual class shares. Surprisingly, when we ignore which particular mechanism is used, we find no association between a country's legal tradition and the extent of government control over privatized companies. However, overall government control appears to be related to other characteristics of the political system; governments tend to retain more control after privatization in countries with proportional electoral rules and with centralized political authority.

[15] http://www.whitehouse.gov/omb/circulars/a076/a076sa1.html

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Appendix: Data Sources

Panel A: Ownership Data

Country	Data Sources for 1996:	Data Sources for 2000:
Australia	Australian Stock Exchange, 1997, "ASX all Ordinary Index. Company Handbook", Sydney, N.S.W.	http://www.companies.govt.nz/search/cad/dbssiten.main
Austria	Wiener Börse, 1997, "Yearbook 1996", Österreichische Vereinigung für Finanzanalyse, Wien	Wiener Börse, 2001, "Yearbook 2000", Österreichische Vereinigung für Finanzanalyse, Wien
Belgium	Banque Bruxelles Lambert, 1996, "Actionnariat des Sociétés Belges cotées à Bruxelles", Department Etudes et Stratégie.	Banque Bruxelles Lambert, 2000, "Actionnariat des Sociétés Belges cotées à Bruxelles", Department Etudes et Stratégie. http://www.stockexchange.be/enindex.htm
Canada	The Financial Post, 1996, "Survey of Industrials" The Financial Post, 1996, "Survey of Mines and Energy Resources" Statistics Canada , 1996, "Inter-corporate Ownership in Canada."	Company web sites from: http://www.tse.com/
Denmark	Company web sites	Company web sites
Finland	http://www.huginonline.com/ Company web sites from: http://www.hex.fi	Http://www.huginonline.com/ Company web sites from: http://www.hex.fi
France	The Herald Tribune, 1998, "French Company Handbook 1997," SFB-Paris Bourse http://www.bourse-de-paris.fr/fr/market8/fsg830.htm	http://www.bourse-de-paris.fr/fr/index_fs.htm?nc=2&ni=6&nom=marche Company web sites from: http://www.euronext.com/fr/
Germany	Commerzbank, 1997, "Wer gehört zu Wem," 19th edition. Bundesaufsichtsamt für den Wertpapierhandel, "Major Holdings of Voting Rights in Officially Listed Companies," September 1997	Commerzbank, 2000, "Wer gehört zu Wem," 20th edition Bundesaufsichtsamt für den Wertpapierhandel, "Major Holdings of Voting Rights in Officially Listed Companies," December 2000
Greece	Company web sites	http://www.ase.gr/
Ireland	London Stock Exchange, 1997, "The London Stock Exchange Yearbook"	Http://www.hemscott.co.uk/equities/
Italy	CONSOB, 1997, "Bollettino – edizione speciale n. 4/97 – Compagine azionaria delle società quotate in borsa o ammesse alle negoziazioni nel mercato ristretto al 31 dicembre 1996"	Http://www.consob.it/
Japan	Toyo Keizai Shanposha, 1997, "Japan Company Handbook", Tokyo, Japan, Winter Edition. (http://www.toyokeizai.co.jp/english/jch/order/index.html)	Toyo Keizai Shanposha, 2001, "Japan Company Handbook", Tokyo, Japan, Summer Edition.
Mexico	Company web sites from: http://www.bmv.com.mx/bmving/index.html	Company web sites from: http://www.bmv.com.mx/bmving/index.html
Netherlands	Company web sites from: http://www.euronext.com/en/	Company web sites from: http://www.euronext.com/en/
New Zealand	Datex, 1997, "New Zealand Directory of Shareholders"	Datex, 2001, "New Zealand Directory of Shareholders"
Norway	Http://www.huginonline.com/ Company web sites from: http://www.ose.no/english/	http://www.huginonline.com/ Company web sites from: http://www.ose.no/english/

Portugal	Bolsa de Valores de Lisboa, 1997, "Sociedades Cotadas 1996"	Bolsa de Valores de Lisboa e Porto, 2000, "Sociedades Cotadas 1999", CD-rom
Spain	Comision Nacional del Mercado de Valores, 1996 and 1997, "Participaciones significativas en sociedades cotizadas"	http://www.cnmv.es/english/cnmve.htm
Sweden	Http://www.huginonline.com/	http://www.huginonline.com/
Turkey	Company web sites.	The Istanbul Stock Exchange, 2001, "Yearbook of Companies", available at: http://www.ise.org
UK	London Stock Exchange, 1997, "The London Stock Exchange Yearbook"	http://www.hemscott.co.uk/equities/
USA	http://www.sec.gov/cgi-bin/srch-edgar	http://www.sec.gov/cgi-bin/srch-edgar

Ownership information is supplemented with the various companies' privatization prospectuses, Bankscope, the Economist Intelligence Unit country reports (for Government ownership), Extel Financial, Faccio and Lang (2002), Fortune (www.fortune.com), Lexis-Nexis, and Worldscope.

