From social to private ownership:

Multiple blockholders in Slovenian unlisted firms[1]

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Abstract

This paper studies the ownership structure of unlisted privatized firms in Slovenia. On the basis of official ownership records for all non-financial firms over a six year period (1999-2004), we explore the factors responsible for the concentration of ownership, and for the dissolution of multiple blockholder structures that these firms were assigned at privatization. We observe significant path-dependence: patterns of ownership and control are in part determined by the persistence of the initial privatization owners (state funds, privatization investment funds, employees and managers) as firm blockholders. We also find that the largest owner concentrates less in larger, more risky and better performing firms. Multiple blockholders remain present in the firms in which the two largest owners are of the same identity, which presumably makes it easier for them to control in coalition and share private benefits.

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1. Introduction

Research interest in corporate ownership is not new. Vast theoretical and empirical research illustrates how the allocation of ownership and voting power in a corporation shapes the interactions between managers and shareholders, and between individuals within the

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shareholder group itself, and how this in turn influences the choice of corporate goals and the value of the firm (Pedersen an Thomsen, 1997). Empirical studies as well document that a variety of ownership patterns exist, mostly distinguishing between dispersed ownership in the US and UK, and the firms with one large controlling owner in Continental Europe and developing countries (e.g. Barca and Becht, 2001; Claessens et al., 2000). Recently however, researchers call attention to a non-negligible number of firms whose ownership structure is more complex. For example, more than 30 percent of publicly listed firms in Europe have at least two large owners-blockholders[5] (Laeven and Levine, 2008). These multiple blockholder firms have distinct governance characteristics, and their market value differs substantially from the value of the firms with one large owner. While the existing empirical work mostly looks at the implications of multiple blocks for firm performance (Laeven and Levine, 2008; Maury and Pajuste 2005), less is known about the emergence and stability of such structures in both listed and unlisted firms.

The co-existence of several blockholdings frequently occurs by design rather than historical accident, i.e. after an IPO or in privatization when governments bring in a number of strategic investors, along with the dissemination of the stock among the general public and employees (Bloch and Hege, 2001).[6] The fact that many companies today have more than one large shareholder suggests that (in some circumstances) blockholders might co-exist even when they are allowed to freely trade their shares. The purpose of our study is to shed new light on this issue by examining the factors accountable for the emergence of different ownership patterns in unlisted firms after their privatization. Our empirical analysis is based on a privatization model in a former communist country - Slovenia, where (by design) a multiple blockholder ownership structure emerged in every privatized firm. By law, institutional investors (i.e. state funds and privatization investment funds) obtained minority blocks in all firms, while the remaining proportion of ownership was distributed among small shareholders, both firm managers, employees (insiders), and outside owners (individuals, industrial corporations). Six years after the official conclusion of privatization (2004), only thirty percent of these firms however remain with two or more shareholders, none of them holding the majority of the voting rights. In other firms the largest blockholder bought-out other blocks, or acquired the majority of the ownership rights by gathering shares from small shareholders. This diversity together with the type of

[5] In this paper, the term blockholder stands for any owner holding at least 5 percent of the firm ownership or voting rights.

[6] For example, two years before completing the privatization with an IPO, the Spanish government sold the equity blocks in Iberia to a domestic bank representing local roots, and to airline alliance partners

privatization model provides us with a setting that is well suited for the purpose of our analysis. We search for the answers to the following questions: How does the identity of the main shareholders, reflecting their monitoring ability and taste for the extraction of private benefits, and the interactions between them determine the redistribution of equity in the post-privatization period? In what firms does the largest shareholder obtain control by squeezing out other owners? In what firms does she share control with other large owners, i.e. what factors explain the persistence of multiple blocks in these firms?

Before transition, Slovenian firms had the so-called social ownership, which meant that the firms were officially owned by the society as a whole. In practice however, firm governance was exercised jointly by state officials (politics), managers and workers (Prašnikar et al., 2006). This pre-transition pattern of control also influenced the Slovenian approach to privatization, which assigned the state and employee[7] owners a strong role in firm ownership and governance. As in other countries in transition it was however expected that the secondary trading on the stock market would transfer assets to new owners, who would respond to economic signals with improved capital allocation, rapidly producing efficient ownership structures (e.g. Jones and Mygind, 1999). However, these expectations mostly ignored the possibility that the private interests of the initial owners in an imperfectly Coasian world might create a path-dependence in the country's ownership structure, and preserve the control of the existing parties, even when inefficient. In other words, the initial privatization owners might have the incentive and ability to prevent a change in ownership when such a change would reduce their rents whereas some efficiency gains would be captured by others (Bebchuk and Roe, 1999). This rent-seeking behavior could be connected in particular to owners that have other stakes in the firm to protect, such as employee owners who aim to preserve employment (Aghion and Blanchard, 1998), or politicians, which might use the corporations to build political power. Because of this so-called path-dependence, the differences in the ownership structure across firms might be in part determined by the behavior of the initial privatization owners, i.e. their decision and ability to maintain power in selected firms.

This is indeed what we find. We employ a rich data set including information on ownership share and blockholder identity for all unlisted privatized firms in Slovenia over 1999-2004 period, and a dynamic linear estimator to study the determinants of ownership concentration and

British Airways and American Airlines. Another block was set aside for the employees (Bloch and Hege, 2001:2).

[7] For simplicity, we use the term "employee owners" and "employee shares" to label firm managers, employees, former employees, and their ownership share in the firm.

of the distribution of ownership among other blockholders. We observe that a slower ownership concentration can be associated with the (remaining) presence of the state fund as the largest owner, and with the persistence of privatization investment funds (PIFs[8]) and employee owners among other shareholders. PIFs tend to stick to better performing firms and to firms with a higher level of tangible assets, while employee ownership remains higher in less risky firms and in the firms with a lower number of employees. Only after controlling for the identity and ownership of these owners, we find a significant impact of firm-specific characteristics on the level of ownership concentration, as suggested by the literature. Ownership concentrates more in smaller firms, less risky firms and in the firms with poorer performance and presumably, a stronger need for restructuring. On the other hand, these factors have little impact on the persistence of multiple blocks in the privatized firms. We however find that ownership distributes more equally in the firms with a higher share of PIFs and employee owners among non-controlling owners: the role of PIFs in "supporting" the co-existence of multiple blocks is particularly strong in the firms with a majority shareholder. Besides this path-dependence, our results indicate that the co-existence of multiple blockholders in Slovenian unlisted firms also results from a redistribution of investors toward firms with similar owners. We argue that similar or homogenous owners find it easier to control in coalition. Theoretical and empirical evidence suggest that such coalition formation may happen, particularly in poor institutional environment and in firms that are not listed on the stock market (Zwiebel, 1995; Faccio et al., 2001; Gomes and Novaes, 2005).

This paper brings a number of contributions to the literature on corporate ownership. First, we provide new evidence on the firm ownership structure in transition economies undertaking large-scale privatization programs. Notwithstanding the extensive research on the effects of privatization in transition, few studies explore the ownership structure in the years following firm privatization. Our paper fills this gap employing more advanced estimation techniques on a larger panel of data and at later stages of transition to identify new factors that explain the differences in the ownership across firms.[9] Second, to the best of our knowledge this is one of the few papers studying the ownership structure of unlisted firms. Third, assuming that our

[8]The privatization investment funds (PIFs) are special investment funds that were established for the purpose of privatization. The funds collected voucher certificates from the public and then exchanged them for company shares. For more, see Simoneti et al. (1999).

[9]Related studies on ownership structure in transition include Jones and Mygind (1999), Bishop et al. (2002), Mygind et al. (2006), Sprenger (2006), and Grosfeld and Hashi (2007). These studies are based on limited longitudinal ownership information and thus cannot properly account for unobserved heterogeneity and the dynamic nature of ownership. In addition, they mostly refer to the early period of transition (i.e. 1999 or before). As Bishop et al. (2002) claim, measuring outcomes at that stage may be premature and making definitive conclusions may need to await further progress with transition.

results can be generalized to other countries, this study provides new evidence on the persistence of multiple blockholder structures and responds to the need for more research on these ownership patterns (e.g. Laeven and Levine, 2008). Finally, our results provide empirical support to the theory of path-dependence in firm ownership structures proposed by Bebchuk and Roe (1999). We show that, notwithstanding the post-privatization trade in shares, the ownership structure of Slovenian corporations has in part evolved under the influence of the initial distribution of shares, of the incumbent owners and of the rules that enabled such structures to persist.

The remainder of this paper is made up of four parts. Section 2 provides an overview of the Slovenian privatization, of the relevant literature and of the main hypotheses. The empirical model, data and estimation issues are presented in Section 3. We discuss our empirical results in Section 4. We conclude in Section 5.

2. Privatization and corporate ownership in the post-privatization period

2.1 Slovenian privatization model and equity redistribution after privatization

Slovenian privatization model resulted as a compromise solution between two competing concepts, the Korže-Mencinger-Simoneti (KMS) code and the Sachs-Peterle-Umek (SPU) code.[10] KMS code proposed a decentralized and gradual privatization, gave the initiative to managers and employees and tried to observe the economic and social legacies of the previous system. Its proponents believed that, to avoid the adverse effects of privatization in transition process, the existing property rights, particularly those of managers, ought to be strengthened rather than weakened or destroyed, and that insiders might be the best transitional owners (Mencinger, 2006). KSM was however politically unattractive since it did not provide for a free distribution of shares; the citizens of Slovenia would be only entitled to discounts on the purchase of shares up to a certain value, and additional discounts would be awarded to employees. The SPU code proposed a mass, centralized and distributive privatization. It argued for a major role of the government in carrying the privatization procedures, and a two-stage[11] free distribution of shares to citizens with the emergence of financial institutions as the new monitors of the privatized firms. The controversy between the two approaches soon proved to be a political rather than an economic

[10]The preparation for privatization however began already in the late eighties with the adoption of codes regulating economic and labor relations (in years 1988 and 1989), and codes allowing for a gradual transformation of socially owned firms into mixed companies (1990). The paragraph explaining the background of Slovenian privatization follows Mencinger (2006).

issue, the roots being the resulting control of the economy. The KMS privatization would presumably enable the control to remain in the hands of managers - the old economic and political elite. The SPU model would transfer the control to the government and the newly emerging economic and political elite (Mencinger, 2006:68).

