Potential of the State to Control Privatized Firms

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Abstract

The privatization strategy in many transition economies involved the creation of a special government agency that administered state property during privatization programs as well as after the privatization was declared complete. The National Property Fund (NPF) was the agency in the Czech Republic. In many firms the state kept property long after the privatization was completed. We analyze the control potential of the state exercised through the NPF via the control rights associated with capital stakes in firms along with special voting rights provided by law. Based on a complete data set on assets as well as the means of control in privatized firms we conclude that for most of the 1994–2005 period, the state control potential was extensive and certainly larger than has been found by earlier research.

Keywords: privatization, state control potential, golden share, strategic firms.
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1. Introduction and Motivation

At the beginning of the transformation process in Central Europe, privatization was largely considered the foundation of the entire transition process. The so-called Washington Consensus emphasized privatization and the belief that private ownership together with market forces would guarantee efficient economic performance. However, it was also often recognized that privatization on its own might not be sufficient and that systemic changes and policy reforms were a prerequisite for successful transition. The transfer of ownership rights was seen by most academics and policy makers as crucial for the efficient allocation of resources and economic growth (Estrin, Hanousek, Kočenda and Svejnar, 2007). Truly, transition economies carried out a major ownership transformation that made the share of the private sector in GDP increase from extremely low levels to between 60% and 90% (see EBRD, 2001 and 2006). They also strived to establish market-oriented institutions and a legal system that would improve the role of the state in providing infrastructure vital to the newly emerging market economy (state governance). Despite the considerable achievements during the first decade of transition, Hellman and Schankerman (2000) showed that good state governance was not established across many transformation economies by 1999.

Privatization schemes in many European emerging economies involved the creation of a special government agency that assumed the role of the administrator of state property. The state often remained the ultimate owner of numerous firms long after privatization was concluded, a situation that has been documented for the Czech Republic (Kočenda, 1999). In the Czech Republic, the National Property Fund (NPF) acted as the governmental administrator of the property that remained in the possession of the state.[1] As the NPF was dissolved at the end of 2005, it is relevant to study the extent of state control potential in privatized firms from a long-term perspective. In this paper, we examine the dynamics of changes in the structure of ownership, the extent of state ownership and the potential for state control in privatized Czech firms over the period 1994–2005, i.e. from the end of privatization to the dissolution of the NPF.

[1] The National Property Fund was established on 24 May 1991 in order to implement privatization decisions and to temporarily control shares that were owned by the state before being privatized. The NPF was established based on the Act of the Czech National Council No. 171/1991. The NPF terminated its operations on 31 December 2005 based on Act No. 178/2005 from 28 April 2005.

The identification of the extent of state control is important as state control in privatized firms may have potentially negative effects due to several reasons. Shleifer and Vishny (1994) argue that inferior performance (in terms of value maximization) of state firms can be expected because state officials are prone to impose on the management of state companies a variety of goals, such as the minimization of layoffs, political patronage, or protecting other state firms' markets, and these goals differ from those associated with the quest for economic efficiency. Hence, the performance of state-owned enterprises (SOEs) suffers from the above political costs as well as agency costs (Shleifer and Vishny, 1994; Qian, 1996).[2] Further, following other-than-economic objectives, firms with state control are less likely to innovate and restructure their line of production. In this respect, Frydman, Hessel, and Rapaczynski (2006) provide evidence that product restructuring is significantly more revenue effective in firms owned by outside investors than in firms owned by the state or insiders. Restructuring was often delayed in privatized firms where the state retained various degrees of ownership. Bennett, Estrin, and Maw (2005) argue that the state would choose to retain some ownership in order to raise its bargaining power for the later sale of the residual state property and to increase its price. This way a higher sale price was at the expense of corporate efficiency due to delayed restructuring.

Further, direct or indirect state control can provide grounds for retaining or creating a monopoly, which is generally known to produce lower output at higher prices when compared to standard competition. On other hand, monopoly power also poses a dilemma for the state as owner because a firm that is privatized with monopoly power can be sold for a higher price than if it is divided into units to create a more competitive market structure (Estrin, 1994). Finally, the hardening of budget constraints (i.e. curtailing firms' access to formal or informal state subsidies) is widely accepted to have a positive effect on corporate restructuring. However, soft budget constraints can be practiced between state-controlled credit providers and firms while being hidden by less-than-evident links among firms and financial institutions under state control. Preferential treatment of state-controlled firms by state-controlled financial intuitions constitutes the

[2] The agency costs result from the managerial pursuit of private benefits at the expense of the firm. The agency costs were likely present in the early phase of the transition due to the weak monitoring of managers by the state as owner combined with the absence of external legal constraints.

emergence of a subsidy. Frydman, Gray, Hessel, and Rapaczynski (2000) show that shortly after privatization, firms owned by the state in Central Europe are often unable to perform on par with private firms and are riskier to their lenders as they are less able to repay their debts. In effect, extending soft credit to state-controlled firms likely yields a self-propagating deterioration of corporate fiscal discipline. Despite the importance of the potential consequences of state ownership, addressing this issue on the set of firms we use is beyond the scope of our paper and we therefore concentrate on quantifying the state control.

We employ a transparent method that enables us to quantify the extent of potential state control over the assets of privatized firms in the decade after the end of the privatization period. Complete data about assets, shares and means of indirect control in privatized firms enable us to formulate a relatively decisive conclusion about one phenomenon of the Czech transition which to date, due to the non-existence of relevant data, could not have been studied at the appropriate level. Based on the data analysis, we suggest taking into account the potential of the state to control the assets of privatized firms, since firms in the economy under such potential control cannot be considered truly private. This study supports the conclusion of Mlčoch (1995), writing during privatization that "the role of the state is far more important than it may appear" at first glance and that "the state is still an indirect shareholder" in "an important sector of the economy" (p. 155).

The rest of the paper is organized as follows. In section 2 we review the privatization process in the Czech Republic and in section 3 we introduce our data. Section 4 provides analysis of the direct, indirect, and combined control of the state over the firms in the NPF portfolio. In section 5 we provide an assessment of the extent of the state control in the economy. Conclusions are presented in section 6.