Panel B: Additional Data

Accounting and stock market data:

1. Worldscope; Datastream
2. Company privatization prospectuses and accounts

Data-sets used to track companies (i.e., to identify name changes, M&As, etc .):

1. Thomson Financial Securities Data, SDC Platinum™, Worldwide Mergers & Acquisitions Database
2. Extel Financial
3. Sources listed in Panel A

Political data:

1. Electoral Studies, various years
2. Banks, A.S., T.C. Day and W.R. Muller (2002), Political Handbook of the World 2000-2002 - CSA publications, State University of New York.
3. Zarate's World Political Leaders since 1945 (www.terra.es/personal2/monolith)
4. Library of Congress Country Studies (http://lcweb2.loc.gov/frd/cs/cshome.html),
5. Administration and Cost of Elections (www.aceproject.org)
6. Elections Around the World (www.electionworld.org)
7. Parties and Elections in Europe (www.parties-and-elections.de/indexe.html)
8. Political Reference Almanac (http://www.polisci.com/almanac/nations.htm)

Figure 1. The Voting Rights Structure Of Deutsche Lufthansa (Germany) At The End Of 1996

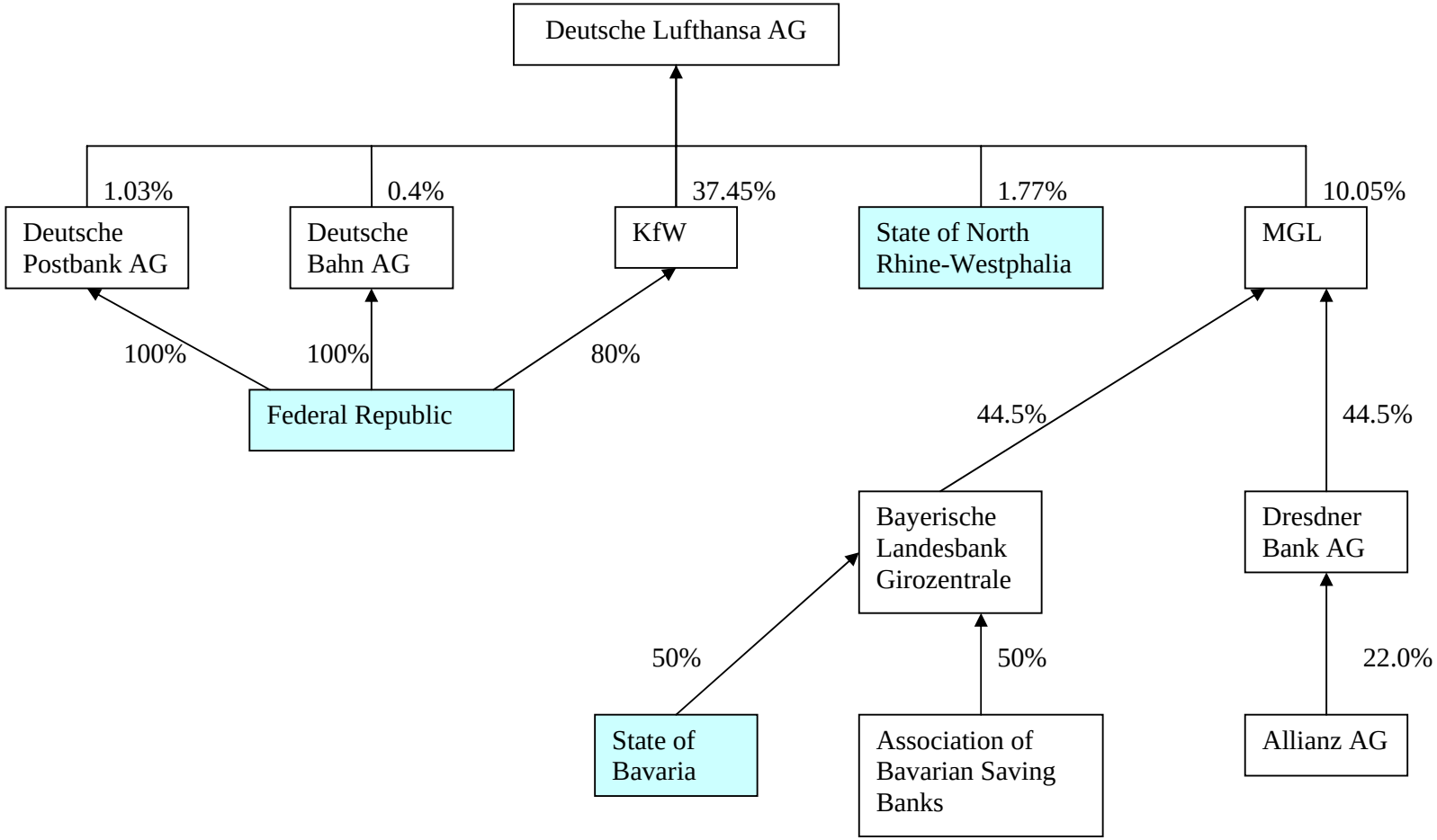

Figure 2. The Voting Rights Structure Of STMicroelectronics NV (France) At The End Of 2000.