The Privatization Law[12] was finally adopted on November 11, 1992 encompassing features of both approaches: decentralization and gradualism from the KMS code, and distributive privatization by vouchers[13] to all citizens from the SPU code. It required that 20 per cent of each firm's capital was allocated to state funds (Pension Fund and Restitution Fund, 10 percent each), while 20 percent of each firm's capital was auctioned off to newly establish institutional investors known as privatization investment funds (PIFs).[14] Another 20 percent of the shares had to be allocated to inside owners (managers, employees, former employees and their relatives) in exchange for vouchers. These shares were registered and could not be transferred before 2 years after their distribution. Finally, the firms could then freely decide on how to privatize the remaining 40 percent of their capital. They could sell it through management and employee buy-outs or, alternatively, through public tenders, auctions, and public offerings of shares.[15] The sale to employees and managers had to be implemented through special 4-year scheme and required the participation of at least one third of employees. The shares were sold at a 50% discount. Most of the companies opted for the employee buy-out and only about one tenth of the companies under privatization (the largest ones) used public offering of shares, and subsequently listed on the stock exchange.[16] In addition to the public offering, Slovenian citizens could participate in privatization by tendering their vouchers in exchange for shares of their employer or PiFs.

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[11] Firm shares would be transferred to financial intermediaries, whose shares would in turn be distributed free of charge to all Slovenian citizens.

[12] *Ownership Transformation Act*, *Official Gazette of the Republic of Slovenia, No. 54, 1992 and further changes and amendments.*

[13] For privatization purposes, the Slovenian government issued 2,000,900 voucher certificates representing approximately 40 percent of the total capital in privatization. The vouchers were distributed to the Slovenian citizens according to their age, and could be exchanged for shares of companies of PIFs.

[14] The intent of auctioning, the package and the initial share price were publicly announced. The law allowed no preference to specific bidders (*Regulation of the program and on the actions on the individual company ownership transformation, Official gazette of the Republic of Slovenia, No. 13/1993*). To the best of our knowledge, besides auctions to PIFs no other shares were auctioned.

[15] A firm could for example choose to sell 20 percent to inside owners and 20 percent to outsiders. In such a case, the employees and management (insiders) would end up holding 40 percent of the firm's shares (20+20), while outside investors would get 20 percent.

[16] Few new listings on the Ljubljana Stock Exchange took place after the conclusion of privatization in 1998. These new listings relate to banks or privatization investment funds (*Ljubljana Stock Exchange annual publications*).

Foreign investors could also participate in the privatization process, either as employees or as investors.[17]

The provisions of the law applied to all companies except for the companies that were of special interest to the society, such as banks and insurance companies, infrastructure companies, gaming and lotto companies, cooperatives, companies under bankruptcy and companies privatized under the Forestry Act. As a first step, each company had to prepare a privatization program consisting of a description of the privatization method, the plan for organizational and financial restructuring to be undertaken before privatization, and audited financial statements as the basis for the determination of the share price. Both the price[18] and the privatization program had to be approved by the Privatization Agency and, once accepted, implemented within 1 year period. After a final approval by the Privatization Agency, the firm inscribed at the Court Register. The privatization process lasted for more than 6 years.[19] Most of the companies privatized during 1995 and subsequently registered their shares at the Central Securities Clearing and Deposit Corporation (CSCDC), which provides the first official track of the ownership changes in the privatized firms. Unfortunately, no official ownership data are available for the two-three year period prior to the formal end of privatization (1998). The limited empirical evidence for this period relies on questionnaire data, small samples of privatized firms, and only reports the aggregate ownership share of different shareholder groups. For example, for 130 Slovenian companies in the period 1996-1998 Domadenik et al. (2000) observe a decline in the total ownership share of insiders (from 24.86 to 22.87 percent) but a slight increase in managerial ownership (from 1.8 to 2.8 percent). State funds reduced their average share by 5 percentage points, while privatization investment funds increased their ownership by 4 percentage points. Most prominent is the increase in the share of domestic industrial corporations, from 10.72 to 17.21 percent. For a different sample of 183 firms Simoneti and Gregorič (2004) note a more active trading of shares of the unlisted firms particularly after year 1999. By 1999, they report a decline in the percentage of shares held by the state and state funds (by more than 10 percentage points), while the share of the domestic

[17] However, foreign acquisitions exceeding 10 million EUR required the approval of the Slovenian government (*Decision of the criteria for the agreement on the sale and purchase of shares to foreign entities, Official Gazette of the Republic of Slovenia, No. 1/1995*).

[18] The price was the same for all the buyers except for the participants in the internal buyouts.

[19] The actual start of privatization was slow. In 1993, only 31 privatization programs were approved by the Privatization Agency, and by the end of 1995 only 350 (out of 1446) privatizations were completed (Mencinger, 2006). The first privatized company listed on Ljubljana Stock Exchange on January 8, 1996. This date also represents the beginning of the operations of the Central Securities Clearing and Deposit Corporation–CSCDC (www.ljse.si). The Privatization Agency gave his last approval in October 1998 and with this date, the Slovenian privatization process officially concluded.

strategic investors and domestic financial investors increased (by 8 and 5 percentage points respectively). They also observe an increase in the shares held by managers, particularly in the firms with a smaller share of employee ownership. Simoneti and Gregorič (2004) evaluate these changes by gathering the perceptions of the firms' chief executives about the "optimality" of the ownership structure at that point in time. The responses of the CEOs clearly indicate that the consolidation of ownership was far from concluded and that further redistribution of ownership was to be expected after 1999. The managers planned to increase their ownership share (by approximately 10 percentage points), and to motivate increases in the ownership of outside strategic investors, while they anticipated a further withdrawal of the state funds and PIFs.

Substantial redistribution of ownership indeed marks the years after 1999. Our empirical analysis focuses on the period 1999-2004, and for these years we observe a continuing decline in the shares held by state funds and employee owners (by 10 and 5 percentage points respectively). Besides the changes in the aggregate shares held by different investor groups, interesting patterns emerge also with regards to the percentage of shares held by the single largest shareholder. The average size of the largest block in unlisted firms increased for more than 15 percentage points, up to nearly 53 percent in 2004.[20] The increase in the ownership[21] concentration is accompanied by changes in the identity of the largest owners, reflecting an increasing presence of domestic industrial corporations and a (gradual) withdrawal of the state funds. The participation of foreign owners has increased over time but remains limited, primarily due to a generally negative attitude towards foreign ownership in Slovenia. Descriptive statistics for the ownership share of the first three largest shareholders and the distribution of firms by the identity of the largest owner in 1999 and 2004 are presented in Table 1 and Table 2.

[Table 1 and Table 2]

In spite of an increasing concentration of ownership in some firms, a relevant share of firms in 2004 remains owned by a number of blockholders. To illustrate this, we present the distribution of firms by the size of the first and second largest blocks in Table 3. As evidenced, 21.2 percent

[20]The numbers reported refer to a smaller sample of 347 unlisted firm that are represented in our database every year from 1999 to 2004 (balanced panel).

[21] A difference between the ownership and voting rights of an owner might arise through dual-class shares, preference shares, voting caps, pyramiding etc. One-share one-vote rule generally applies in Slovenia. Therefore, we do not distinguish between ownership (cash flow) and voting rights. We cannot track the ultimate owner for the firms that are majority owned by other domestic industrial corporations. In many cases these industrial owners are firms listed on the Stock exchange, whose ownership is relatively

of the firms in our sample are controlled by one shareholder (with no other block), while about 45 percent of firms are still owned by two (or more) blockholders, none of them holding the majority of the voting rights. For the sake of comparison with the data that are available for European firms (Laeven and Levine, 2008), we count the number of shareholders with more than 10 percent of the ownership rights (Table 4). In 2004, only 0.5 percent of Slovenian firms had no such shareholder (in comparison to 15.9 percent of firms in Europe), while 32.94 percent of firms had only one big owner (in comparison to 50 percent in Europe). The percentage of firms with many big owners in our sample (67.4 percent) is close to the numbers reported for Scandinavian countries (i.e. 50 percent in Norway, 45.7 percent in Finland) but much higher than the European average (34 percent). Nearly 32 percent of firms in our sample have at least 4 big owners. We however observe a decline in the number of firms with more than three blockholders, and an increase in the number of firms with one or two blocks.

[Table 3 and Table 4]

Given that all Slovenian firms started out with very similar ownership structure (i.e. no majority owner, multiple blocks and relevant employee ownership), it is interesting to see what factors are responsible for the observed differences in the patterns of ownership in the post-privatization period. Before proceeding to the empirical analysis, we in the next section present the related literature and elaborate on our main hypotheses.

2.2 Relevant literature and development of hypotheses

Given the chosen privatization model in Slovenia, the firm decision-making was at least initially contingent on the consent of a coalition of shareholders representing both the old and new political and economic elite (i.e. managers, employees and politicians, and PIFs and other private investors). Although the allocation of shares to few blockholders could be optimal from the perspective of firm value, such structures are generally not stable[22], particularly considering the nature of the block owners in Slovenia (e.g. the presence of state funds). The advocates of Slovenian privatization in fact expected that the re-trading of shares in the following years would bring in owners with financial funds and expertise, generating more efficient ownership structures and better

dispersed (for more on the ownership consolidation in Slovenian listed firms, see for example Gregorič and Vespro, 2009).