2. Privatization and State Ownership

A massive privatization program was administered in the Czech Republic in the first half of the 1990s under three different schemes: restitution, small-scale privatization, and large-scale privatization. We only reiterate the main aspects of the Czech privatization that are relevant for this study since the process has been extensively described in the literature, e.g., Hanousek and Kroch (1998) and Kočenda (1999), among others. The first two schemes began in 1990 and were most important during the early years of the transition. Large-scale privatization, by far the most important scheme, began in 1991, was completed in early 1995, and allowed for various privatization techniques. Small firms were usually auctioned or sold in tenders. Many medium-sized businesses were sold in tenders or to predetermined buyers in direct sales. Most large and many medium-sized firms were transformed into joint stock companies and their shares were distributed through voucher privatization (almost one-half of the total number of all the shares of all joint stock companies were privatized in the voucher scheme), sold in public auctions or to strategic partners, or transferred to municipalities.[3]

The voucher scheme was part of the large-scale privatization process. Two waves of voucher privatization took place, in 1992–93 and 1993–94.[4] Both waves were administered in the same manner and there were no differences in their set-up. During the scheme, a total of 1664 firms were privatized: 988 in the first wave and 676 firms in the second wave; from this number 185 firms were privatized in both waves in various proportions of their assets. All Czech citizens over the age of 18 who resided in the Czech Republic could participate in the voucher process.[5] For each wave every eligible citizen was authorized to buy a voucher book that contained 1000 investment "points" for 1000 Czech crowns (CZK), about a week's wage. Before the privatization started, individuals had the option of assigning none, some, or all of their points to Privatization

[3] The method of the privatization of each state-owned firm was decided on the basis of an officially accepted privatization project. According to the law, all state-owned enterprises were selected for either the first or the second privatization wave, or they were temporarily exempted. Each selected firm had to submit an official privatization proposal that was usually crafted by the firm's management under the tutelage (and responsibility) of its sectoral ministry. Any domestic or foreign corporate body or individual was allowed to present a competing project that was to be considered on an equal footing with the official one.

[4] A general outline of a mass privatization using vouchers emerged in 1988. Lewandowski (1997) describes: "Mass privatization was a unique response to the post-communist challenge. The idea of distributing vouchers to promote equitable popular participation in privatization was elaborated by market-oriented advisers to the Solidarity movement in Gdansk, Poland, in mid-1988. Vouchers were intended to make up for insufficient supply of capital; as a special type of investment currency, they would be allocated to all citizens and tradable for shares of privatized companies. The concept was presented at a conference in November 1988—when communists were still in power—in response to a solicitation for proposals on how to transform Polish economy." A description of the method was published by Lewandowski and Szomburg (1990). The voucher scheme was creatively adopted in several European transition countries including the Czech Republic.

[5] For the first wave in the Slovak Republic as well, since only in 1993 was Czechoslovakia split into two independent nations: the Czech and Slovak Republics.

Investment Funds (PIFs): newly established financial firms vaguely similar in their scope of activities to closed-end mutual funds.[6] As a summary, Table 1 shows the basic figures related to the two-wave process of voucher privatization.

At the beginning it was the Ministry of Privatization that executed the privatization process. The privatization authorities had rough goals regarding how much property they wanted to include in the voucher program, and hence how much of the control should stay with the state. To administer the property that remained in the state's possession, the NPF was established as a state institution that was entitled with legal power to exercise property rights over companies that were fully or partially owned by the state. By the end of the scheme in 1994 the NPF held on average about a 25% stake in privatized firms, but the extent varied greatly.[7] The NPF was dissolved at the end of 2005 and the remaining agenda was transferred to the Ministry of Finance. The official decision to dissolve the NPF was grounded in the government resolution from 2002 (Government, 2008a). Based on this resolution the Fund completed its mission, which was chiefly a temporary administration of the assets of state firms selected for privatization or the administration of state assets in other legal bodies and their subsequent transfer to new private owners. The dissolution of the NPF was also part of the public finance reform. The Ministry of Finance currently executes ownership rights in firms which are to be privatized in the future. As of the end of April 2008 the Ministry administers stakes in 74 firms. The total value of the stakes that the Ministry holds in these firms amounts to more than 78,6 billion CZK and the total value of the assets of these firms amounts to more than 145,2 billion CZK (Government, 2008b). Out of this portfolio, four firms are strategic companies where the Ministry holds controlling stakes

[6] The regulation of PIFs evolved gradually through Decree no. 383/1991, its Amendment No. 62/1992, and Act No. 248/1992. The most important clauses restricted each privatization fund from investing more than 10% of the points acquired in the voucher scheme in a single company and obtaining in exchange more than 20% of the shares in any company. Privatization funds established by a single founder were allowed to accumulate up to 40% of shares in a given company, but this cap was later reduced to 20%. Many privatization funds circumvented the cap through mergers. The Act also prohibited PIFs founded by financial institutions from purchasing the shares of other financial institutions to prevent excessive concentration of financial capital (for details see Kotrba and Svejnar, 1994).

[7] Despite the massive scale of the voucher privatization, by 1998 there still remained a substantial number of companies where the state was involved. Altogether 1849 companies of a book value of 367.5 billion CZK entered both waves of voucher privatization. In 1998 the state was still involved in 369 companies with an overall book value of more than 440 billion CZK. The book value of the state share in these companies amounted to almost 177 billion CZK (Kočenda, 1999).

(the percentage extent is indicated in parentheses): the monopoly electricity producer (ČEZ; 65.34%), the monopoly domestic and international oil pipeline systems (Čepro and MERO; 100% each), and the national air carrier Czech Airlines (56.92 %). These firms have substantial importance for the Czech economy.

3. Data

We have assembled a large data set on the extent of ownership in a large sample of Czech firms over the period 1994–2005. The beginning of our data sample coincides with the end of the privatization schemes, e.g. the starting point from which such data is meaningful and available. The end of our sample coincides with the end of the NPF as an institution. The data come from the archives of the NPF, the former Ministry of Privatization, the Prague Stock Exchange, the Center for Securities in Prague, the commercial database Aspekt, and the Commercial Register of the Czech Republic. Details on the number of firms, the value of their assets, and the extent of the ownership stakes of the state are given below in Tables 2–5.