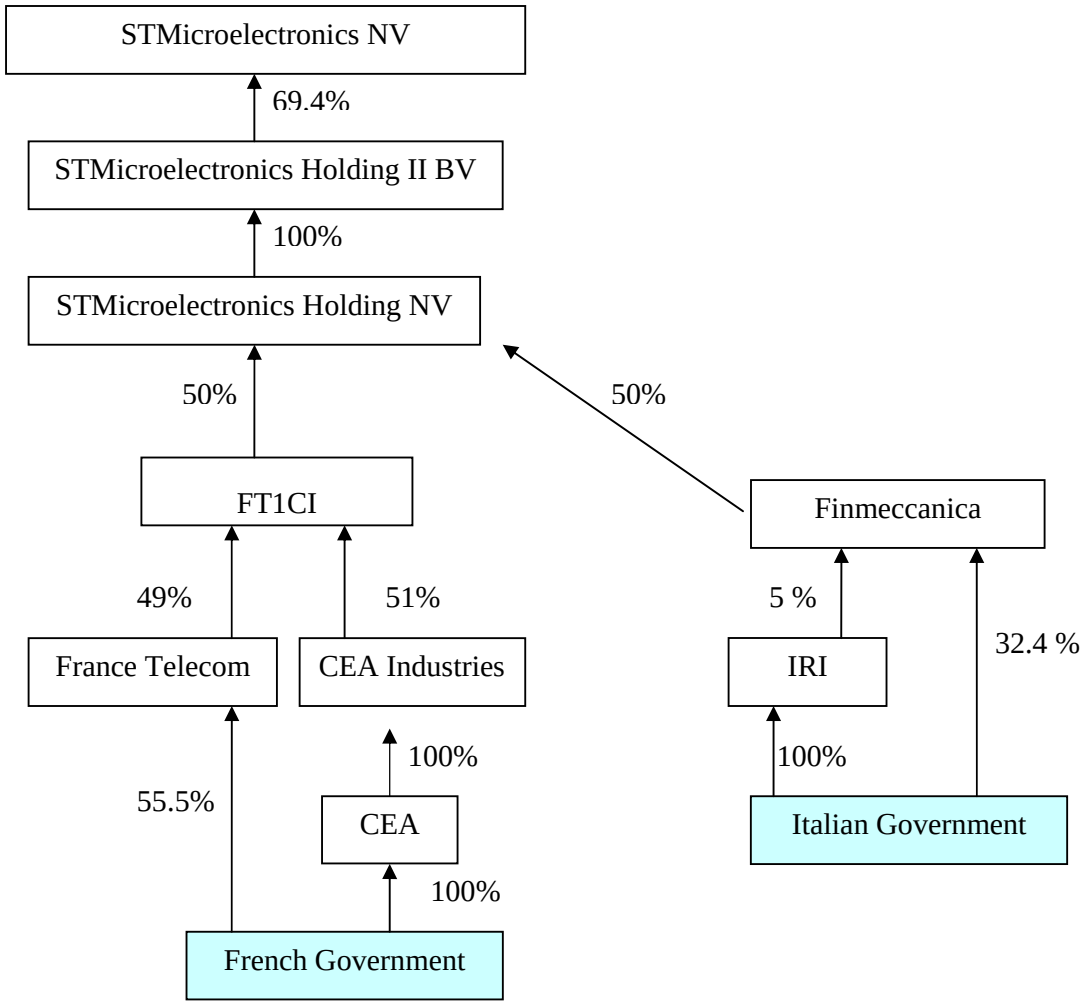

Table I. Distribution Of Owner Type For The Largest Ultimate Owner In Privatized And Matching Firms

Our samples of 141 privatized corporations and 141 matching firms are used to construct this table. The table presents the percentage of firms controlled by different types of large owners, using 10% ownership as the threshold for a large shareholder. Large shareholders are classified into six types. *State:* A national government (domestic or foreign), a local authority (county, municipality, etc.), or a government agency. *Family:* A family (including an individual) or a firm that is unlisted on any stock exchange. *Widely held financial institution:* A financial firm (SIC 6000-6999) that has no shareholder who controls 10% or more of the votes. *Widely held corporation:* A non-financial firm that is widely held, based on the 10% control threshold. *Miscellaneous:* Charities, voting trusts, employees, cooperatives, or minority foreign investors. *Cross-holdings:* Firm Y is controlled by another firm that is controlled by Y, or firm Y directly controls at least 10% of its own stock. Companies that do not have a shareholder who controls at least 10% of votes are classified as *widely held*. [a], [b], and [c] denote statistical significance at the .01, .05, and .10 levels, respectively. Z-statistics for equality of proportions are reported in the table.

