



Munich Personal RePEc Archive

# **Disinvestment, lending relationships and executive compensation: Evidence from the Indian experience**

Ghosh, Saibal

Reserve Bank of India

2010

Online at <https://mpra.ub.uni-muenchen.de/32071/>  
MPRA Paper No. 32071, posted 07 Jul 2011 12:52 UTC

# Disinvestment, lending relationships and executive compensation: Evidence from the Indian experience

Saibal Ghosh

**Abstract:** The analysis employs data on federal Government-owned public enterprises (PSEs) since the 1980s that encompasses the partial privatization program to examine the likelihood of privatization. The results indicate that employment-intensive, high-paying but less profitable firms are more likely to be privatized. In terms of lending relationships, the analysis indicates that private banks are the main bank for small firms and foreign banks are the main bank for large, established firms. State-owned banks are more likely to be associated with leveraged PSEs as compared to other bank groups. In terms of compensation policies in PSEs, the evidence testifies that bigger, established and leveraged PSE firms pay higher salaries.

*JEL classification:* L33, G21, G35, J33

*Key words:* Partial privatization; public enterprises; relationship lending; executive compensation; India

## 1. Introduction

Economic theory recommends privatization as a tool to improve the efficiency of state-owned enterprises (SOEs) and provide incentives to restructure them (Kay and Thompson, 1986), but the designers of privatization could have different objectives. Policy makers may be concerned about the employment levels in the firm as opposed to efficiency, especially if they share the belief that privatization could engender layoffs. To create and retain support, it is often likely that incumbents may choose to keep excess employment in firms in which subsequent restructuring could result in job losses.<sup>2</sup>

In this paper, we empirically examine the relationship between firm characteristics and its likely effects on privatization. With the help of comprehensive firm-level data on fully government-owned (FGO) and partially government-owned (PGO) firms, we examine these issues in detail, using India as a case study.

The choice of India rests on three major considerations. First, India is one of the largest and fastest growing emerging economies with a rich history of public sector undertakings (PSEs). The rationale for establishing these enterprises was to ensure easier availability of vital articles of mass consumption and arrest price escalation of important products in a regime of high and fluctuating prices (Government of India, 2004). In addition, the genesis of a large number of enterprises can be traced to the taking over by the Government of poorly-performing public sector units with a view to protecting, *inter alia*, the interests of workers. Second, over the last decade-and-a-half, India has introduced an extensive set of reforms in the industrial sector. A central plank of this process has been the privatization of PSE with the aim of broad-basing the equity base, improving productivity and profitability and raising resources for the PSEs with a view to enhancing budgetary receipts (Ahluwalia, 2002; Sarma, 2004). And finally, the firm-level database employed for the purpose provides an ideal vehicle to clearly discern the

---

The views expressed and the approach pursued in the paper are entirely personal.

<sup>2</sup> We employ the terms state-owned enterprises (SOEs) and public sector undertakings/ enterprises (PSU/Es) interchangeably.

interlinkage between privatization and firm characteristics. The findings so obtained may be representative of the association among these important variables in other emerging markets.

Besides these two major planks, we also examine two associated hypothesis. First, we examine the bank-firm relationships of FGO versus PGO firms, an aspect not previously addressed in the literature. The evidence proffered by Berger *et al.* (2008) appears to suggest that state-owned banks are more likely to be the main bank for state-owned firms. The evidence also suggests that firms with foreign main banks are more likely to exhibit multiple banking relationships, presumably to avoid hold-up problems (Rajan, 1992; Boot, 2000) or alternately, as a response to soft budget constraints (Ongena and Smith, 2000).

Second, we also examine the issue of executive compensation in PGO firms. The findings of Gupta (2005) would appear to indicate that the performance of the PGO firm at the time of CEO turnover exerts a strong impact on the ability of the CEO to move into a higher-paying private sector job. However, the set of governance considerations influence the performance of PGO firms has not been examined hitherto, which the study explores.

The remainder of the paper continues as follows. Section 2 provides an overview of the literature with emphasis on emerging economies. The Indian experience with regard to divestment is discussed in Section 3. The data and methods are detailed in Section 4, followed by discussion of the results. The final section concludes.

## **2. Overview of literature**

In essence, the privatization process comprises of a set of policies to scale down the role of the state, assign a larger role to the private sector and pursue the logic of the market in economic decision-making (Goyal, 1998). Following from the privatization experience of British public enterprises in the early 1980s, the wave of privatization spread quickly with several European economies embracing this method.