[22]For more on the optimal allocation of ownership among investors at initial share sell-off, IPO or privatization, and on the stability of the multiple blockholder structures, see for example Bennedsen and Wolfenzon (2000) and Bloch and Hege (2001).

governance. In formulating the hypotheses about what the new "equilibrium" ownership structure could be, we borrow from the existing theoretical literature on the large investors' portfolio choice. This choice is a product of the investors' consideration of the costs and benefits associated with different fractions of their wealth invested in a firm's assets, and of portfolio choices of other investors in the firm. The reason motivating an owner to hold a large share in a corporation is simple: a large share enables and motivates the owner to monitor firm management and to direct decisions toward increases of firm fundamental value from which she will benefit proportionally to the share invested in the firm (e.g. Shleifer and Vishny, 1986). However, these activities do not come without cost.[23] In addition, the large owners suffer the costs of reduced market liquidity and risk-diversification. The existence of these costs might ultimately create a discrepancy between the actual level of ownership concentration and the one that maximizes the value of the firm.[24] For example, the risk-neutral investor in Maug (1998) invests a share that maximizes both the capital gain (from monitoring) and the gains from trading on private information, which increase with the liquidity of firm shares. Consequently, the investor will hold a share that is strictly smaller than the one at which she fully commits to monitoring.[25] Shareholders in Admati et al. (1994) are risk-averse. Under specific conditions their risk-sharing considerations lead to Pareto efficient equilibrium allocation of shares, i.e. all agents hold the market portfolio of risky assets. In the dynamic model by DeMarzo and Urošević (2006) the only time-consistent strategy of the large blockholder is to diversify gradually, even if this entails inefficient monitoring. These theoretical predictions find some empirical support: Helwege et al. (2007) and Foley and Grenwood (2008) both report a steady decrease in the insiders' or block ownership in the US firms after their IPOs.

Theoretical arguments suggesting a dispersion of firm ownership are however at odds with the empirical evidence on the ownership structure outside US or UK. The majority of the firms across the world are owned by large blockholders that actively engage in firm monitoring (Thomsen et al., 2006; Holderness, 2003). Ownership concentration in a company usually implies that the large shareholders hold undiversified portfolios and forego some other benefits.

[23] Monitoring costs include costs necessary to identify the companies whose actions are in conflict with shareholders' interest; costs of negotiations with firm management or of any other blockholder activities necessary to induce a change in the corporate strategy; costs associated with proxy fights, search and choice of the board members and firm management (see for example Admati et al., 1994).

[24] For a discussion between the social, private and firm value optimum, see for example Edmans and Manso (2009).

[25] Bolton and Von Thadden (1998) discuss the liquidity costs when modeling the initial ownership structure of the firm. They show that concentrated ownership is optimal for firms with more patient investors, higher costs of controlling management, lower potential benefits from correcting managerial failures, and lower transactions costs of secondary market transactions.

Admati et al. (1994) claim that such non-diversified investors exist due to the free rider-problem;[26] since dispersed shareholders extract most of the surplus deriving from an ownership change, the large investor's share will ultimately depend on the initial endowment of her shares and might differ from a fully diversified share. Distortions in risk sharing and more concentrated ownership will occur also in cases when the efficiency of shareholder monitoring increases with her ownership or when she can capture some of the gains realized by other (small) shareholders as a consequence of her trading or monitoring activities (i.e. if she can negotiate an acquisition of large block from other large blockholder and appropriate part of the gains).

More important for our study are the arguments proposed by Bebchuk and Roe (1999). The authors introduce private benefits[27] of control as a justification for which the ownership structure does not automatically develop into dispersed ownership, even when this would be optimal from the perspective of firm value. They claim that a large shareholder might have the incentive and power to impede such change when this would limit her rent-seeking, while part of the benefits of such an efficient move would be enjoyed by other investors. The persistence of the initial structures will be more likely the higher are the private benefits and the lower are the efficiency gains associated with the change. Earlier, Shleifer and Vishny (1986) advance a similar idea explaining why large blocks of shares will tend to be passed rather than dissipated. Since blockholders make value-enhancing takeovers possible, the large owner will, when selling off the shares on the open market, lose the part of the firm's value deriving from the possibility of a takeover. Finally, the relation between the private benefits of the incumbent and rival owner might determine the outcome of a control transaction, and in certain cases prevent the transfer of block to more efficient owner (Grossman and Hart, 1988). Empirical and theoretical literature suggests that the role of private benefits in shaping investors' decisions is stronger in the countries with lower investor protection (e.g. Dyck and Zingales, 2004). Along this line, Shleifer and Wolfenzon (2002) propose a model in which a higher investor protection reduces the expected diversion of funds by the entrepreneur (the incumbent) by increasing the likelihood of her being caught. Conditional on the entrepreneur investing all the wealth in the firm, an improvement in the investor protection decreases her marginal costs of diversification (due to lower expected diversion) and increases the return on the raised funds, thus increasing the pay-off from dispersing the ownership. This implies a lower concentration of ownership in the

[26] For more on the free rider problem, see Grossman and Hart (1980).
[27] Private benefits of control are specific benefits enjoyed by the controlling owner that are not shared by other owners. These benefits include synergy benefits realized by the acquirer, the return from being able to freeze-out minority shareholders at a price below the value of their shares, perquisites of control and in

countries with better investor protection. Parigi and Pelizzon (2005) take private benefits as given but show that poor investor protection decreases the cost deriving from lower diversification opportunities, and thus amplifies the large blockholder incentive to concentrate. Empirical evidence on the ownership structure around the world is in line with these predictions (e.g. LaPorta et al., 1999; Foley and Greenwood, 2008[28]).

Our study investigates the ownership structure of unlisted privatized firms at a later stage of transition in Slovenia where poor institutions and functioning of the courts offer little legal protection to minority investors, leaving lots of opportunities for the controlling owners to generate lucrative trading profits and extract private benefits (e.g. Simoneti, 1999, Gregorič and Vespro, 2009). These opportunities to benefit at the expense of other owners should motivate the largest owners to gain a controlling share, and access to these benefits. The instability of the environment in which firms operate and consequently a higher value of control (Demsetz and Lehn, 1985), as well as reduced diversification opportunities due to inefficient markets (Parigi and Pelizzon, 2005) provide an additional push towards higher ownership concentration in this country. Despite of the general factors motivating increasing concentration of ownership, the owners' incentives to gain control over a specific firm may vary with firm size, risk, control and amenity potential (Demsetz and Lehn, 1985). For example, considering that investors are wealth constrained, they should be able to concentrate less in larger firms. Moreover, the larger is the firm, the more wealth investors need to put at risk, which again implies a negative relation between firm size and ownership concentration (Demsetz and Lehn, 1985; Bergstrom and Rydqvist, 1990). Burkart, Gromb and Panunzi (1997) also show that lower concentration may be more optimal in the firms where blockholder intervention reduces managerial initiative and firm-specific investments. The gains achievable through control may be lower in firms where alternative disciplining mechanisms are in place (i.e. debt) or where managers are relatively easy to monitor (i.e. Demsetz and Lehn, 1985). On the other hand, DeMarzo and Urošević (2006) argue that the pressure towards diversification will be slower in less risky firms, in the firms with a higher asymmetry of information between the small and large shareholder, and with higher private benefits of control. Large shareholder will also concentrate more when a higher percentage of votes to undertake the necessary restructuring is required (Maug, 1998), or when the efficiency of monitoring increases with the ownership share of the large owner (Admati et

extreme case the diversion of resource from the security holders to subsidiaries of management and the acquirer (Grossman and Hart, 1988).

[28] Foley and Greenwood (2008) find that firm ownership at IPO tends to be concentrated regardless of the level of investor protection. However, after the IPO block ownership dissolves much slower in the countries with poor investor protection.

al., 1994). This might be the case of poorly performing firms in transition which need to undertake strategy changes that require a higher (supermajority) approval by the shareholders. In relation to firms in transition, Aghion and Blanchard (1998) also argue that a concentrated outside owner is needed in firms with a stronger need for financial funds and outside expertise. Thus,

Hypothesis 1: The ownership of Slovenian unlisted firms is becoming increasingly concentrated. The largest owner on average concentrates more in smaller firms, poorly performing firms, more risky firms, and in the firms with more prominent agency problems (i.e. lower level of tangible assets and leverage).

Theoretical studies commonly assume that blockholders are large, homogenous and rational group. However, large investors can be of different types, such as individuals, families, institutions, and are likely to face different monitoring costs, have different financial constraints, risk-preferences, and appetites for the extraction of private benefits or rents (Demsetz and Lehn, 1986; Bozcuk and Lasfer, 2000; Cronqvist and Fahlenbrach, 2008). With regards to firm owners in transition, Aghion and Blanchard (1998) show that the appetites for seeking and preserving rents can be attributed in particular to certain types of owners that have other than financial interests in the firms, such as the employee owners or the state. Despite the fact that these initial privatization owners have neither the financial funds nor the expertise to restructure, they might still lack the incentive to sell the shares to a more efficient owner. For example, when employee owners can collude, they might be reluctant to sell their shares to an outside owner because of the fear of unemployment (Aghion and Blanchard, 1998). This will produces inertia in firms dominated by employees (Sprenger, 2006). Similar behavior could be anticipated for the two other types of owners that emerged from Slovenian privatization. For instance, by dominating large Slovenian corporations the state funds can build political power and nominate representatives on the boards to promote their own agendas. These rents might induce them to block the entrance of other owners, or to bring in friendly investors that will share these benefits. A number of cases in Slovenia illustrate that rent-seeking behavior often shapes the state funds' decisions on how and when to sell off the shares of the companies they own. For example, the state funds prevented the entry of a domestic private company into a large Slovenian company – Iskraemeco, among other firms. In few cases the funds had even increased their share to prevent the entrance of genuine private companies. On the other hand, in 2006 the funds sold the shares of a large Slovenian company Mercator to two government friendly companies using non-transparent procedures and at a price below the market price in exchange of obtaining the control of the main Slovenian newspaper (Mencinger, 2006:80). Thus,

Hypothesis 2: Given the access to rents in the firms they own, the privatization owners might have the incentive to block the entrance of new private owners. Considering that the privatization owners are

financially constrained and cannot substantially increase their own shares, the ownership concentration will be slower in the firms dominated by these owners.