From our data we are able to isolate the specific extent of ownership held by the state as well as to distinguish various means of its direct and indirect control along with the amount of assets under control. In this respect we are able to trace the development of state control in a number of firms and also control over their assets over time.

4. Persistency of State Ownership and Extent of Control

4.1. Direct control

The NPF, as the legal owner, was involved to different degrees in a vast number of companies. The degree was represented by the number of shares the state held in each company that belonged to the portfolio of the NPF. Table 2 presents the total number of firms in the NPF portfolio along with the division of proportional stakes. In the divisions of stakes that allow for effective control we follow Hanousek, Kočenda, and Svejnar (2007). According to their taxonomy, depending on the extent of the stake, different blockholders have under Czech law different opportunities to influence corporate governance. In particular, the law provides important rights of ownership and control for owners with majority ownership (more than 50% of shares), blocking minority ownership (more than 33% but not more than 50% of shares) and legal minority ownership (at least 10% but not more than 33% of shares).

Majority ownership grants the owner the right to staff management and supervisory boards, to alter and transfer firm assets and to make crucial strategic decisions at general shareholder meetings. Through management and supervisory boards, majority ownership also facilitates more direct executive control of the company. Blocking minority ownership gives the right to block a number of decisions, such as those related to increasing or reducing assets and implementing major changes in business activities that the majority shareholder may strive to implement at the general shareholder meeting. Finally, legal minority ownership is potentially important because the law entitles the holder of this stake to call a general shareholder meeting and obstruct its decisions by delaying their implementation through lengthy court proceedings. Effective legal minority shareholders, including the state, may thus use their ownership position to delay or completely block the implementation of decisions by stronger shareholder(s).

In Table 2, we present the absolute and relative number of firms in the NPF portfolio. In the first column we show the total number of firms in a given year. The headings of subsequent columns show the ownership categories defined in the preceding paragraphs. For each category, the left column contains the absolute number of firms and the right column contains their representation as a percentage of the portfolio for a given year. The numbers in Table 2 show that after 1995 the number of firms in the NPF portfolio was decreasing in general. The number of firms where the state held less than 10% was getting smaller after 1995. A similar decrease can be seen for other “minority” categories. The number of firms where the state had majority control (a combination of stakes of more than 50%, including full 100% control) initially increased after 1996 but gradually decreased afterwards. In terms of relative proportions, the share of firms in the NPF portfolio under effective state control during 1997–2005 ranged within a stable interval of 7–9% for the majority category, and within 7–11% for the 100% category (full control). An increase in the number of firms with full state control from 18 in 1996 to 44 in 1997 was followed by a slow decrease to 19 firms in 2001 and then subsequently to 9 in 2005. The above evidence can be complemented by the findings of Kočenda and

Valachy (2002) who document that for the years 1996–1999 the stakes of the state exhibited a tendency to increase, while their absolute number decreased. This is in accord with the intent of the state to sell residual state property but also to maintain power in companies of special interest.

Enterprises in which the state kept more than 50% of shares represent only a relatively small portion of all firms, namely 10% to 19% of all firms in the NPF portfolio, depending on the year. From this perspective the extent of state control does not seem to be large. However, this conclusion is too simple as it does not account for the size of firms and their importance. Therefore, Table 3 takes into account the total assets of each firm in the analysis of the extent of state control. The total assets of the firm can be considered as a proxy for the size of each firm in the NPF portfolio. Hence, it allows inferring the extent of control over the large and important firms in the economy. This enables deriving a perception of the economic power of the companies and consequently the extent of wealth that is controlled by the state through direct ownership channels, e.g. via the amount of shares.

For each ownership category in Table 3 the value in the left column indicates the sum of the absolute value of the total assets of firms from a given category in a given year. Specific left column values were defined for five ownership categories. $V_t^1 = \sum_{j=1}^{N} A_{jt} \left[NPF < 10\% \right]$ defines the sum of the absolute values of the total assets of firms in the NPF portfolio in year t in which the NPF held less than a 10% share (A_{jt} is the accounting value of the total assets of firm j in the NPF portfolio in year t). Further, $V_t^2 = \sum_{j=1}^{N} A_{jt} \left\{ \left[NPF >= 10\% \right] \wedge \left[NPF < 33\% \right] \right\}$ defines the sum of the absolute values of the total assets of the firms in the NPF portfolio in year t in which the NPF held more than a 10% and less than a 33% share. In the same manner we define the values for the ownership categories with the following NPF shares:

$V_t^3 = \sum_{j=1}^{N} A_{jt} \left\{ \left[NPF >= 33\% \right] \wedge \left[NPF < 50\% \right] \right\}$,

$V_t^4 = \sum_{j=1}^{N} A_{jt} \left\{ \left[NPF >= 50\% \right] \wedge \left[NPF < 100\% \right] \right\}$, and $V_t^5 = \sum_{j=1}^{N} A_{jt} \left[NPF = 100\% \right]$. The number of ownership categories (five) does not change over time but the number of firms in the portfolio differs from year to year. The overall value of a portfolio V in a given year t is the sum of the absolute values of the total assets of firms across the categories ($V_t = \sum_{j=1}^{N} V_t^j$).

The evidence in Table 3 undermines the earlier conclusion about the small extent of the state control potential based on the results in Table 2. It is clear that the state kept tight control over the largest firms. We consider the state to fully control a firm if the share owned by the state is bigger than 50%, although it is common to use an even smaller percentage to define control in a firm. This way we prevent speculation about the proportion of state ownership sufficient to effectively control a firm. The absolute value of the total assets of the firms where the state kept more than a 50% but less than a 100% stake is larger than the absolute value of the total assets of firms in any other single category for any given year with the exception of 1995 and 1996. Even more important is the fact that the value of the assets in firms with more than a 50% stake held by the state (including 100%) was during 2002–2005 larger than the combined value of the assets of the firms in the remaining categories.