Consistent with the wave of privatization, researchers have sought to explore the pros and cons of the process. The empirical literature that followed can be broadly categorized under three heads: case studies, cross-sectional analysis and time series evidence of pre- and post-privatization performance.

In the first set of studies, the performance of the firm is compared with its own before privatization, or with other firms that were not privatized, or with firms already in the private sector. Bishop and Kay (1989) compared the performance of a number of divested enterprises in the shipping, airline, gas, telecommunications, oil and automobile industries with that of undivested enterprises in the coal, rail, steel and postal sectors in the UK, using various performance indicators. Their analysis uncovered improvement in enterprise performance in both sets of firms. Subsequently, Galal *et al.* (1994) examined 12 privatized firms across four countries with a view to capturing the net change in welfare, defined as the sum of the changes in welfare of consumers, enterprise profits, welfare of labor and welfare of competitors. Their analysis supports the fact that divestment led to net improvements in welfare for all privatized firms.

The second set of studies involved cross-sectional comparisons of public and private enterprises. Using *Fortune 500* database, Boardman and Vining (1989) compared profitability and productivity measures for over 450 companies in the private, state-owned and mixed enterprises sector for 1983. After controlling for differences in

sectors and countries, the study found that the performance of the private sector was superior. Thereafter, Dewenter and Malatesta (2001) expanded on Boardman-Vining study by covering 1139 firm-years from *Fortune 500*, including 147 state-owned firms covering a 20 year period. The findings indicated that private firm exhibited significantly higher profitability compared with state-owned firms.

The third set of studies attempt detailed statistical analysis of pre- and post-privatization performance, either for a given country or from a cross-country perspective. In one of the earliest studies, Megginson *et al.* (1994) compared the pre- and post- privatization financial and operating performance of 61 companies from 18 countries and 32 industries during 1961-90. Their analysis offers evidence that profitability, efficiency, capital spending, employment and real sales witnessed perceptible improvement, post-privatization. The study, however, did not control for changes in the economic environment, which, in itself, could lead to improved performance in the post-divestiture period. Additionally, there was also the problem of 'selection bias' towards larger firms and healthier PSEs.

We build on previous evidence for India by studying cohesive samples over longer time periods, allowing additional factors that influence performance. Accordingly, our sample covers the period 1987-2006. We also augment the Indian evidence by examining the effect of privatization on not only profitability, but also labor intensity. This assumes relevance in view of the fact unlike in Eastern Europe where privatization was politically attractive because it was part of a structural change that was generally supported, in India, privatization received limited public support since it was perceived that the interests of workers could be compromised, resulting in significant retrenchment and subsequent scaling down of wages.

Though our primarily focus is efficiency and employment aspects, we address several other issues as well. By way of example, we examine the impact of privatization on real wages. Observers have contended that the inability to lower employment post privatization often comes at the cost of lower real wages, which we analyze in our empirical analysis. Finally, as mentioned earlier, we examine the governance and relationship lending aspects of partially privatized versus non-privatized firms.

### **3. The Indian experience**

The Indian experience with privatization has been extensively documented (Reddy, 1992; Rangarajan, 1997; Goyal, 1998; Ahluwalia, 2002; Kapur and Ramamurti, 2002; Naib, 2004; Makhija, 2006). Accordingly, we restrict our attention to an overview of the process. The privatization program was part of the overall process of economic reforms covering industry, trade, financial sector and agriculture and also involved a program of macro-economic stabilization focused on the federal budget, which commenced in 1991. The process of privatization was viewed as a necessary concomitant of deregulation of industry in order to enable firms in the public sector to compete and survive in the new economic environment. The major element in industrial deregulation has been the *Industrial Policy Statement* of June 1991 which, among other things, gradually reduced the number of sectors of industry reserved for the public sector from 17 to four. Disinvestment, while raising revenues for the

government, was also perceived as necessary in order to subject PSEs to market discipline and to ensure that they raise their standards of performance.

Disinvestment of equity in 48 PSEs (including 14 service sector enterprises) has raised about ₹ 477 billion (USD 10.6 billion), roughly half of the budgeted receipts of ₹ 966 billion (USD 21.5 billion) over the period 1991-92 to 2004-06.<sup>3</sup> Such divestment involved 40 PSEs over 1992-2000 and entailed roughly ₹ 186 billion (USD 4.1 billion), whereas the next five years involved 8 PSEs; the amount garnered from privatization was of the order of ₹ 291 billion (USD 6.5 billion).