Panel A: Privatized Firms

Time period	Number of firms	State	Family	— *of which:*		Widely held corp.	Widely held financial	Miscell.	Cross-holdings	Widely held
				Identified families	*Unlisted firms*					
End of 1996	141	34.75	16.31	2.84	13.48	2.84	17.02	1.42	0.00	27.66
End of 2000	141	29.79	19.86	2.84	17.02	4.26	9.93	4.96	0.71	30.50
Diff '00-'96		-4.96	3.55	0.00	3.55	1.42	-7.09 [c]	3.55 [c]	0.71	2.84
Z-stat		*-0.89*	*0.77*	*0.00*	*0.83*	*0.64*	*-1.74*	*1.69*	*1.00*	*0.52*

Panel B: Matching Firms

Time period	Number of firms	State	Family	— *of which:*		Widely held corp.	Widely held financial	Miscell.	Cross-holdings	Widely held
				Identified families	*Unlisted firms*					
End of 1996	141	0.00	35.46	13.48	21.99	2.13	19.86	4.96	0.00	37.59
End of 2000	141	0.00	28.37	7.09	21.28	8.51	11.35	8.51	1.42	41.84
Diff '00-'96		0.00	-7.09	-6.38 [c]	-0.71	6.38 [b]	-8.51 [b]	3.55	1.42	4.26
Z-stat		.	*-1.28*	*-1.76*	*-0.14*	*2.39*	*-1.97*	*1.19*	*1.42*	*0.73*

Panel C: Difference between Privatized and Matching Firms

Time period	State	Family	— *of which:*		Widely held corp.	Widely held financial	Miscell.	Cross-holdings	Widely held
			Identified families	*Unlisted firms*					
Diff end 1996	34.75 [a]	-19.15 [a]	-10.64 [a]	-8.51 [c]	0.71	-2.84	-3.55 [c]	0.00	-9.93 [c]
Z-stat	*7.70*	*-3.67*	*-3.26*	*-1.87*	*0.38*	*-0.61*	*-1.69*	.	*-1.78*
Diff end 2000	29.79 [a]	-8.51 [c]	-4.26 [c]	-4.26	-4.26	-1.42	-3.55	-0.71	-11.35 [b]
Z-stat	*7.02*	*-1.67*	*-1.64*	*-0.91*	*-1.46*	*-0.39*	*-1.19*	*-0.58*	*-1.98*

Table II. Ultimate Voting Rights

Our samples of 141 privatized corporations and 141 matching firms are used to construct this table. *Largest shareholder voting rights* is the percentage of voting rights ultimately controlled by the largest ultimate shareholder. *Government voting rights* is the percentage of voting rights controlled by a government, when a government is the largest shareholder. *Private voting rights* is the percentage of voting rights controlled by the largest shareholder in the matching firms of companies in which the Government is the largest shareholder. *Firms using control enhancing devices* denotes the percentage of government-controlled firms (or matching peers) in which the largest shareholder enhances his/her voting power by using pyramids, multiple control chains and/or dual class share structures. Pyramids occur when the largest ultimate shareholder owns one corporation through another which he does not totally own. Firm Y is held through multiple control chains if it has an ultimate owner who controls it via a multitude of control chains, each of which includes at least 5% of the voting rights at each link. Dual class shares occur when firms have outstanding stocks with different voting rights. [a], [b], and [c] denote statistical significance at the .01, .05, and .10 levels, respectively.

Panel A: Privatized Firms

	All privatized companies			Companies in which the government is the largest shareholder		
	Number of firms	Largest shareholder voting rights (Mean)	Median voting rights	Number of firms	Government voting rights (Mean)	Firms using control enhancing devices (%)
End of 1996	141	27.80	19.99	49	51.27	53.06
End of 2000	141	25.51	16.16	42	52.18	52.38
Diff '00-'96		-2.29				
T-stat		*-1.26*				

Panel B: Matching Firms

	Number of firms	Largest shareholder voting rights (Mean)	Median voting rights	Number of firms	Private voting rights (Mean)	Firms using control enhancing devices (%)
End of 1996	141	21.10	11.92	49	15.67	30.61
End of 2000	141	26.37	13.40	42	17.76	33.33
Diff '00-'96		5.27 [b]				
T-stat		*2.13*				

Panel C: Difference between Privatized and Matching Firms

	Voting rights (Mean)	Voting rights (Mean)
Diff end 1996	6.70 [b]	35.50 [a]
T-stat	*2.37*	*9.10*
Diff end 2000	-0.86	34.42 [a]
T-stat	*-0.28*	*7.80*

Table III. Use of "Golden Share" Provisions In Privatized Firms

The table reports the percentages of firms in each category using each device. *Golden shares* exist when the government enjoys special powers or if there are other statutory constraints in a privatized company. *Special powers* include (i) the right to appoint board members; (ii) the right to consent to or to veto the acquisition of interests in the privatized company; (iii) other rights such as to consent to the transfer of subsidiaries, dissolution of the company, or even everyday management decisions. *Statutory constraints* include (i) ownership limits; (ii) voting caps; (iii) provisions limiting the nationality of those having an interest in the firm. A firm has an *Ownership limit* if its charter limits ownership rights that can be acquired without Government consent. A firm has a *Voting Cap* if its charter limits the votes that any shareholder may cast at general meetings. A firm has a *Foreign Ownership Limit* if its charter establishes an upper limit on the ownership rights that can be acquired by a foreign investor without Government consent. A firm has a *Foreign Voting Cap* if the firm's charter establishes an upper limit on the votes that any foreign shareholder may cast at general meetings. If a firm's charter prohibits non-residents from acquiring a controlling interest in the privatized company, it is characterized by *National Control*. If a firm's charter requires that the corporate headquarters be located in the country of incorporation or that the board members be citizens of the country of incorporation, this firm has limits on *Location/Directors' Nationality*. *Gov't Controlled* firms are those in which the largest shareholder (at the 10% threshold) is a national government (domestic or foreign), a local authority (county, municipality, etc.), or a government agency. All other firms are classified as *Non-Gov't Controlled*.