The reason behind this development is that the early post-privatization ownership structure emerged when shares from the second wave were distributed in early 1995 and rapid reallocation of shares across new owners took place in 1995–96 during the so-called "third wave" of privatization as new owners, including privatization funds and the state, reshaped their initial post-privatization portfolios of acquired companies. The dominance of the state (in terms of assets) in firms with majority control from 1997 on also shows that the assets of these firms had been rising faster than the value of other firms in the rest of the economy. Hence, the state was a player that aimed for control and knew what to control.

Depending on the investor, the swapping of shares in 1995–96 was aimed at (a) portfolio diversification, (b) obtaining concentrated ownership in specific firms and industries or (c) achieving conformity with legal requirements to prevent excessive stakes being held by privatization funds. Investors, especially PIFs, engaged in direct swaps of large blocks of shares, and off-market share trading was common. The 1995–96 ownership changes were massive, unregulated and frequently unobservable to outsiders, including researchers. More stable and more meaningful patterns of ownership emerged in 1996 (Hanousek, Kočenda and Svejnar, 2007). The absolute value of the total assets of firms with a clear state majority decreased only very slowly, from 141 in 1996 to 110 in 2004. Also, the state kept a relatively stable portfolio of firms with 100% control and even strengthened its positions.[8] In the categories of legal and blocking minorities the state has been decreasing its stakes in general, which is in line with the decreasing amount of total assets in these categories.

The analysis would be incomplete without inspecting the developments of the control over the firms' assets in proportions over time. In Table 3, the right column presents the relative value of the total assets of firms in each category of direct control as a proportion of the total for a given year. Similar to previous findings, extensive direct control by the state is confirmed. Further, relative control increases: as the portfolio reduces in absolute terms, state control over the assets in firms increases. The reason is that state kept the largest and most important firms under its direct control for the entire period of economic transformation. The correlation between the size of a firm and the amount of taxes and dividends paid is very high. In terms of total assets, in 2004 the state, via stakes of 50% and more, directly controlled assets of 118 billion CZK out of its total 185 billion CZK portfolio. In relative terms this represents the ability of the state to directly control 63% of the assets in the NPF portfolio. One cannot avoid concluding that, despite the voucher privatization, the state maintained its influence over a significant part of the Czech economy.

4.2. Indirect control

State control over a firm may be ensured by various means. The simplest way of control is described in the preceding section: control through the number of shares held by the state that represent the associated voting rights. Another way is embodied in the "golden" share. The golden share was introduced by Act No. 210/1993, modifying Act No. 92/1991.[9] The act set the conditions for property transfer from the state to others with the

[8] For example buying back the privatized stake in the national air carrier (Czech Airlines).
[9] The state using a golden share as an instrument of control is not isolated to emerging markets. Bel and Trillas (2005) show that Telefonica, the former telecommunications public monopoly in Spain, was totally transferred to the private sector in 1997, after the state sold its last stake in the company. However, a political mechanism of control was in place after privatization, in particular via the golden share. Some deals that would have been positive for shareholders were not completed, and some of the deals that were completed had a negative effect on shareholder value. The operation of various managerial disciplining devices in Telefonica was not optimal. No strategic private block-holder exercised true authority in the

aim of protecting the special interests of the state in firms privatized in large-scale privatization. The veto rights associated with the golden share usually relate to the scope and line of business activity and depend on each company's charter. When the state sells its golden share, it gives up its rights in the company and the golden share ceases to exist.

The instrument of the golden share in the Czech Republic does not conform fully to that found in other countries since it is limited to being solely an instrument of state control and does not serve as a means of attracting free or less expensive credit (Bortolotti and Faccio, 2004). Such an instrument, in the form of a single share with a special status, allows the state to prevent any major changes in a company where the state holds such a share. Utility companies are a typical example of state control through the golden share, but not the only example, as the golden share has been part of the ownership structure in other industries as well. Further, a number of companies were declared strategic firms and enjoyed a special status that was embedded in related legal provisions. Similarly to the golden share instrument, in legally declared strategic firms the state was able to exercise greater control than would correspond to its ownership rights derived from the extent of its share holdings. Finally, in some companies the two instruments of indirect control were combined.[10]

Table 4 summarizes the extent of the potential of indirect state control in firms. In absolute terms the state exerted control through these indirect means, i.e. the golden share or strategic classification, only in a relatively small number of firms. In relative terms, the proportion of firms with a golden share has been increasing in the amount of standard firms as the proportion of strategic firms remained quite stable.

Finally, Table 5 shows the potential of indirect control measured by the size of the assets of firms under a particular form of indirect control. Indirect state control of the firms' assets changes the picture of the state control in the economy considerably. Table 5 suggests relatively substantial state control. The amount of assets controlled via indirect instruments is substantially higher than the amount of assets of the firms without such control. In 2004, the state was able to control the assets of 124 billion CZK out of a total

company in the period under study. The government's golden share made takeovers impossible and takeover threats ineffective.

[10] See Grundmann and Möslein (2003) for an account of issues related to instruments with special rights in European markets.

185 billion CZK through indirect instruments. As the golden share or strategic classification was associated with companies vital to the economy, their independence from the state did not fully reflect reality. Despite being privatized, the firms and their assets were part of the public economy.

The veto rights associated with the golden share were frequently executed by the state at general shareholder meetings. Numerous decisions by the state were against increasing the basic capital of firms and offering new shares. This way the state prevented the entry of new shareholders and investors bringing new capital, or the participation of relevant townships and communities in the ownership and administration of utility companies, specifically those engaged in water supply. Frequently the state voted against the sale or exchange of estate property in order to keep specific estates under its control or to prevent alleged estate speculation, albeit the nature of such speculation was never defined. These decisions frequently affected the daily business operation of firms. The veto power was also used against the sale and transfer of portions of shares to new shareholders to prevent changes in ownership structures resulting in new majority or blocking minority owners. The state's indirect control was executed in firms across industries and was not targeted at an isolated group. The veto powers were very often used until about 2000 and became relatively less frequent afterwards. The decisions to apply the veto power were prepared by the "Committee for the Exercise of Shareholder's Rights" (Komise pro výkon akcionářských práv) until the end of 2004, and by the "Committee for the Administration and Privatization of Joint Stock Companies" (Komise pro správu a privatizaci akciových společností) in 2005. The decisions were approved by the Executive Board of the NPF. We are unable to provide precise statistics on the number of decisions based on the golden share as we do not have full access to the archives of the former NPF. The summary of the essence of those decisions given above is based on the limited access we had. All decisions are archived and traceable provided access is granted, though.