After the initial round of disinvestment, the process was guided by recommendations made by a Committee on Disinvestment established in 1993. Later, the government constituted the Disinvestment Commission in 1996 (subsequently reconstituted in 2001) to draw up a comprehensive program of disinvestment over the medium-term for PSEs referred to the Commission (Government of India, 1998). The Commission broadly distinguished between a 'core' and 'non-core' group of industries. The former group involved industries such as telecommunications, power and petroleum that are capital-intensive and where the market structure could be an oligopoly. In the 'non-core' category, the Commission advocated sale of up to 74% of government equity.

In 1999, the Government classified PSEs into 'strategic' and 'non-strategic' areas for purposes of divestment. Apart from the strategic (comprising arms and ammunition, atomic energy and railway transport), all other PSEs were to be considered non-strategic. Over the period beginning 2001 till 2006, there were some significant divestments, with majority government equity being divested to strategic partners (Naib, 2004).

The issue of disinvestment has received a fillip during the last few years with the government announcing its intention to divest stake in PSEs and encouraging wider participation of the public in the disinvestment process as part of its budget announcements. Whether privatized firms exhibit single or multiple banking relationships and how are CEO in partially privatized firms compensated are issues which have not been previously addressed.

#### **4. The database**

The analysis relies on three major data sources. The primary database is the *Public Enterprise Survey* (hereafter, *Survey*), Government of India. The *Survey* covers Federal PSEs established by the Government under the Companies Act or as statutory corporations under specific statutes of Parliament in which the Federal Government holding in paid-up share capital is not less than 51%. This excludes banks and financial institutions. The basic data for the *Survey* is compiled from the annual reports and accounts furnished by individual PSEs to the Government.<sup>4</sup>

Given our focus on manufacturing entities, we base our analysis on manufacturing companies. As at end-March 2006, there were a total of 229 PSEs, of which 147 were manufacturing sector companies. These

---

<sup>3</sup> USD 1≈ ₹ 45.

<sup>4</sup> We focus on federally-owned SOEs. Owing to paucity of consistent time-series data on state-owned SOEs, they have not been included in the analysis.

manufacturing companies accounted for, on average three-fourths of total turnover and nearly 70% of the total assets of Federal PSEs.

We initially started off with all the 147 entities, but subsequently delete several firms from the sample. First, we delete enterprises with missing information on key financial variables, lowering the sample to 112 firms. Next, we delete firms which witnessed transfer of majority equity to strategic partners, since subsequent to this process, data on such entities are not included in the *Survey*. And finally, we exclude 9 firms with less than ten years of data on the concerned variables. These exclusions reduce the final sample to 100 firms. These firms comprise, on average, about 70% of total asset and over 80% of the total turnover of these Federal PSEs. Table 1 provides the sample description. We base our analysis on this data and collate information on the relevant variables of interest to our study using this database.

To examine the issue of bank firm relationships, we utilize cross-section data for the year 2006, the final year of the sample. The information on this variable is extracted from the *Prowess* database (Release 2.5), generated and maintained by Centre for Monitoring of Indian Economy (CMIE), a leading private think-tank in India (See, for instance, Berger *et al.*, 2008; Ghosh, 2009 for information on the database). Besides financial information, the database also includes information on the ownership type of the firm as well as the names of the bank(s) with which the firm maintains relationships, listed in order of priority (main bank, second bank etc.).

**Table 1. Sample description**

<b>Industry</b>	<b>Total firms</b>	<b>Partially privatized firms</b>
Agro-based products	3	0
Chemicals & pharmaceuticals	6	1
Coal & Lignite	1	1
Construction	3	0
Consumer goods	13	1
Fertilizers	7	3
Heavy Engineering	4	1
Medium & Light Engineering	24	5
Minerals & Metals	5	5
Petroleum	9	5
Power	3	3
Steel	7	1
Textiles	10	0
Transportation equipment	5	1
<b>Total</b>	<b>100</b>	<b>27</b>

Using this database, we are able to extract information on the number of banking relationships for 88 (out of the 100) firms in our database. This information is supplemented by the ownership type of the main bank as well as its basic characteristics (size, capital adequacy ratio, non-performing loan ratio, etc.) In addition, we also include the firm location.