	All Privatized Firms (as of end '96)		Gov't Controlled (as of end '96)		Non-Gov't Controlled (as of end '96)		Gov't Controlled (as of end '00)		Non-Gov't Controlled (as of end '00)	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Golden shares	104	62.50	39	56.41	65	66.15	33	57.58	71	64.79
Of which:										
Special Powers:	104	39.42	39	28.21	65	46.15	33	27.27	71	45.07
Ownership Limit	99	33.33	38	18.42	61	42.62	32	18.75	67	40.30
Voting Cap	99	24.24	39	23.08	60	25.00	33	27.27	66	22.73
Foreign Ownership Limit	99	12.12	38	7.89	61	14.75	32	9.38	67	13.43
Foreign Voting Cap	97	7.22	37	5.41	60	8.33	31	6.45	66	7.58
National Control	104	9.52	38	10.53	66	9.09	31	12.90	73	8.22
Location/Directors' Nationality	104	9.62	39	5.13	65	12.31	32	6.25	72	11.11

Table IV. Industry and Country Distribution of Privatized Firms by Control Type

Industry Classification is based on Campbell's categories (1996. p. 316). *Market Cap.* is the average market capitalization of privatized companies in a given industry or country (thousands of US$) at the end of 1996. *Gov't Controlled* firms are those in which the largest shareholder (at the 10% threshold) is a national government (domestic or foreign), a local authority (county, municipality, etc.), or a government agency. *Golden share* is a dummy that takes the value of 1 if the Government enjoys special powers or if there are statutory constraints on privatized companies. *Common Law* indicates that the firm is incorporated in a common law country. *Partisan* is a variable that captures the right-left wing political orientation of the coalition supporting the executive branch of government in the country of incorporation; it ranges from 0 (extreme left) to 10 (extreme right). *Dispr* is the Gallagher index of electoral disproportionality in a country's government. If a firm is incorporated in a country in which states or provinces have authority over taxation, government spending or regulation, it is categorized as *Federal.*

Panel A: Distribution by Industry

Industry classification	Two-Digit SIC Codes	# of Obs.	% of All Privatiz.	Market Cap. (US$ 1,000s)	Gov't Controlled 1996 (%)	Gov't Controlled 2000 (%)	Golden Share (%)
Basic industries	10, 12, 14, 24, 26, 28, 33	13	9.2	2,788,598	53.85	53.85	60.00
Capital goods	34, 35, 38	4	2.8	2,302,681	50.00	25.00	33.33
Construction	15-17, 32, 52	3	2.1	5,074,864	33.33	33.33	50.00
Consumer durables	25, 30, 36, 37, 50, 55, 57	15	10.6	4,294,365	40.00	40.00	60.00
Finance/real estate	60-69	34	24.1	3,354,805	17.65	17.65	38.10
Food/tobacco	1, 9, 20, 21, 54	5	3.5	3,008,677	40.00	40.00	50.00
Leisure	27, 58, 70, 78, 79	3	2.1	1,990,081	0.00	0.00	100.00
Petroleum	13, 29	9	6.4	19,304,327	33.33	33.33	66.67
Services	72, 73, 75, 80, 82, 87, 89	2	1.4	1,478,758	50.00	50.00	50.00
Textiles/trade	22, 23, 31, 51, 53, 56, 59	1	0.7	2,162,774	100.00	0.00	0.00
Transportation	40-42, 44, 45, 47	17	12.1	3,877,685	47.06	47.06	64.29
Utilities	46, 48, 49	35	24.8	13,307,290	34.29	20.00	85.19