Besides a slower ownership concentration, the persistence of the privatization owners in the firms might also explain the stability of the multiple blockholder structures that we observe in a large number of unlisted firms (see section 2.1). This prevalence of multiple blockholder firms in Slovenia is somehow in conflict with theoretical predictions. For example, Bennedsen and Wolfenzon (2000) argue that only a structure with one dominant shareholder is stable when shareholders can trade their shares. Also in Urošević (2004), the presence of other blockholders is not sustainable as it results in a "race to diversify" and quicker dispersion of ownership. Given that they anticipate the extraction of private benefits by the largest owner, multiple blockholders don't co-exist also in Parigi and Pelizzon (2005). Bolton and von Thadden (1998) argue that having two large blocks in the same firm only reduces liquidity but contributes nothing to control. Recently however, a number of theoretical arguments provide new rationale for the co-existence of multiple blockholder in the firms.[29] In Boch and Hege (2001), additional blockholders add value by monitoring and reducing rent extraction through competition for control. Once re-trades are allowed the multiple blockholder ownership structure is less likely to turn into a one-shareholder control when both shareholders complement each other in monitoring. Besides complementarities in monitoring services, other reasons for the persistence of multiple blocks have been put forward, such as better risk sharing among investors. Additional blocks signal implicit commitment not to extract private benefits in the firms with the prospect of going public, reduce asymmetric information (Bloch and Hege, 2001), mitigate the conflict of interest between the largest undiversified shareholder and small shareholders deriving from the difference in their risk-preferences (Dhillon and Rossetto, 2006), and strengthen the threat of disciplinary exit through competitive trades that increase the informational value of the share price (Edmans and Manso, 2009).

Besides the need to provide an opponent to the largest owner, multiple blockholder structure might persist also where the main shareholder chooses to control in coalition with other owners. This may occur even when there is competition for private benefits (Zwiebel, 1995) if the benefits of control are divisible and can be shared by a number of blockholders. Two shareholders share control and benefits in Gomes and Novaes (2005) and in the closely held

[29] Theoretical interest for modelling interactions among large owners derives from empirical evidence on the presence of several blockholders in a substantial number of European listed corporations, including the UK (Bloch and Hege, 2001). Theoretical interest is followed by an increasing empirical interest on the issue. See for example Maury and Pajuste (2005), Laeven and Levine (2008), Gutierrez and Tribo (2008).

firms studied by Bennedsen and Wolfenzon's (2000). According to Gomes and Novaes (2006), the governance under shared control is ex-ante more efficient when investors are poorly protected by the legal system,[30] in the firms with relevant financial constraints, and in the firms with investment opportunities that are hard for outsiders to evaluate (i.e. projects with high volatility of returns). The main costs of shared ownership in their model relate to the bargaining problems between coalition members: these are lower when members have similar business backgrounds. Lower bargaining problems in turn reduce the incentive for any of the coalition members to buy out others, thus increasing the stability of the coalition (Gomes and Novaes, 2006). Along the similar lines, Bergstrom and Rydqvist (1990) claim that shareholders are rarely unanimous concerning a firm's production plan: disagreements about firm's objective may motivate an investor to concentrate her share in order to get in a position to independently operate the firm in the way she considers best. The idea that similarity of interests reduces the costs of sharing control has also been proposed by Hansmann (1988).[31] Empirical results by Leaven and Levine (2008) also suggest that the largest shareholders are more likely to cooperate and form coalitions when they are of the same type. Considering the weaknesses of the institutional environment we expect the "coalition formation" explanation to be more relevant than "cross-monitoring" for the persistence of the multiple blockholders in Slovenian unlisted firms. Thus,

Hypothesis 3: Multiple blockholder structures in part persist because of the decision of the largest owner to share control with other owners rather than to further concentrate her own share. Such sharing will more likely occur in the firms where the two largest blockholders are of the same identity, in the firms with higher volatility of returns and higher financial constraints.

3. Empirical model and data

3.1 Data

Our econometric analysis is based on a data set including all non-financial firms with dematerialized securities and related ownership changes recorded by the Central Securities Clearing and Deposit Corporation (CSCDC) over the period from 1999 to 2004. At the end of 2004, the CSCDC's records included 900 official issuers of shares. These firms represent nearly 70 percent of all privatized firms in Slovenia.[32] From this initial sample, we exclude banks and

[30] See Faccio et al. (2001) for empirical evidence.

[31] As Hansmann (1988) argued, the costs of collective decision-making are relatively small where the patrons involved in the decision making have all essentially identical interests and all deal with the firm in similar circumstances.

[32] The law (*Dematerialized Securities Act*, *Official Gazette of the Republic of Slovenia, 23/99*) requires all issuers of serial securities that are sold by way of a public offering to issue dematerialized securities and

other financial institutions (i.e. privatization investment funds, insurance companies) since these firms followed different privatization programs and are subject to specific rules. Not all firms entered the CSCDC Register by 1999, and in some cases the data are not available for every year in the analysis period. Consequently, we work with un unbalanced sample comprising 385 firm observations in 1999, 465 firm observations in 2000, 469 in 2001, 536 firm observations in 2002, 519 firm observations in year in 2003, and 498 observations in 2004. For those companies, the CSCDC provided us with a snapshot of the ownership structure as of 31st December each of the years. This information includes the ownership shares and names of all shareholders with a stake of at least one percent in a firm. We assigned a corresponding ownership type to each of these shareholders,[33] and supplemented the ownership data with the companies' official financial information which we obtained from the Agency of the Republic of Slovenia for Public Legal Records and Related Services.

3.2 Regression specification

We first define our dependent variables as the percentage of ownership held by the largest shareholder (C_1). As an alternative measure, we define a proxy for the contestability of the largest blockholder's control (*HI_123*). This variable (*HI_123*) is constructed as the sum of squares of the differences between the first and second largest ownership share, and between the second and third largest share. This definition follows Maury and Pajuste (2005) and Gutierrez and Pombo (2009). A lower value in the variable implies a more equal distribution of shares among the three largest owners, and thus higher contestability of the largest owner's control. Furthermore, this variable allows us to capture the persistence/dissolution of the multiple blockholder structure that the firms were assigned at privatization. A higher value of the variable reflects higher relative power of the largest owner and thus, a departure from the multiple blockholder structure.

We include two sets of explanatory variables, firm-specific variables (in relation to *Hypothesis 1*) and owner-specific variables (in relation to *Hypotheses 2* and *3*). The choice of firm-specific variables follows the existing literature (see Section 2.2). Firm size is measured using the value

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register them with the CSCDC. In addition, the obligation to issue dematerialized shares also applied to firms that issued shares under the Slovenian Privatization Law, and firms with more than 50 shareholders subscribing to their shares.

[33] We distinguish between seven main ownership types: i) individuals; ii) foreign owners (private and individual); iii) banks and insurance companies; iv) the state (Republic of Slovenia); v) state-controlled funds (Restitution Fund, Pension Fund); vi) privatization investment funds; vii) domestic industrial

of firm sales, on a logarithmic scale (*SIZE*). We use the ratio of the standard deviation of sales for a given firm to the standard deviation of sales for the median firm in the industry as a measure for firm risk (*RISK*). The standard deviation is calculated using a four-year rolling window for the years 1995 to 2004. We proxy for agency problems in the firm by assets' tangibility, that is the proportion of fixed assets in the firm's total assets (*TANG*), and by firm leverage measured as debt to total assets, in percent (*LEVERAGE*).[34] Firm performance is expressed by the return on assets (ROA), in percent. Owner specific variables are defined as follows. We introduce a dummy variable "*STATE*", which takes the value 1 when the first largest shareholders is a state fund and zero otherwise, and the dummy variable "*PIF*", which takes the value 1 when the first largest shareholder is a privatization investment fund, and zero otherwise. We define the variable "*EMPLOYEE shares*", which denotes the total share held by employees, former employees and the managers (i.e. insiders). We furthermore define the variable "$STATE^{NON\text{-}LARGEST}$" and "$PIF^{NON\text{-}LARGEST}$", which measure the share (in percent) of non-largest blocks that are held by state funds and privatization investment funds, respectively.

To account for the probability of the main owners forming controlling coalitions, we define the variable (HOM_{12}), which takes the value 1 in cases where the first and the second largest shareholders are of the same type (e.g. both are domestic industrial corporations or both are banks or insurance companies, etc.), and zero otherwise. In year 1999, the two largest owners were homogenous in nearly 24 percent of unlisted firms; this percentage increased to 34.77 in year 2004. We also define the variable (HOM_{123}), which takes the value 1 in cases where the three largest shareholders are of the same type and zero in other cases. In year 1999, the three largest shareholders were of the same identity in 7.9 percent of unlisted firms. The percentage increased to 15.3 percent in year 2004. The increase in the percentage of firms with homogenous owners somehow suggests that shareholders might be sorting out their holdings in order to keep the share blocks in the firms with other similar owners, and selling off the blocks in other firms. We explore this issue more in detail in the empirical analysis that follows. Summary statistics for the variables used in our regression models are provided in Table 5. As indicated in the table, the largest owner in our sample holds on average 43.74 percent of ownership rights, while in half of the firms her share does not exceed 39 percent. The average firm generates below 0.7

corporations. In general, it is possible to determine the type clearly by looking at the owner's name. In a few unclear cases, we relied on additional sources (e.g. web sites and business registers).