Table 2 provides information on bank-firm relationship, classified by privatization status and number of relationships, respectively. The results display a clear tendency for PGO firms to be exhibiting a greater number of banking relationships as compared to FGO ones. These differences appear to be economically important, as well. For example, the average number of banking relationships for PGO firms is close to 8, roughly double the number

for FGO firms. The data also reveals that all firms maintain multiple banking relationships, suggesting that public firms prefer to be generally associated with multiple banks. This is consistent with the survey results reported by Ongena and Smith (2000) for European economies, which suggests that multiple banking relationships is typically the norm rather than an exception.

**Table 2: Banking Relationships: By privatization, number and ownership**

	N.Obs	Mean	Std. dev.
<b>Panel A: Status of firms by privatization</b>	<b>88</b>	<b>4.84</b>	<b>3.88</b>
PGO firms	18	7.61	5.94
FGO firms	70	4.13	2.79
t-test : PGO vs. FGO firms	88	2.419**	
<b>Panel B: Status of firms by number of banking relationships</b>	Number	Percent to total	
Equal to 2	34	38	
3-5	26	30	
Greater than 5	28	32	
<b>Panel C: Status of partially privatized firms by main bank ownership</b>	SOB	Foreign	Private
PGO firms	15	2	1

\*\* denotes statistical significance at 5%

Finally, we examine the governance issues in our sample companies. Based on the PSE database as available on the Mumbai Stock Exchange (BSE) website, we are able to obtain data on 18 listed companies for the year 2006.<sup>5</sup> Besides firm ownership and financials, the information available pertains to the salary of the CEO, the age, qualification, representation in other companies as well as board size.

## 5. Empirical strategy and results

### 5.1 Selection of firms into privatization

Table 3 reports comparisons of employment, wages and profitability for the sample firms. The results show a clear tendency for FGO firms to be much smaller as compared to PGO ones. These differences appear to be economically important, as well. For example, the average (log) employment for PGO firms is 3.88, which far exceeds the value obtaining for FGO firms. The difference is statistically significant at the 0.01 level. Return on asset displays the greatest difference in profitability. This difference is also statistically significant at conventional levels.

**Table 3. Univariate tests: PGO vs. FGO firms**

Variable	PGO firms		FGO firms		t-stat for difference
	Mean (SD)	Obs (N.firms)	Mean (SD)	Obs (N.firms)	
RoA	0.044 (0.145)	479 (25)	-0.331 (1.457)	1348 (75)	9.314***
Employment	3.884 (0.670)	481 (25)	3.336 (0.676)	1302 (71)	15.289***
Wage	1.743 (4.024)	477 (25)	1.549 (0.098)	1292 (71)	-2.446***

\*\*\*, \*\* and \* indicates significance at the 1, 5 and 10% level, respectively

The results on wages are also equally striking. The average monthly wage in PGO firms was roughly 13 percent higher as compared to FGO firms. These mean differences were significant at the 0.01 level. The

<sup>5</sup> The Mumbai Stock Exchange PSE database, launched in January 2010, provides a single updated platform with all information relating to disinvestments or public offerings. In addition, the database provides comprehensive information on their board of directors, shareholding pattern and other relevant corporate information.

comparison of means across the two types of firms suggests that large, profitable and high-paying firms were typical candidates for privatization.

These univariate tests do not control for factors that might systematically impact firm performance. For one, we do not account for firm-specific controls. Second, and following from our earlier discussion, we do not take on board as to whether the firm is in the monopoly sector or otherwise. The pace of economic activity and the stance of monetary policy, could also be important considerations.

We control for these factors in a multivariate regression framework. The dependent variable equals one throughout the entire period for firms that were privatized at some point during the sample period and zero, otherwise. The independent variable list includes the key variables of the model: employment, performance and wages, as well as the set of industry-level controls, as mentioned earlier. We include dummy to control as to whether the industry in which the firm operates was reserved for public sector till 1991 (*D\_Reserved*). Finally, we include a dummy for real GDP growth (*D\_GDP*) to control for business cycle effects and for real interest rates (*D\_RiR*) to control for the stance of monetary policy. The regression specification for firm *s* at time *t* is specified according as:

$$[\text{Priv}(=1)]_{s,t} = \alpha_0 + \alpha_1 \text{Profit}_{s,t} + \alpha_2 \text{Employment}_{s,t} + \alpha_3 \text{Wages} + \alpha_4 [\text{firm-level controls}]_{s,t} + \alpha_5 \text{Macro}_t + \alpha_6 \text{Dummies}_t + \xi_{s,t} \quad (1)$$

where *Profit*, *Employment* and *Wages* are firm-level profitability, employment and wages, respectively; the other variables are as mentioned earlier.  $\xi$  denotes the error term.