Panel B: Distribution by Country

Country	# of Obs.	% of All Privatizations	Market Cap. (US$ 1,000s)	Gov't Controlled 1996 (%)	Gov't Controlled 2000 (%)	Golden Share (%)	Country attributes			
							Common Law	Dispr	Partisan	Federal
Australia	6	4.3	2,362,704	0.0	0.0	100.0	1	10.47	6.73	1
Austria	11	7.8	1,208,097	81.8	81.8	25.0	0	1.06	5.40	1
Belgium	2	1.4	1,704,919	50.0	50.0	100.0	0	3.66	4.98	1
Canada	9	6.4	2,218,113	22.2	22.2	87.5	1	17.67	5.10	1
Denmark	2	1.4	4,052,246	100.0	50.0	50.0	0	1.57	4.49	0
Finland	4	2.8	1,366,844	100.0	100.0	25.0	0	3.65	5.53	0
France	20	14.2	7,344,097	30.0	25.0	33.3	0	31.11	7.32	1
Germany	10	7.1	12,416,954	50.0	50.0	40.0	0	1.78	6.69	1
Greece	2	1.4	3,749,041	100.0	100.0	100.0	0	8.24	4.60	0
Ireland	2	1.4	1,238,265	0.0	0.0	100.0	1	2.86	5.62	0
Italy	12	8.5	7,626,273	50.0	33.3	50.0	0	7.53	4.56	1
Japan	4	2.8	37,368,888	75.0	75.0	33.3	0	6.87	7.51	0
Mexico	1	0.7	1,641,726	0.0	0.0	100.0	0	.	.	1
Netherlands	3	2.1	15,651,368	33.3	33.3	100.0	0	1.05	5.37	0
New Zealand	2	1.4	4,214,644	0.0	0.0	100.0	1	17.19	7.30	0
Norway	6	4.3	845,287	50.0	33.3	100.0	0	3.95	4.13	0
Portugal	9	6.4	1,280,305	11.1	11.1	80.0	0	4.46	4.88	0
Spain	5	3.5	12,161,026	40.0	20.0	50.0	0	5.92	6.33	0
Sweden	3	2.1	1,939,769	66.7	33.3	100.0	0	1.18	4.08	0
Turkey	3	2.1	236,935	0.0	0.0	100.0	0	.	.	0
U.K.	24	17.0	10,105,532	0.0	0.0	85.0	1	13.55	7.71	0
USA	1	0.7	800,036	0.0	0.0	0.0	1	8.08	4.15	1
Overall sample	141	100.0	6,884,500	34.8	29.8	62.5				

Panel C: Country Attributes and Government Control of Privatized Firms

Country Attributes	# of Obs.	Market Cap. (US$ 1,000s)	Gov't Controlled 1996 (%)	Gov't Controlled 2000 (%)	Golden Share (%)
Common Law	44	6,554,042	4.6	4.6	86.5
Not Common Law	97	7,034,399	48.5	41.2	49.2
Difference		*-480,357*	*-43.9* [a]	*-36.6* [a]	*37.3* [a]
Dispr ≥ median	76	6,997,324	21.1	17.1	66.7
Dispr < median	61	7,156,810	54.1	47.6	52.6
Difference		*-159,486*	*-33.0* [a]	*-30.5* [a]	*14.1*
Partisan ≥ median	71	10,513,670	22.5	19.7	62.3
Partisan < median	66	3,361,994 [a]	50.0	42.4	60.4
Difference		*7,151,676*	*-27.5* [a]	*-22.7* [a]	*1.9*
Federal	65	7,604,881	29.2	24.6	77.3
Not Federal	76	6,268,386	39.5	34.2	51.7
Difference		*1,336,495*	*-10.2*	*-9.6*	*25.6* [a]

[a], [b], and [c] denote significance in the difference between the two groups (e.g., Common Law = 1 and Common Law = 0) at the .01, .05 and .10 levels, respectively.

Table V. Tobit Regressions Explaining Governments' Voting Rights

This table reports the estimated coefficients and associated standard errors (in parentheses) of Tobit estimations. The dependent variable is *State voting rights*, the ultimate voting rights held by governments in firm *i* in year *t*. The individual effects are assumed to be normally distributed (random-effects model). *Common Law* is a dummy that equals 1 for companies in common law countries. *Partisan* is a variable capturing the right-left wing political orientation of the executive branch of government; it ranges from 0 (extreme left) to 10 (extreme right). *Dispr* is the Gallagher index of electoral disproportionality in a country. If a firm is incorporated in a country in which federal states or provinces have authority over taxation, government spending or regulation, it is categorized as *Federal*. *Debt Ratio* is the ratio of total public debt to GDP. *Petroleum*, *Transportation*, *Utilities*, and *Finance* are sector dummies based on two-digits SIC codes (see Table IV). *Leverage* is a firm's debt-to-equity ratio. *MB* is the market-to-book ratio. *ROE* is the return on equity. *Size* is the (log) of total assets. *Benefit* is a proxy for the non-pecuniary benefits of control. *Year Dummies* include a set of time dummies for 1996-2000 (coefficients are not reported). All time varying covariates are lagged one year. In regression (3) firm-level financial variables are measures for the privatized company, while in regression (4), variables are constructed as differences between the values of the privatized and the matching firm. The Wald χ^2 tests the null that the parameters are jointly non-significant. [a], [b], and [c] denote statistical significance at the .01, .05 and .10 levels, respectively.