[34]Unfortunately, we do not have any data on internal governance mechanisms such as managerial compensation or board structures. In our view, however, this is not a major limitation of our study. Apart from the employee representatives, the composition of boards is influenced by firm ownership structure, while until recently the managerial remuneration in Slovenia to a large extent reflected the size of the firm

percent return on assets, holds 38.11 percent of liabilities in debt and 51 percent of assets in the form of fixed assets.

[Table 5]

In testing our hypotheses we employ a dynamic specification of the regression model. The reasons underlying our choice of specification are twofold. First, it allows for the possibility that, due to persistence of the ownership from privatization, transaction costs or equilibrium changes following external shocks (i.e. a change in the legislation), shareholders arrive at their "target" ownership only gradually, i.e. adjustment is not immediate. The need to account for the adjustment costs and the difference between the optimal and observed ownership has been pointed out by other studies, as for example Cheung and Wei (2006). Second, the specification of the model and the associated choice of the GMM dynamic panel estimator allow us to control for firm-specific effects and to address econometric problems related to the potential endogeneity of explanatory variables. In this regard, we can also control for the initial ownership structure (at privatization), which is actually a fixed effect. Due to the inclusion of the lagged dependent variable, the usual panel data estimators produce inconsistent estimates of the regression parameters and are therefore not appropriate. Several solutions have been proposed in the literature to eliminate these biases (Anderson and Hsiao, 1982; Arellano and Bond, 1991; and Blundell and Bond, 1998). We use the Arellano-Bond (1991) estimator, which exploits more information and can be viewed as a more efficient extension to the (alternative) Anderson-Hsiao estimator. The consistency of the estimator, however, depends on the validity of the instruments. In order to address this issue, we consider two specification tests suggested by Arellano and Bond (1991), Arellano and Bover (1995), and Blundell and Bond (1998). The first is the Sargan test for over-identifying restrictions, which tests the overall validity of instruments by analyzing the sample analogue of moment conditions used in the estimation process. The second test examines the hypothesis that the error term is not serially correlated; in the difference regression, we test whether the differenced error term is second-order serially correlated.

4. Results

We present the empirical results in Tables 6-10. Except from Model (5) and Models (9a-9c), we report two-step GMM results. To correct for bias in the standard errors, we use Windmeijer bias-

and the "executive pay criteria" stipulated at the national level. Consequently, these other mechanisms can be excluded from the model (Manjon-Antolin, 2004).

corrected robust variance estimator (Windmeijer, 2005). In all specifications, the Sargan test confirms that our instruments are valid. We can also reject the second-order autocorrelation of the differenced errors in all specifications. To test *Hypothesis 1*, we first regress basic firm-specific variables on the percentage of shares held by the largest owner (C_1) in Model (1). Since our dependent variable is bounded, we use a logistic transformation of this variable that is $logitC_1 = \ln(\frac{C_1}{100 - C_1})$ [35]. To test *Hypothesis 2*, we extend the basic model (Models 2a-2c and Model 3) by including dummies for the identity of the privatization owners (i.e. state funds, privatization investment funds), and controls for the shares held by inside owners. First, with regards to *Hypothesis 1*, our results indicate that the largest shareholder on average concentrates less in larger firms, more risky firms and better performing firms. The negative effect of firm size is in line with other empirical studies (Demsetz and Lehn, 1985; Bergstrom and Rydqvist, 1990). On the contrary, the effect of risk is negative. A possible explanation for this negative impact is that, given the generally unstable environment in transition, the owners of firms with more volatile turnover are exposed to excessive risk offsetting the positive effects from higher value of control in these firms. The negative impact of firm ROA follows our expectations: poorly performing firms have a stronger need for substantial organizational and strategy changes, which require a strong owner. Moreover, in these firms it is probably easier for a large owner to concentrate due to a higher readiness of the existing owners to sell off their shares. It is important to note that, apart from the effect of firm performance, the coefficients for firm-specific variables (i.e. *RISK, SIZE*) turn out significant only after controlling for the identity of the main owners and the remaining share of the initial owners (incumbents) in these firms (compare for example Model (1) and Model (2a), Table 6).

The influence of the incumbent owners on the ability of the largest owner to consolidate her share is further explored in Model (2a)–(2c), and Model (3). In line with *Hypothesis 2*, a lower concentration of ownership is observed in the firms in which the state fund remains the largest owner. The impact of privatization investment funds as the largest owners is negative but not significant (see Model 2(a), Table 6); the same holds for other owner groups (results not reported) or when we control for the presence of the Slovenian state (*Republic of Slovenia*) among the blockholders (Model (2b). Furthermore, ownership concentration is lower in the firms with a higher share of employee ownership. This however does not necessarily imply that employee owners are blocking the concentration of the largest owner[36]. We look further into this

[35]This follows Demsetz and Lehn (1985).
[36] We thank the referee for pointing this out.

issue by running the same regression (Model (2c)) for the share of the largest owner in the outside ownership, namely for $C_{1A} = (\frac{C_1}{100 - Employee\ \ shares}) \times 100$. We observe a lower coefficient for the lagged dependent variable (0.153). Since the value of (1- coefficient for the lagged dependent variable) reflects the speed of adjustment taking place from t-1 to t, the quicker adjustment in the regression excluding employee ownership suggests that inside owners might be indeed slowing down ownership transfers in unlisted firms (for more evidence on this claim, see below). How relevant are the observed effects? To ease the interpretation, we re-estimate Model (2a) without transforming the main dependent variable (C_1) and with firm sales in absolute value.[37] The presence of the state as the main shareholder implies approximately a 9.4 percentage point lower share of the largest block, while a 10 percent decrease in employee ownership leads (ceteris paribus) to a 3.8 percentage point increase in the largest block. Both one million euro increase in firm sales or a 1 percentage point lower return on assets imply approximately 0.03 percentage point smaller size of the largest block.[38]

[Table 6]

Finally, following the idea of path-dependence and rent-seeking behavior of the incumbent owners we test whether a lower ownership concentration may be due to the inability of the largest owner to buy out other blockholders. We expect that (besides employee owners) both state funds and privatization investment funds might be resistant to sell the shares in some of the firms. In Model (3) we thus add the variables $STATE^{NON\text{-}LARGEST}$ and $PIF^{NON\text{-}LARGEST}$, which measure the share of PIFs' and state funds' ownership in the total percent of other (non-largest) blocks that exist in a firm.[39] The impact of state funds' ownership is negative but not significant. On the other hand, firms in which the PIFs own a larger percentage of non-largest blocks have on average lower ownership concentration. All in all, the results suggest that the ability of the largest owner to concentrate in part depends on her ability to buy out other owners, and that this ability is limited in cases where these other owners are either employees or privatization investment funds. These results support *Hypothesis 2*. To sustain this claim we additionally check whether the shares of the PIFs and employee owners can be associated to some specific firm

[37] Results of this simplified regression are not reported. Following the recommendation of the referee, we also estimate a number of alternative model specifications, including for example the change of ROA at the place of ROA, the number of firm employees, and controlling for the change in firm investments measured by the change in the value of firm's fixed assets. None of these variables was significant and are consequently not included in Table 6.

[38] These are long-run relationships. For more, see Canarella and Nourayi (2008).

[39] I.e. $PIF^{NON\text{-}LARGEST} = (\frac{non - largest\ blocks\ owned\ by\ PIF\ in\ \%}{shares\ held\ in\ non - largest\ blocks,\ in\ \%}) \times 100$

characteristics indicating that these owners actually stick to firms that offer them a "higher value of control". We regress the total ownership of PIFs and employee owners (in %) on a number of firm-specific characteristics. The results are presented in Table 7, Model (4a) and (4b). We find that employee ownership is on average higher in less risky firms and in the firms with a smaller number of employees. This support our argument: a large number of employees makes it less likely that they will collude against re-sale, while risk increases the costs of ownership and reduces the expected wage in the event of no resale. Privatization investment funds, on the other hand, hold to better performing firms and to firms with higher level of fixed assets as a proportion of total assets. A higher level of fixed assets implies that the firm can be liquidated at a higher value and lower risk (Grosfel and Hashi, 2007). Thus, the funds seem to "stick to" the better performing firms; this sustains our hypothesis. This claim is further supported by anecdotal evidence. In 2003 PIFs lobbied successfully for an "exemption" from the legal provisions that required their transformation into mutual funds. The latter would provide more protection for the (small) fund owners, while at the same time require a significant restructuring of the funds' portfolios, in particular a re-direction towards more liquid securities and a reduction of their holdings in unlisted firms.[40] This is just one example on how these owners influenced the legislation in order to preserve their positions in the privatized firms, leading to a path-dependent ownership of Slovenian corporations.

To conclude the analysis of the ownership concentration, we look at the characteristics of the firms that did not change the ownership since privatization. We only allow for the possibility of an exchange of blocks between the two state funds since these trades were quite common at the beginning of transition (i.e. due to a consolidation of the funds' portfolios). We construct a dummy variable to distinguish the firms in which the largest ownership share is held by a state fund, and lower than or equal to 20 percent. About three percent of the firms-year observations correspond to this definition. Due to the fact that in 97 percent of the firms the value of this variable does not change during the period of our analysis, we estimate a pooled Probit regression with standard errors clustered by firm. We find that the likelihood of a firm experiencing no change in the ownership structure increases with firm size (see the positive and significant coefficient of the *SIZE* variable in Model (5), Table 7) but is lower for the firms that are

[40]The initial regulation of privatization investment funds and their transformation into normal financial institutions has been considered highly unsuccessful and enabled the funds to expropriate many of their minority owners. Consequently, two laws were recently enacted in Slovenia (*Act on Investment Funds and Management Companies, 2005; Law on Legal Successors to Privatization Funds, 2007*) and impose tighter regulations on the PIFs which were actually transformed into financial institutions (i.e. by listing shares on the stock exchange) and require the other funds which operate in the form of an investment fund to reorganize as mutual funds (unless decided otherwise by at least 75 percent of the fund's shareholders).

financially constrained (see the negative impact of *LEVERAGE*). The probability of no change in the ownership structure is also higher for the firms operating in specific industries, such as media and culture, real estate, national defense and social security.