4.3. Combined control

In order to evaluate the effective control power of the state over companies we combined all the feasible means of control together. Figures 1 and 2 illustrate the developments of the control potential through direct control, i.e. an ownership stake greater than 50% and the associated voting rights, together with indirect control via the golden share, strategic firm classification or both. First, we show the extent of the control potential in terms of the number of firms (Figure 1). Second, we show the extent of the control potential in terms of the amount of assets these firms represent (Figure 2).

The combined data are in line with the previous findings. Figure 1 suggests that there is the biggest increase in the number of firms under combined control immediately after the end of the privatization process. In 1997, the state effectively controls 185 out of a total of 527 firms in the NPF portfolio, i.e. more than 35%. The number of these firms decreases slowly and only after 2000 the number of firms under the state control potential decreases faster. Still, in terms of portfolio proportions the relative number of firms under control remains high. Nevertheless, 52 firms out of a total of 109 firms in the NPF portfolio remain controlled by the state in 2005.

A similar pattern is visible when the control potential is assessed in terms of the assets of the firms in the NPF portfolio. Figure 2 shows that this extent is highest in 1997, when 68% of the assets of all firms in the NPF portfolio were controlled by the state. Assets worth 277 billion CZK out of a total of 408 billion CZK were in this group. The extent decreases slightly over time, however, a significant decline is visible only after 2002. In 2005, i.e. at the end of the relevant period, about 90 billion CZK out of a total 136 billion CZK is under combined control. Based on the shares in the portfolio, the relative ratio of assets under the control of the state was stable from 1998.

The number of firms as well as the size of their assets under combined control decreases over time. However, their magnitudes document that medium and large companies privatized in the early 1990s remained under the control potential of the state dramatically longer than the state suggested. This is an outcome not specific only to the Czech Republic, though. Using the 1999 Business Environment and Enterprise Performance Survey (BEEPS) developed jointly by the EBRD and the World Bank, Hellman and Schankerman (2000) showed that, despite reforms, state intervention in firms' decisions continued well after privatizations were completed in many transition economies.

Another way the state can further increase its control in privatized firms is through pyramids or cross-holdings (see Morck, Wolfenzon and Yeung, 2005 for an overview). In the Czech setting this could happen through privatization investment funds (PIFs) or banks. Due to this, the numbers presented in the preceding sections may actually underestimate the state control in the economy. However, at the moment, lack of data prevents us from analyzing this interesting issue further.

5. The Extent of the Control in the Economy

So far, we have focused on the extent of the control potential within firms in the portfolio of the NPF. In Figure 3, we present the proportion of the control potential relative to other firms not under the influence of the state. Year by year, we present the development of two ratios. The first ratio ($PV_t^{(1)} = V_t^M / V_t^T$) measures the ratio of the value of the assets of the firms in the NPF portfolio controlled by a share majority ($V_t^M = \sum_{j=1}^{N} A_{jt} \cdot I\left[> 50\%\right]$) over the value of all joint stock companies in the Czech Republic ($V_t^T = \sum_{j=1}^{N} A_{jt}$). The second ratio ($PV_t^{(2)} = V_t^{M \vee ZA} / V_t^T$) measures the ratio of the value of the assets of the firms in the NPF portfolio controlled by a share majority or indirectly via a golden share ($V_t^{M \vee ZA} = \sum_{j=1}^{N} A_{jt} \cdot \left\{ I\left[> 50\%\right] \vee I\left[ZA\right] \right\}$) over the value of all joint stock companies in the Czech Republic ($V_t^T = \sum_{j=1}^{N} A_{jt}$). Czech joint stock companies and the value of their assets thus serve as a proxy for the size of the economy. Since the data on the contributions of individual firms to GDP are not available, we use the value of the assets of Czech companies as a supplementary measure of the size of the economy. More precise measurement goes beyond the scope of this paper.

Figure 3 suggests that the peak of the control potential was reached in 1997, when the ratio of controlled and non-controlled assets jumped over 20%. The ratio declines over time; however, it still exceeds 10% in 2000. In the same year, the two ratios converge, which supports the tendency of the state to control firms primarily by the standard instrument of control, via shares.

Since we only consider the firms in the NPF portfolio, companies like Czech Railways, Czech Post, etc. are not included in the control potential of the state. These de facto state firms form a non-negligible part of the economy in terms of the value of assets, the number of employees or total turnover. If we included these firms into the construction of the ratios in Figure 3, the control potential of the state would increase further. Such an analysis, however, requires the precise knowledge of the value of the assets in this kind of company and we leave this for further research.

Despite the substantial extent of control potential, it should not be understood as a gigantic network of day-to-day management. Rather, it is a real control *potential* in cases of important decisions about the economic development of firms, their assets or cash flows between firms and the state. In the same way, the extent of control should not be overemphasized from the viewpoint of firm performance. Hanousek, Kočenda, and Svejnar (2007) document that over the period 1996–1999, which coincides with the period of strongest state control potential, the performance of firms privatized in the large-scale privatization was very similar to that of firms with state ownership.