	[1]	[2]	[3]	[4]
Constant	0.136 [c]	0.265 [a]	0.422 [a]	0.044
	(0.070)	(0.084)	(0.131)	(0.155)
Common Law	-0.392 [a]	-0.524 [a]	-0.511 [a]	-0.481 [a]
	(0.052)	(0.060)	(0.062)	(0.083)
Partisan	-0.015 [c]	-0.015 [c]	-0.022 [a]	-0.015
	(0.008)	(0.008)	(0.008)	(0.010)
Dispr	-0.004 [c]	-0.004 [b]	-0.005 [b]	-0.0033
	(0.002)	(0.002)	(0.002)	(0.002)
Federal	-0.214 [a]	-0.237 [a]	-0.237 [a]	-0.182 [a]
	(0.045)	(0.060)	(0.059)	(0.070)
Debt ratio	0.125	0.081	0.060	0.000
	(0.078)	(0.077)	(0.071)	(0.112)
Petroleum		0.048	0.088	0.206 [a]
		(0.061)	(0.060)	(0.078)
Transportation		0.089	0.088	0.026
		(0.079)	(0.078)	(0.118)
Utilities		-0.014	0.050	0.079
		(0.059)	(0.059)	(0.069)
Finance		-0.277 [a]	-0.256 [a]	-0.410 [a]
		(0.057)	(0.058)	(0.085)
Leverage			0.016	0.082
			(0.067)	(0.064)
MB			-0.022 [b]	-0.042 [a]
			(0.009)	(0.015)
ROE			-0.001 [a]	-0.001 [a]
			(0.000)	(0.000)
Size			-0.010	0.031 [b]
			(0.013)	(0.015)
Benefit			0.004	0.012 [a]
			(0.003)	(0.003)
Year dummies	Yes	Yes	Yes	Yes
Obs.	524	524	524	288
Left-censored obs.	328	328	328	185
Right-censored obs.	5	5	5	4
Log Likelihood	-23.253	-11.331	-1.241	3.902
Wald χ^2	130.65 [a]	155.78 [a]	183.54 [a]	164.09 [a]

Table VI. Probit Regressions Explaining the Presence of Golden Shares

This table reports the estimated coefficients and associated standard errors (in parenthesis) of Probit estimations. The dependent variable is an indicator variable that equals 1 when at least one *Golden Share* provision (see Table III) is observed in company *i* in year *t*. The individual effects are assumed to be normally distributed (random-effects model). *Common Law* is a dummy that equals 1 for companies in common law countries. *Partisan* is a variable capturing the right-left wing political orientation of the executive branch of government; it ranges from 0 (extreme left) to 10 (extreme right). *Dispr* is the Gallagher index of electoral disproportionality in a country. If a firm is incorporated in a country in which federal states or provinces have authority over taxation, government spending or regulation, it is categorized as *Federal. Debt Ratio* is the ratio of total public debt to GDP. *Petroleum*, *Transportation*, *Utilities*, and *Finance* are sector dummies based on two-digits SIC codes (see Table IV). *Leverage* is a firm's debt-to-equity ratio. *MB* is the market-to-book ratio. *ROE* is the return on equity. *Size* is the (log) of total assets. *Benefit* is a proxy for the non-pecuniary benefits of control. *Year Dummies* include a set of time dummies for 1996-2000 (coefficients are not reported). All time varying covariates are lagged one year. In regression (3) firm-level financial variables are measures for the privatized company, while in regression (4), variables are constructed as differences between the values of the privatized and the matching firm. The percentage of matched observations is reported as a measure of goodness-of-fit. The Wald χ^2 tests the null that the parameters are jointly non-significant. [a], [b], and [c] denote statistical significance at the .01, .05 and .10 levels, respectively.

	[1]	[2]	[3]	[4]
Constant	-0.468	-0.190	-1.187	-9.352 [b]
	(1.870)	(1.980)	(3.455)	(4.664)
Common Law	5.590 [a]	5.226 [a]	4.944 [a]	5.332 [a]
	(1.120)	(1.165)	(1.215)	(1.599)
Partisan	0.013	-0.083	-0.032	0.216
	(0.222)	(0.229)	(0.233)	(0.351)
Dispr	-0.485	-0.565	-0.570	0.083
	(0.457)	(0.485)	(0.493)	(0.687)
Federal	1.294	1.524	1.419	1.342
	(1.195)	(1.246)	(1.256)	(1.856)
Debt ratio	-0.731	-1.169	-0.970	2.737
	(1.920)	(1.965)	(1.996)	(3.003)
Petroleum		0.735	0.347	1.276
		(1.419)	(1.515)	(1.742)
Transportation		0.884	1.300	1.885
		(1.320)	(1.358)	(2.132)
Utilities		2.539 [b]	2.019	4.079 [b]
		(1.225)	(1.301)	(1.723)
Finance		-1.494	-1.325	-1.389
		(1.271)	(1.530)	(1.848)
Leverage			-1.817	-0.837
			(1.859)	(1.871)
MB			0.105	0.342
			(0.220)	(0.493)
ROE			0.003	0.007
			(0.012)	(0.009)
Size			0.160	0.366
			(0.319)	(0.325)
Benefit			-0.052	0.067
			(0.064)	(0.096)
Year dummies	Yes	Yes	Yes	Yes
Obs.	386	386	386	210
Matched	71.46%	75.82%	78.87%	70.59%
Log Likelihood	-75.912	-70.931	-69.931	-41.134
Wald χ^2	26.32 [a]	31.68 [a]	33.97 [b]	24.44

Table VII. Probit Regressions Explaining the Combination of Voting Rights and Golden Shares