We continue with *Hypothesis 3* and the contestability of the largest owner's control (*HI_123)*. To provide a first insight, we calculate the partial correlation coefficients between the contestability of the largest shareholder's control and a set of variables, as suggested by the theoretical literature. Table 8 presents the regression coefficients and the corresponding standard errors for 17 separate regressions that condition on industry and time. To ease the explanation, we look at the simple difference between the two largest blocks, and three largest blocks respectively. The results indicate that the power between the three largest shareholders distributes more equally in larger firms and riskier firms. The effect of size is negative but not very strong; on average a 100 million euro increase in sales leads to a 1 percentage point decrease in the difference between the two largest blocks. Much stronger effects are associated with the identity of the main shareholder: the difference between the first two blocks is smaller by more than 21 percentage points where the first largest blockholder is a state fund, and by more than 10 percentage point where the largest blockholder is the privatization investment fund (PIF). The difference is also smaller (by nearly 3 percentage points) where a PIF is the second largest blockholder, and where PIFs hold other blocks in the same firm. On the other hand, the relative power of the largest owner is significantly higher when this large owner is a domestic industrial corporation: both the difference between the first two blocks and the difference between the three blocks is in this case higher by approximately 15 percentage points. Finally, the difference between the two blocks is lower by 4.46 percentage points when the first two owners are of the same identity (i.e. homogeneous): the homogeneity of the first three largest blocks is associated with a similar decrease in the difference between the three largest blocks (by 4.811 percentage points). These numbers suggests that in some firms the main owner might be sharing control with other owners of the same type. Given that the observed correlation could derive from unobserved factors that influence the identity of the blockholders and the relative size of the blocks, we continue with the GMM regressions in Table 9.

[Table 8 and 9]

According to the results reported in Table 9, none of the firm-specific variables significantly determines the allocation of ownership between the largest blocks. However, in line with *Hypothesis 3* we do observe that ownership distributes more equally between the largest owners in the firms where the first two owners are of the same type (see the negative marginally

significant impact of the variable HOM_{12} in Model (6) and Model (7b), Table 9).[41] The size of the coefficient implies that, keeping the other factors constant, the difference between the three largest blocks in the firms with homogenous owners is on average 1.8 percentage points lower than in other firms; the magnitude of the effect is similar if we look only at the difference between the two largest blocks (results not reported). [42] Since the formation of coalitions among the main owners may be more important in the firms with no controlling owner, we in Model (7a) restrict our sample to the firms with no majority owner. The impact of (HOM_{12}) is negative but not significant (results not reported), while we observe a negative and significant effect in relation to the homogeneity dummy for the three largest owners (HOM_{123}). The regression coefficient shows that, controlling for other industry, time and firm-specific effects, the difference between the three largest blocks in the firms in which the three largest blockholders are homogenous and none of them holds the majority of the voting rights is on average smaller by 2 percentage points. The results remain significant when we control for the type of the largest owners (see the results for the whole sample in Model 7(b)). This suggests that the persistence of the multiple blocks in the privatized firms could be in part explained by the formation of controlling coalition between the owners of same identity, and that this may be the case regardless of who these owners are. In 2004, 25 percent of these "coalitions" of homogenous owners were constituted by privatization investment funds. Nearly 40 percent, on the other hand, involved domestic industrial corporations. The picture was rather different in 1999, when privatization investment funds constituted 38 percent of homogenous owner coalitions, while only 21 percent of such coalitions were formed by domestic industrial corporations.

Finally, we explore whether multiple blocks can be linked to the persistence of the initial privatization owners, i.e. PIFs and state funds as the non-largest owners. Since we find no significant impact for state funds, we concentrate on the PIFs and the corresponding coefficients in Model 8(a) and 8(b). First, the results show that a higher share of PIFs in the total share of the

[41] In these estimations, we are assuming that state funds and the Republic of Slovenia have heterogeneous interests. By law, the two state funds should behave as normal financial institutions and should aim to maximize the return on their investments. However, given that they are owned by the State, it can be argued that these funds follow the same interests as the State itself. At any rate, aggregating the State and state funds under the same owner type (assuming that they are homogenous) does not alter the conclusions of this study.

[42] Following the suggestion of Joseph P. H. Fan, we checked whether the homogeneity effect varies across different years by interacting the variable HOM_{12} with time dummies. We would expect the impact of the homogeneity variable to increase in strength over the last few years, along with the progression of ownership consolidation. In this regard, we observe a significant negative interaction term for HOM_{12} and the year 2004 (results not reported) but not for other years. We also constructed other variables, for example a dummy variable for the firms where the largest shareholder is a domestic industrial firm while, at the same time, the second largest block is owned by a state-controlled fund. The impact turned out to be non-significant.

non-largest blocks implies a more equal distribution of ownership between the three largest owners. However, part of this may be due to homogeneity effect: the firms with higher percentage of PIF block ownership are also firms with homogenous owners (the PIFs) who find it easier to share control. In fact, when including the homogeneity dummy both variables lose significance (but keep the same sign). A simple correlation coefficient between the share of PIFs in the non-largest blocks and the homogeneity dummy also indicates a strong correlation between the two variables but this correlation is positive only for the firms with no majority owner. In these firms it is thus hard to disentangle the effect of PIFs from the homogeneity effect. We consequently run the same regression on a sample of firms with majority owner only. The results show that in these firms, the co-existence of other large blocks is due to the persistence of PIFs among the non-largest owners. This effect goes beyond the simple homogeneity effect (see the negative and significant coefficient for the variables $PIF^{NONLARGEST}$ and HOM_{12} in Model 8(b)). Finally, the ownership distributes more equally in the firms where a higher percentage of shares is held by employee owners.

As a robustness test, we model the probability of the two largest owners sharing control. For this purpose, we define a dummy variable that is assigned the value 1 in cases where the first largest blockholder holds less than majority of the voting rights while, at the same time, her share does not exceed the second largest block by more than 5 percentage points. An example of such firm would be a firm in which the largest blockholder holds 30 percent of the ownership rights, while the second largest holds 25 percent. The results of this analysis are presented in Model 9(a) and 9(b) of Table 10. We confirm the conclusions from Table 9: shared control is more likely in the firms with homogenous owners, in the firms with a higher level of employee ownership, and in the firms where a bigger share of the non-largest blocks is held by privatization investment funds. Moreover, the likelihood of observing such patterns is higher in larger and riskier firms, which is in line with the theory (see Section 2.2).

5. Conclusions

Privatization set in motion a process of ownership adjustments, arising as an outcome of various firm-specific factors such as size, performance, industrial affiliation and the operating environment (Bishop et al., 2002). The results of our empirical analysis indicate that, apart from firm-specific factors, the evolution of ownership in the post-privatization period is also driven by the behavior of the incumbent owners - the main players at privatization. In Slovenia, the behavior of these incumbent owners, along with the weaknesses in the institutional environment

resulted in a sort of path dependence in the spirit of Bebchuk and Roe (1999), and contributed to the status quo of Slovenian corporate governance. A note is however in place here. One assumption underlying our analysis is that path-dependence results from the rent-seeking behavior of the incumbent owners, producing presumably inefficient ownership and governance. However, the reasons for path-dependence may be also grounded in efficiency, i.e. when moving from one structure to another involves transaction costs, maintaining the status quo may be efficient (Bebchuk and Roe, 1999). Given that positive effect have been generally associated with employee ownership in Slovenia (e.g. Hobdari et al., 2010), efficiency reasons might indeed motivate the persistence of employee (insider) ownership in Slovenian firms. On the other hand, empirical and anecdotal evidence suggest that rent-seeking has been mostly driving the behavior of state funds and PIFs (e.g. Gregorič and Vespro, 2009). A more detailed analysis of the economic consequences that result from such behavior and from the path-dependence in the ownership structure is certainly an interesting issue for further research.

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TABLES

Table 1: Descriptive statistics on block ownership in years 1999 and 2004

	C_1		C_2		C_3	
	1999	**2004**	**1999**	**2004**	**1999**	**2004**
Mean	37.90	52.72	15.60	15.09	9.46	7.75
Median	33.38	50.69	14.39	14.25	9.97	7.13
Sd	20.55	26.81	8.95	10.43	5.80	6.38
Number of observations	347	347	347	347	347	347

Notes to Table 1: C_1 is the ownership share of the first largest shareholder, C_2 is the ownership share of the second largest shareholder, and C_3 is the ownership share of the third largest shareholder. All numbers are in percent. The sample includes the firms for which ownership information is available in all years (balanced panel).

Table 2: Distribution of firms by the identity of the largest owner

	Percent of firms	
	1999	**2004**
Individuals	8.07	11.27
Foreigners	2.31	5.49
Republic of Slovenia	12.97	5.78
Domestic industrial firms	22.48	45.66
State funds	10.66	2.02
Privatization investment funds	37.18	2.89
Other	6.34	9.25

Notes to Table 2: The sample includes 347 firms for which ownership information is available in all years.