There is also another relatively important issue related to the state control potential. It is a conflict between the officially published proportion of the private sector in the aggregate output of the economy and the real status quo, which is driven by the state control potential. In Figures 4 and 5, we present the development of the proportion of the private sector in the overall GDP in two ways. Figure 4 illustrates the proportion of the private sector in the GDP according to the EBRD (2001, 2006). Figure 5 shows the proportion of the private sector in the value added according to the Czech Statistical Office. In both cases, one can see a rapid growth of the proportion of the private sector in the economy, lasting from the beginning of transformation to 1994, i.e. the virtual termination of voucher privatization. Slower growth continued over the period 1995–1999/2000, and the proportion of the private sector stabilized afterwards. In the case of both data sources, the production of firms effectively controlled by the state was accounted for as production of the private sector in the period after the end of privatization in 1994. The issue becomes even more important when compared with the data in Figure 3. There, one can see that more than 80% of the total assets in the portfolio of the NPF were effectively controlled by the state in 1997. Taking into account the state control potential over officially private firms, the proportion of the private sector in the overall aggregate production presented in Figures 4 and 5 is clearly overestimated.[11]

Despite the certain overestimation of the proportion of the private sector in the aggregate output of the economy, it is very likely that the phenomenon was only temporary. As Figure 3 shows, the proportion of assets controlled by the state declined to 3% by the end of the period. One can expect that the decline could be reflected in the rise of the proportion of the actual private sector in the aggregate output. If we were able to disentangle the proportion of state-controlled firms in the aggregate output from the proportion of officially private sector firms and see the difference, we expect that the hypothetical line would ascend more slightly for a substantial part of the period and approach the official presentation in Figures 4 and 5 only at the end of that period. This convergence in the combination of corporate and state levels has a parallel in macroeconomic convergence. Kočenda (2001) shows that despite different initial conditions at the beginning of transformation and despite different means of privatization, a certain degree of macroeconomic convergence was reached between the countries of East and Central Europe, including the countries of the Visegrad group, already at the end of the 1990s. The same research suggests that common institutional and economic policies demonstrated a higher degree of correlation with a higher degree of convergence. This result is in line with neoclassical growth theory, which explains the convergence of similar countries.

The gradual departure of the state from controlling positions in privatized firms can be interpreted in a similar way. Such a departure has been a natural result of transformation that has provoked many questions about its extent, sequencing and the moral dimension of property transfers. The moral dilemma between a truly private economy and state control potential remains, and will likely remain for some time, since "demoralization in the course of transformation did not solve any dilemma, instead it evoked dilemmas that are new and more complicated" (Mlčoch, 2003; p.16).

6. Conclusion

[11] The available data sources as well as the scope of this paper do not allow us to quantify the size of the overestimation.

We have analyzed the extent of the control potential of the state in Czech firms privatized in the mass privatization scheme. The property remained for an extended period in the hands of the state even after the privatization scheme was completed, administered by the National Property Fund (NPF), which was set up as a special agency to protect the economic interests of the state. More than a decade of data allows us to explore the behavior of the state in its position as an important owner and co-owner.

The state control in a firm may be exercised by various means. The simplest method of control is through the number of shares held by the state that represent the associated voting rights. Another way is embodied in the "golden" share. Such an instrument, in the form of a single share with a special status, allows the state to prevent any major changes in a company where the state holds such a share. Further, a number of companies were declared strategic firms and enjoyed a special status that was embedded in related legal provisions. Similarly to the golden share instrument, in legally declared strategic firms the state was able to exercise greater control than would correspond to its ownership rights derived from the extent of its share holdings. Also, in some companies the two instruments of indirect control were combined. All of the feasible means of control combined together allow an evaluation of the effective control power of the state over the companies. At its peak, nearly 60% of firms and close to 90% of the assets of the firms in the NPF portfolio were under the effective control potential of the state. The extent decreases slowly and only after 2002 the amount of assets of firms within the state control potential decreases faster.

To conclude, one can say that the extent of state control potential should not be overestimated. On the other hand, our analysis shows that a substantial part of the private sector composed of medium- and large-sized companies privatized in the large-scale privatization were not truly in the private economy over the period 1994–2005. These firms became truly private only after the sale of the remaining shares possessed by the state, the liquidation of golden shares and the consequent decline of the state control potential.

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Table 1. Brief Overview of the Voucher Privatization Scheme

Subject	Wave 1	Wave 2
Number of State Enterprises Entering the Voucher Scheme	988	861
Book Value of Shares Allocated for Vouchers in a Particular Wave (billions of CZK)	212.5	155.0
Number of Participating Citizens (in millions)	5.98	6.16
Average Book Value of Assets per Participating Citizen (CZK)	35,535	25,160
Percentage of Voucher Points Allocated to Privatization Funds	72.2%	63.5%

Source: Kočenda (1999). Note: Wave 2 includes 185 firms not fully privatized in Wave 1.

Table 2
Number of Firms in the NPF Portfolio

Year	Total	Less than 10%		[10% to 33%)		[33% to 50%)		[50% to 100%)		100%	
		absolute	relative	absolute	relative	absolute	relative	absolute	relative	absolute	relative
1994	990	416	42%	376	38%	100	10%	79	8%	19	2%
1995	1048	582	56%	246	23%	99	9%	101	10%	20	2%
1996	760	426	56%	183	24%	69	9%	64	8%	18	2%
1997	527	284	54%	108	20%	50	9%	41	8%	44	8%
1998	351	214	61%	46	13%	35	10%	24	7%	32	9%
1999	293	183	62%	29	10%	29	10%	27	9%	25	9%
2000	264	165	63%	21	8%	27	10%	25	9%	26	10%
2001	235	157	67%	16	7%	25	11%	18	8%	19	8%
2002	190	133	70%	12	6%	15	8%	17	9%	13	7%
2003	164	116	71%	14	9%	9	5%	12	7%	13	8%
2004	137	93	68%	14	10%	5	4%	10	7%	15	11%
2005	109	75	69%	11	10%	5	5%	9	8%	9	8%

Note: The second column shows the total number of firms in the NPF portfolio in a given year.Subsequent columns show the absolute and relative number of firms in five categories relating ownership concentration to the extent of direct control of the state.