This table reports the estimated coefficients and associated standard errors (in parenthesis) of Probit estimations. *Goldown10* and *Goldown20* are indicator variables that equal 1 when at least one golden share provision is observed or ultimate government voting rights exceed 10 or 20 percent of outstanding rights in company *i* in year *t*. The individual effects are assumed to be normally distributed (random-effects model). *Common Law* is a dummy that equals 1 for companies in common law countries. *Partisan* is a variable capturing the right-left wing political orientation of the executive branch of government; it ranges from 0 (extreme left) to 10 (extreme right). *Dispr* is the Gallagher index of electoral disproportionality in a country. If a firm is incorporated in a country in which federal states or provinces have authority over taxation, government spending or regulation, it is categorized as *Federal*. *Debt Ratio* is the ratio of total public debt to GDP. *Petroleum, Transportation, Utilities*, and *Finance* are sector dummies based on two-digits SIC codes (see Table IV). *Leverage* is a firm's debt-to-equity ratio. *MB* is the market-to-book ratio. *ROE* is the return on equity. *Size* is the (log) of total assets. *Benefit* is a proxy for the non-pecuniary benefits of control. *Year Dummies* include a set of time dummies for 1996-2000 (coefficients are not reported). All time varying covariates are lagged one year. In regression (3) firm-level financial variables are measures for the privatized company, while in regression (4), variables are constructed as differences between the values of the privatized and the matching firm. The percentage of matched observations is reported as a measure of goodness-of-fit. The Wald χ^2 tests the null that the parameters are jointly non-significant. [a], [b], and [c] denote statistical significance at the .01, .05 and .10 levels, respectively.

	Goldown10 (>10%)				*Goldown20* (>20%)			
	[1]	[2]	[3]	[4]	[1]	[2]	[3]	[4]
Constant	3.258 [c]	4.238 [b]	2.895	-2.829	3.619 [b]	4.290 [b]	3.167	-4.932
	(1.791)	(1.969)	(2.872)	(4.607)	(1.843)	(1.935)	(2.983)	(4.800)
Common Law	1.203	0.883	1.008	1.453	1.833 [c]	1.403	1.527	1.684
	(0.923)	(1.008)	(1.047)	(1.597)	(1.048)	(1.007)	(1.048)	(1.455)
Partisan	0.254	0.208	0.238	0.430	0.167	0.167	0.126	0.533
	(0.217)	(0.218)	(0.228)	(0.386)	(0.222)	(0.225)	(0.234)	(0.382)
Dispr	-0.129 [a]	-0.118 [a]	-0.140 [a]	-0.127 [c]	-0.177 [a]	-0.167 [a]	-0.189 [a]	-0.204 [a]
	(0.038)	(0.039)	(0.044)	(0.067)	(0.497)	(0.040)	(0.045)	(0.070)
Federal	-2.334 [b]	-2.141 [b]	-2.281 [b]	-2.626	-2.340 [b]	-2.010 [c]	-2.260 [b]	-3.201
	(1.125)	(1.093)	(1.127)	(2.026)	(1.142)	(1.113)	(1.135)	(2.069)
Debt ratio	-2.322	-2.223	-2.492	-2.197	-2.499	-2.379	-2.728	-2.659
	(1.787)	(1.832)	(1.898)	(3.193)	(1.809)	(1.842)	(1.924)	(3.274)
Petroleum		-0.647	-0.649	-0.791		0.105	0.253	0.705
		(1.436)	(1.553)	(1.869)		(1.445)	(1.560)	(1.844)
Transportation		-0.655	-0.461	-0.884		-0.105	0.115	0.679
		(1.406)	(1.485)	(2.515)		(1.438)	(1.516)	(2.596)
Utilities		0.435	0.475	0.579		1.060	1.192	2.098
		(1.010)	(1.140)	(1.782)		(1.020)	(1.152)	(1.812)
Finance		-3.187 [a]	-3.067 [a]	-5.399 [a]		-2.628 [b]	-2.422 [b]	-3.480 [c]
		(1.027)	(1.196)	(1.905)		(1.055)	(1.221)	(1.850)
Leverage			-0.789	0.126			-0.481	-0.818
			(1.562)	(2.185)			(1.636)	(2.254)
MB			0.019	0.051			0.067	0.245
			(0.239)	(0.415)			(0.257)	(0.502)
ROE			0.001	0.007			0.002	0.008
			(0.011)	(0.009)			(0.012)	(0.009)
Size			0.171	0.692 [b]			0.114	0.722 [b]
			(0.262)	(0.327)			(0.272)	(0.344)
Benefit			0.034	0.153			0.044	0.213 [c]
			(0.050)	(0.110)			(0.053)	(0.120)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	428	428	428	233	427	427	427	233
Matched	80.28%	85.26%	86.06%	83.27%	78.88%	83.67%	84.26%	82.27%
Log likelihood	-77.386	-70.913	-70.379	-34.989	-75.438	-69.847	-69.279	-36.227
Wald χ^2	17.73 [b]	30.16 [a]	29.96 [b]	19.48	20.81 [b]	32.53 [a]	32.99 [b]	22.19

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