Table 3: Breakdown of firms by the size of the first largest and second largest block in 2004

	Percent of firms
Majority first owner, above-average second block	17.9
Majority first owner, intermediate second block	14.4
Majority first owner, no other block	21.2
Non-majority first owner, above-average second block	28.7
Non-majority first owner, intermediate second block	16.6
Non-majority first owner, no other block	1.2

Notes to Table 3: The sample includes 498 firms for which information is available in year 2004. The above-average second block is any block larger than the sample average of the second largest block, which is 14.76 percent. Intermediate second block is any block smaller than (or equal to) 14.76 percent but larger than (or equal to) 5 percent. Firms with no other block are firms in which the second largest block is smaller than 5 percent. The majority first owner stands for the first largest owner that holds more than 50 percent of ownership rights in a firm.

Table 4: Number of shareholders with at least 10 or 5 per cent of ownership rights in a firm

	10 % threshold		5 % threshold	
	% of firms 1999	% of firms 2004	% of firms 1999	% of firms 2004
0 blockholders	2.08	0.59	0.89	0.00
1 blockholder	22.85	32.94	7.72	21.66
2 blockholders	26.11	33.83	14.54	18.10
3 blockholders	33.53	23.15	24.04	21.36
more than 3 blockholders	15.43	9.50	52.41	38.47

Notes to Table 4: The sample includes 347 firms for which ownership information is available in all years. In the 10% threshold column, a blockholder is any owner holding at least 10 percent of ownership rights in a firm. In the 5% threshold column, a blockholder is any owner holding at least 5 percent of ownership rights.

Table 5: Summary statistics for the variables used in the regression models

	Mean	Std.dev.	Min.	Median	Max.
C_1	43.74	24.57	1.00	38.97	99.99
HI_123	0.18	0.25	0	0.06	0.98
LEVERAGE	38.11	21.42	0	35.75	99.49
RISK	3.69	12.94	0	1.03	91.64
ROA	0.65	6.97	-32.9	1.15	48.39
SIZE	4.24	13.90	0	1.25	385.02
TANG	0.51	0.22	0	0.53	0.98
EMPLOYEE shares	24.57	19.72	0	21.16	97.00
Total ownership by state funds	13.53	15.28	0	10.00	66.66
$STATE^{NON\text{-}LARGEST}$	18.70	26.78	0	0.00	97.09
Total ownership by PIFs	19.32	15.00	0	21.20	98.26
$PIF^{NON\text{-}LARGEST}$	21.43	29.17	0	0.00	100

Notes to Table 5: C_1 denotes the percentage stake held by the largest owner. HI_123 is calculated as the sum of squared differences between the shares held by the three largest blockholders. SIZE stands for firm sales expressed in billions of 2000 constant Slovenian tolars (1 euro = 239 tolars). LEVERAGE is the share of debt in total assets (in percent), RISK denotes the ratio of the standard deviation of sales for a given firm to the standard deviation of sales for the median firm in the industry. ROA stands for return on assets (in %), TANG measures the share of fixed assets in total assets. EMPLOYEE shares denote the ownership rights of inside owners (employees, managers, former employees and relatives), and are expressed in percent. The total ownership rights by state funds and PIFs refer to the total block ownership held by these two owner groups, in percent. $PIF^{NON\text{-}LARGEST}$ is the fraction (in %) of non-largest share blocks held by privatization investment funds, $STATE^{NON\text{-}LARGEST}$ is the fraction (in %) of non-largest share blocks held by state-controlled funds.

Table 6: GMM Regression on the determinants of ownership concentration in unlisted privatized firms

	$LogitC_1$ Model (1)	**$LogitC_1$ Model (2a)**	**$LogitC_1$ Model (2b)**	**$LogitC_{1A}$ Model (2c)**	**$LogitC_1$ Model (3)**
Lagged dependent variable	**0.294**** **(0.094)**	**0.184***** **(0.062)**	**0.181**** **(0.063)**	**0.153**** **(0.064)**	**0.171***** **(0.058)**
Owner characteristics					
STATE		**-0.371**** **(0.189)**	**-0.349 *** **(0.196)**	**-0.644**** **(0.193)**	**-0.340*** **(0.192)**
PIF		-0.072 (0.145)	-0.059 (0.145)	-0.173 (0.218)	
EMPLOYEE shares		**-0.014***** **(0.004)**	**-0.014***** **(0.003)**		**-0.014***** **(0.003)**
Republic of Slovenia			0.250 (0.285)		
$STATE^{NON\text{-}LARGEST}$					-0.001 (0.001)
$PIF^{NON\text{-}LARGEST}$					**-0.003**** **(0.002)**
Firm characteristics					
LEVERAGE	0.001 (0.006)	-0.002 (0.003)	0.001 (0.003)	-0.004 (0.005)	-0.001 (0.003)
RISK	-0.002 (0.002)	**-0.003***** **(0.001)**	**-0.003***** **(0.001)**	**-0.005***** **(0.002)**	**-0.003***** **(0.001)**
ROA	**-0.005*** **(0.002)**	**-0.004**** **(0.002)**	**-0.005**** **(0.002)**	**-0.002** **(0.004)**	**-0.004*** **(0.002)**
SIZE	-0.104 (0.139)	**-0.169**** **(0.087)**	**-0.179**** **(0.088)**	**-0.173*** **(0.117)**	**-0.143**** **(0.074)**
TANG	**-0.567*** **(0.551)**	-0.223 (0.449)	0.299 (0.440)	0.836 (0.627)	0.280 (0.409)
Specification					
M_1	-3.76	-3.85	-3.879	-4.59	-3.86
M_2	-1.14	0.288	0.201	0.088	0.18
Sargan test χ^2 ( ) prob	χ^2 (134)=120.6 0.79	χ^2 (190)=186.7 0.55	χ^2 (181)=174.1 0.63	χ^2 (181)=174.1 0.63	χ^2 (170)=159 0.72
Number of observations	1509	1509	1509	1509	1509

*Notes to Table 6: The dependent variable is the logistic transformation of the percentage stake held by the largest shareholder, namely $LogitC_1 = ln(C_1/(100-C_1))$. C_1 denotes the ownership share of the largest owner, in percent. The logistic transformation is appropriate whenever the dependent variable is constrained to lie within an interval. In Model (2b), the dependent variable is the logistic transformation of the share of the largest shareholder in the total ownership of outside owners, namely $LogitC_{1A} = ln((C_{1A}/(100-C_{1A}))$ where C_{1A} is defined as $((100*C_1/(100-Employee\ shares))$. Two-step GMM results. Windmeijer (2005) robust standard errors in parentheses. All regressions include common time effects. ***, ** and * denote statistical significance at 1, 5 and 10 percent level respectively. Four lags of all variables used as instruments in the GMM procedure. The Sargan test for over-identifying restrictions (obtained from second-step results) tests the validity of the instrument set. M_1 and M_2 are tests for first and second-order autocorrelation in differenced residuals. Constant not reported.*

Variables: LEVERAGE - share of debt in total assets, in percent; RISK – ratio of standard deviation of sales for a given firm to the standard deviation of sales for the median firm in the industry; ROA – return on assets in percent; SIZE – logarithm of firm sales expressed in thousand of 2000 constant Slovenian tolars (1 euro = 239 tolars); TANG – share of fixed assets in total assets; HOM_{12} - dummy variable for firms where the first and the second largest blockholder are of the same identity; HOM_{123} - dummy variable for firms where the first, the second and the third

largest blockholder are of the same identity; STATE – dummy variable for firms where the largest blockholder is a state fund; PIF – dummy variable for firms where the largest blockholder is a privatization investment fund; $PIF^{NON\text{-}LARGEST}$ is the fraction (in %) of non-largest blocks held by privatization investment funds; EMPLOYEE shares denotes the total percent of shares owned by employees (including managers), former employees and their relatives.

Table 7: GMM and Probit Regressions on the determinants of the ownership structure in unlisted firms

	EMPLOYEE shares	*PIF shares*	*No change*
	Model (4a)	**Model (4b)**	**Model (5)**
EMPLOYEE $shares_{t-1}$	**0.255*** **		
	(0.059)		
PIF $shares_{t-1}$		**0.254*** **	
		(0.079)	
Firm characteristics			
LEVERAGE	0.074	-0.005	**-0.009***
	(0.056)	(0.049)	**(0.005)**
RISK	**-0.073****	-0.041	-0.001
	(0.039)	(0.041)	(0.007)
ROA	0.025	**0.146****	-0.002
	(0.041)	**(0.068)**	(0.012)
SIZE	2.646	-0.238	**0.216*** **
	(1.902)	(1.333)	**(0.081)**
TANG	5.790	**13.389***	0.372
	(6.498)	**(8.260)**	(0.573)
Number of employees	**-3.720***		
	(2.333)		
Specification			
M_1	-5.376	-4.778	
M_2	1.208	-0.265	
Sargan test	χ^2 (163)=161.21	χ^2 (134)=137.63	
χ^2 ( ) prob	0.52	0.40	
Observations	1461	1477	1086
Log-likelihood			-202.15
χ^2			22.97
p-value			0.04

*Notes to Table 7: The dependent variable in Model (4a) is the total per cent of shares held by employees (including managers), former employees and their relatives. The dependent variable in Model (4b) is the total per cent of share blocks held by privatization investment funds. Two step GMM results are reported in Model (4a) and Model (4b). Windmeijer (2005) robust standard errors in parentheses. Four lags of all variables used as instruments in the GMM procedure. The Sargan test for over-identifying restrictions (obtained from second-step results) tests the validity of the instrument set. M_1 and M_2 are tests for first and second-order autocorrelation in differenced residuals. The dependent variable in Model (5) is a binary response variable, taking on the value 1 if the first largest shareholder is a state fund and if this fund holds less than (or equal to) 20 per cent of ownership, and 0 otherwise. In this model we report Probit estimates. Standard errors are clustered by firm. All regressions include common time effects. Probit regression in addition includes industry dummies. ***, ** and * denote statistical significance at 1, 5 and 10 percent level respectively. Constant not reported.*

Variables: LEVERAGE - share of debt in total assets, in percent; RISK – ratio of standard deviation of sales for a given firm to the standard deviation of sales for the median firm in the industry; ROA – return on assets in percent; SIZE – logarithm of firm sales expressed in thousand of 2000 constant Slovenian tolars (1 euro = 239 tolars); TANG – share of fixed assets in total assets.