Table 3
Absolute Value of Total Assets of Firms in the NPF Portfolio

Year	Total	Less than 10%		[10% to 33%)		[33% to 50%)		[50% to 100%)		100%	
	absolute	absolute	relative	absolute	relative	absolute	relative	absolute	relative	absolute	relative
1994	353	104	29%	101	29%	33	9%	115	32%	1	0%
1995	579	224	39%	72	12%	71	12%	206	36%	7	1%
1996	490	181	37%	71	15%	92	19%	141	29%	6	1%
1997	408	121	30%	38	9%	105	26%	138	34%	7	2%
1998	350	98	28%	12	4%	101	29%	133	38%	6	2%
1999	330	94	29%	10	3%	79	24%	141	43%	5	2%
2000	315	88	28%	8	3%	75	24%	138	44%	5	2%
2001	289	69	24%	8	3%	72	25%	131	45%	9	3%
2002	270	66	24%	5	2%	52	19%	141	52%	5	2%
2003	229	56	24%	23	10%	35	15%	111	48%	5	2%
2004	185	52	28%	15	8%	0	0%	110	59%	8	4%
2005	136	49	36%	14	10%	0	0%	68	50%	5	3%

Note: Absolute values are expressed in billions of CZK.

Table 4
Number of Strategic Firms in the NPF Portfolio

Year	Total	Gold		Strategic		Gold&Strategic		Standard	
		absolute	relative	absolute	relative	absolute	relative	absolute	relative
1994	990	Data not available							
1995	1048								
1996	760								
1997	527	77	15%	23	4%	19	4%	408	77%
1998	351	75	21%	21	6%	19	5%	236	67%
1999	293	72	25%	19	6%	19	6%	183	62%
2000	264	68	26%	17	6%	19	7%	160	61%
2001	235	44	19%	15	6%	19	8%	157	67%
2002	190	37	19%	13	7%	8	4%	132	69%
2003	164	37	23%	9	5%	1	1%	117	71%
2004	137	34	25%	8	6%	0	0%	95	69%
2005	109	34	31%	5	5%	0	0%	70	64%

Table 5
Absolute Value of Total Assets of Strategic Firms in the NPF Portfolio

Year	Total	Gold		Strategic		Gold&Strategic		Standard	
		absolute	relative	absolute	relative	absolute	relative	absolute	relative
1994	353	Data not available							
1995	579								
1996	490								
1997	408	37	9%	177	43%	57	14%	138	34%
1998	350	36	10%	175	50%	56	16%	83	24%
1999	330	34	10%	165	50%	56	17%	75	23%
2000	315	22	7%	158	50%	56	18%	78	25%
2001	289	18	6%	151	52%	56	19%	64	22%
2002	270	19	7%	145	54%	43	16%	62	23%
2003	229	19	8%	118	51%	24	10%	69	30%
2004	185	17	9%	107	58%	0	0%	61	33%
2005	136	17	13%	65	48%	0	0%	53	39%

Note: Absolute values are expressed in billions of CZK.

Figure 1
Combined control potential:
Absolute and relative numbers of firms in the NPF portfolio (in billions of CZK)

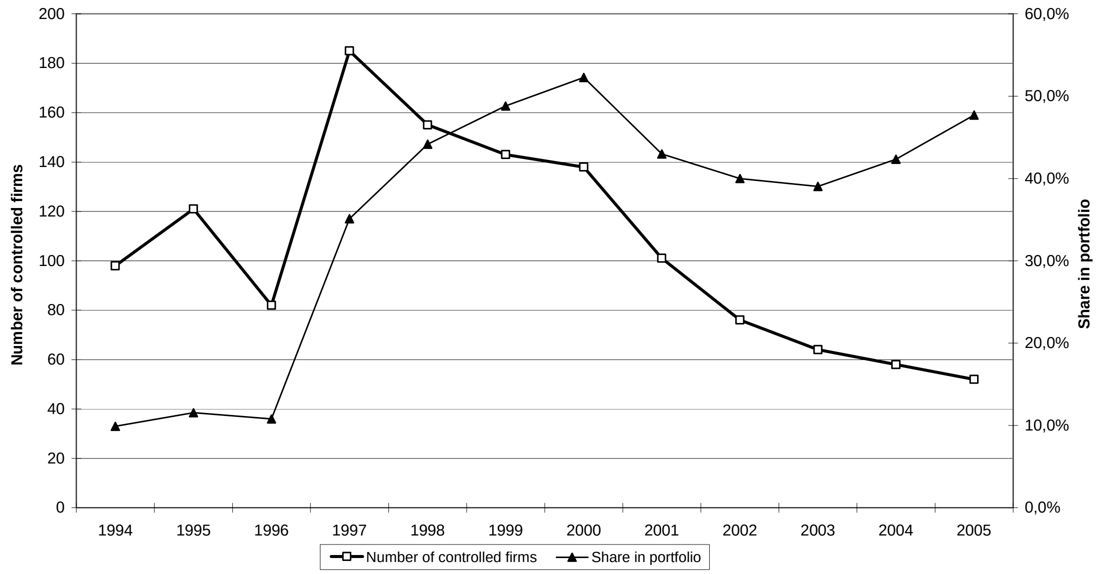

Figure 2
Combined control potential:
Absolute and relative values of total assets of firms in the NPF portfolio (in billions of CZK)

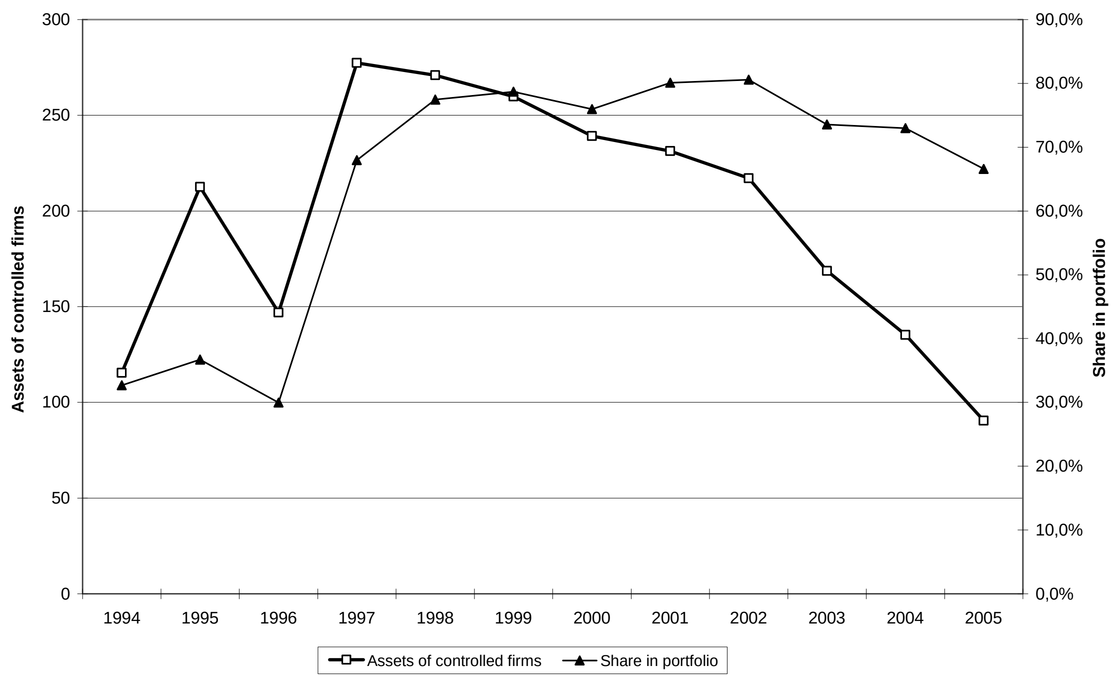

Figure 3
Ratio of assets of firms controlled by NPF (majority and golden share) to assets of joint-stock companies in the Czech Republic

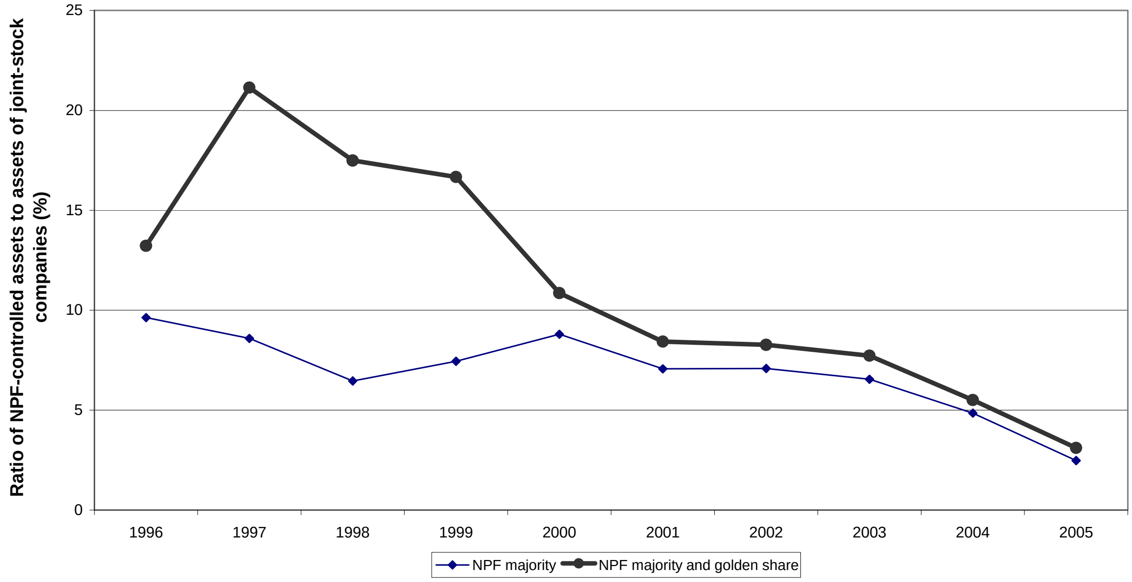

Figure 4
Private sector share on GDP (in percent)

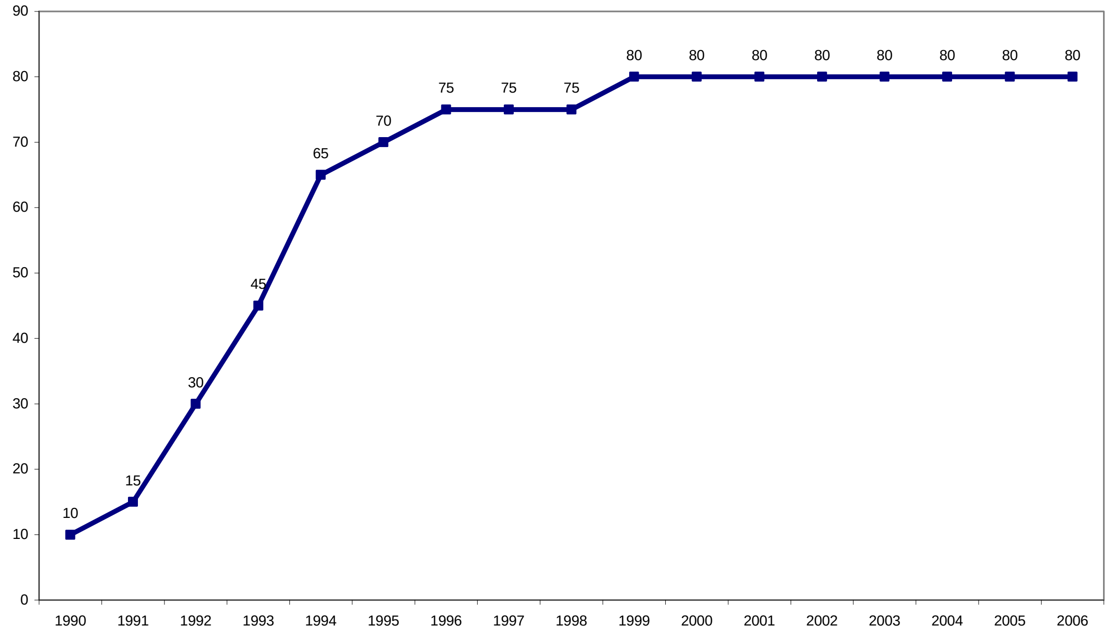

Figure 5
Private sector share on gross value added (in percent)