Table 8: Partial correlation coefficients for the difference in the ownership share of the two (three) largest shareholders and selected firm and owner specific variables

	(C1-C2)		(C1-C2) + (C2-C3)	
	Coef.	**Std. Err.**	**Coef.**	**Std.Err.**
Total firm sales (in million EUR)	-0.01*	0.01	-0.024*	0.01
Number of employees	-0.001**	0.055	-0.002	0.001
ROA	-0.125	0.003	-0.142***	0.052
LEVERAGE	0.002	0.026	0.030	0.025
RISK	-0.082*	0.050	-0.107**	0.057
HOM_{12}	-4.460***	1.067	-2.892***	1.047
HOM_{123}	-5.087***	1.397	-4.811***	1.383***
State fund as the first largest shareholder (STATE)	-21.548***	2.112	-4.968***	0.810
State fund as the second largest shareholder	-0.125	1.349	-2.925**	1.319
PIF as the largest shareholder (PIF)	-10.022***	1.207	--11.152***	1.158
PIF as the second largest shareholder	-2.642**	1.146	-1.729*	1.122
Industrial corporation as the largest shareholder	14.925***	1.072	15.751***	1.026
EMPLOYEE shares	-0.286***	0.0215	-0.612***	0.021
Total state funds' ownership	-0.326***	0.040	-0.358***	0.040
$STATE^{NON\text{-}LARGEST}$	-0.548***	0.053	-0.627***	0.052
Total PIF ownership	0.004	0.021	0.039*	0.021
$PIF^{NON\text{-}LARGEST}$	-0.528***	0.043	-0.433***	0.042

*Notes to Table 8: The table reports the values and the corresponding standard errors of the partial regression coefficients from 17 separate regressions of the firm or owner specific characteristics on the difference in the ownership share of the two largest owners or three largest owners, respectively. The regressions condition on industry and time effects. ***, ** and * denote statistical significance at 1, 5 and 10 percent, respectively.*
Variables: LEVERAGE - share of debt in total assets, in percent; RISK – ratio of standard deviation of sales for a given firm to the standard deviation of sales for the median firm in the industry; ROA – return on assets, in percent; HOM_{12} - dummy variable for firms where the first and the second largest blockholder are of the same identity; HOM_{123} - dummy variable for firms where the first, the second and the third largest blockholder are of the same identity; STATE – dummy variable for firms where the largest blockholder is a state fund; PIF – dummy variable for firms where the largest blockholder is a privatization investment fund; EMPLOYEE shares stands for total percent of shares owned by employees (including managers), former employees and their relatives. Total state fund and PIFs ownership denotes the total percentage of block ownership held by state funds and PIFs, respectively. $PIF^{NON\text{-}LARGEST}$ is the fraction (in %) of non-largest blocks held by privatization investment funds; $STATE^{NON\text{-}LARGEST}$ is the fraction (in %) of non-largest blocks held by state controlled funds (in %);

Table 9: GMM Regression on the determinants of power distribution in unlisted privatized firms

	HI_123	*HI_123*	*HI_123*	*HI_123*	*HI_123*
	Model (6)	**Model (7a) no majority owner**	**Model (7b)**	**Model (8a)**	**Model (8b) majority owner**
HI_123_{t-1}	**0.175****	**0.165****	**0.160****	**0.168*****	**0.225*****
	(0.068)	**(0.087)**	**(0.071)**	**(0.059)**	**(0.085)**
Owner characteristics					
HOM_{12}	**-0.023***		**-0.021***		**-0.045****
	(0.013)		**(0.014)**		**(0.023)**
HOM_{123}		**-0.033****			
		(0.017)			
STATE			-0.001		
			(0.035)		
PIF			-0.003		
			(0.021)		
$PIF^{NON-LARGEST}$				**-0.001****	**-0.001*****
				(0.0003)	**(0.004)**
EMPLOYEE shares	-0.001	**-0.002****	-0.001	**-0.001***	**-0.005*****
	(0.001)	**(0.001)**	(0.0001)	**(0.0006)**	**(0.002)**
Firm characteristics					
LEVERAGE	0.001	-0.000	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
RISK	0.0003	-0.000	0.000	-0.000	0.000
	(0.0003)	(0.000)	(0.000)	(0.000)	(0.002)
ROA	-0.000	-0.000	-0.000	-0.000	-0.001
	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
SIZE	-0.016	-0.014	-0.021	-0.017	-0.01
	(0.017)	(0.014)	(0.015)	(0.017)	(0.031)
TANG	0.021	-0.095*	0.017	0.039	0.095
	(0.087)	(0.081)	(0.088)	(0.079)	(0.151)
Specification					
M_1	-2.998	-3.30	-3.00	-3.23	-3.33
M_2	0.389	-1.61	0.780	0.97	1.125
Sargan test	χ^2 (152)=139.818	χ^2 (152)=153.98	χ^2 (161)=146.23	χ^2 (152)=150.69	χ^2 (161)=156.33
χ^2 ( ) prob	0.75	0.44	0.77	0.60	0.59
Number of obs.	1509	920	1509	1509	587

*Notes to Table 9: The dependent variable is the sum of squared differences between the stakes held by the three largest blockholders (HI_123). Two-step GMM results. Windmeijer (2005) robust standard errors in parentheses. All regressions include common time effects. ***, ** and * denote statistical significance at 1, 5 and 10 percent level respectively. Four lags of all variables used as instruments in the GMM procedure. The Sargan test for over-identifying restrictions (obtained from second-step results) tests the validity of the instrument set. M_1 and M_2 are tests for first and second-order autocorrelation in differenced residuals. Constant not reported.*

Variables: LEVERAGE - share of debt in total assets, in percent; RISK – ratio of standard deviation of sales for a given firm to the standard deviation of sales for the median firm in the industry; ROA – return on assets, in percent; SIZE – logarithm of firm sales expressed in thousand of 2000 constant Slovenian tolars (1 euro = 239 tolars); TANG – share of fixed assets in total assets; HOM_{12} - dummy variable for firms where the first and the second largest blockholder are of the same identity; HOM_{123} - dummy variable for firms where the first, the second and the third largest blockholder are of the same identity; STATE – dummy variable for firms where the largest blockholder is a state-controlled fund; PIF – dummy variable for firms where the largest blockholder is a privatization investment fund;

$PIF^{NON\text{-}LARGEST}$ is the fraction (in %) of non-largest blocks held by privatization investment funds; EMPLOYEE shares denotes the total percent of shares owned by employees (including managers), former employees and their relatives.

Table 10: Logit (FE) estimates of the determinants of shared power in unlisted privatized firms

	$(C_1 \leq 50)$ and $(C_1\text{-}C_2) \leq 5$		
	Model (9a)	**Model (9b)**	**Model (9c)**
Owner characteristics			
HOM_{12}	**0.545*** **	**0.531** **	**0.378***
	(0.245)	**(0.242)**	**(0.240)**
STATE		**2.027*** **	
		(0.506)	
PIF		0.308	
		(0.307)	
EMPLOYEE shares	**0.029*** **	**0.029*** **	
	(0.008)	**(0.008)**	
$PIF^{NON\text{-}LARGEST}$			**0.050*** **
			(0.013)
$STATE^{STATE\text{-}NONLARGEST}$			-0.017
			(0.018)
Firm characteristics			
LEVERAGE	-0.001	-0.005	-0.005
	(0.011)	(0.011)	(0.010)
RISK	**0.029*** **	**0.031*** **	**0.028** **
	(0.010)	**(0.012)**	**(0.011)**
ROA	-0.01	-0.01	-0.007
	(0.009)	(0.009)	(0.01)
SIZE	**0.443** **	**0.516** **	**0.483** **
	0.194	**(0.232)**	**(0.227)**
TANG	0.340	0.083	0.010
	(0.930)	(0.937)	(0.99)
Specification			
Observations	1081	1081	1081
Log-likelihood	-390.22	-367.90	-384.78
χ^2	43.21	54.27	33.37
p-value	0.00	0.00	0.00
Hausman test	55.82(0.00)	40.93(0.00)	193.38(00)

*Notes to Table 10: The dependent variable is a binary response variable, which we assign the value 1 when the largest shareholder holds 50 or lower percent of ownership rights, and the difference between the two largest blocks does not exceed 5 percentage points, and zero otherwise. Logit Fixed effects results. Standard errors clustered by firm. Common time effects included. Constant not reported. ***, ** and * denote statistical significance at 1, 5 and 10 percent level respectively. The drop in the number of observations (in comparison to Table 9) is due to fact that the Logit Fixed effects model drops all observations with no variation in the dependent variable over time.*
Variables: LEVERAGE - share of debt in total assets, in percent; RISK – ratio of standard deviation of sales for a given firm to the standard deviation of sales for the median firm in the industry; ROA – return on assets, in percent; SIZE – logarithm of firm sales expressed in thousand of 2000 constant Slovenian tolars (1 euro = 239 tolars); TANG – share of fixed assets in total assets; HOM_{12} - dummy variable for firms where the first and the second largest blockholder are of the same identity; STATE – dummy variable for firms where the largest blockholder is a state fund; PIF – dummy variable for firms where the largest blockholder is a privatization investment fund; $PIF^{NON\text{-}LARGEST}$ and $STATE^{NON\text{-}LARGEST}$ is the fraction (in %) of non-largest blocks held by privatization investment funds and state-controlled funds, respectively; EMPLOYEE shares denotes the total percent of shares owned by employees (including managers), former employees and their relatives.