The regression results, presented in Table 4, confirm the univariate findings. The results suggest that employment-intensive firms are more likely to be privatized, *ceteris paribus*. On the other hand, efficiency – measured by RoS and RoE – has a negative effect on the chance to be selected into the privatizable group. Higher wages have a positive effect and significant coefficient on the likelihood of privatization.

**Table 4. Selection of firms into privatization**

	(1)	(3)	(4)
Constant	-7.084 (1.916)***	-7.341 (1.888)***	-8.895 (2.241)***
Employment	1.359 (0.327)***	1.391 (0.332)***	1.596 (0.396)***
RoA	-0.026 (0.109)		-0.109 (0.112)
Asset/Sales		0.002 (0.0008)***	
Wage	0.001 (0.0008)*	0.002 (0.0008)**	0.002 (0.0009)***
<i>Controls</i>	YES	YES	YES
<i>D_Reserved</i>	-0.768 (0.601)	-0.803 (0.600)	-1.039 (0.626)*
<i>D_GDP</i>	-0.032 (0.044)	-0.050 (0.041)	-0.072 (0.042)*
<i>D_RiR</i>	0.098 (0.039)***	0.107 (0.040)***	0.113 (0.036)***
<i>D_Industry</i>	YES	YES	YES
<i>D_Ministry</i>	YES	YES	YES
Period, firms	1987-2006, 100	1987-2005, 100	1987-2005, 100
Prob> Chi-squared	0.000	0.000	0.000
Pseudo R-squared	0.4458	0.4524	0.4623
Observations	1280	1280	1298

Standard errors (clustered by firm) are within brackets

\*\*\*, \*\* and \* indicate statistical significance at 1, 5 and 10% level, respectively



Among the control variables, bigger firms are more likely to be privatized (the coefficient on log sales and log asset is positive and significant in all specifications), although firm leverage and age do not appear to have any impact on the privatization process. This is not surprising, since public firms have an implicit government guarantee (Gupta, 2005) and are already well-established. All of the regressions reported in Table 4 include the business cycle control ( $D\_GDP$ ) and monetary policy stance ( $D\_RiR$ ) variables among the regressors. In most of these regressions, the coefficients on interest rate is statistically significant, hinting at the possibility that the likelihood of privatization is higher in an inflationary environment. The impact of dereservation, as measured by  $D\_Reserved$  indicates that firms that were erstwhile reserved for public sector had less chances of being privatized.

## 5.2 Lending relationships

The earlier analysis highlights the point that bigger, profitable firms with high wages are most likely to be selected for privatization. It does not, however, examine the issue of lending relationships for these sample firms. To examine this aspect, we utilize the following specification:

$$\text{Main bank ownership type} = f_1(\text{firm characteristics, other characteristics, region/ industry dummies}) \quad (2a)$$

The dependent variable (i.e., main bank ownership) is a dummy which equals one if the main bank is of a given ownership type, else zero. Among firm characteristics, we include various firm-level controls and financial performance. The estimations also include controls for the region in which the firm is located and industry type for the firm. We estimate (2a) by Probit to ascertain the likelihood that the main bank belongs to the state-owned bank (SOB), private and foreign group, each estimated relative to the other categories combined.

Subsequently, we investigate the determinants of multiple banking relationships. Accordingly, we employ ordered logit regression to examine the likelihood that a firm exhibits multiple banking relationships as opposed to single banking relationship. To ensure robustness, we also estimate the model by Poisson regression to ascertain the factors influencing the *number* of bank-firm relationships. We assume that multiple banking relationships is a function of firm characteristics, other characteristics and main bank characteristics as given by (2b):

$$\text{Multiple bank relationships (dummy or number)} = f_2(\text{firm characteristics, other characteristics, main bank characteristics, Region/industry dummies}) \quad (2b)$$

Table 5 shows the results for the determinants of main bank ownership type. The results indicate that for private banks, the coefficient on  $\ln$  asset is negative and statistically significant, while it is positive (and statistically significant) for foreign banks. This suggest that private banks are the main bank for small firms, whereas foreign banks are typically associated with large, established (positive coefficient on  $\ln$  age) firms.

**Table 5: Determinants of Main Bank Ownership**

	SOB	Private	Foreign
<i>Firm characteristics</i>			
Ln asset	0.062 (0.236)	-0.356 (0.149)***	1.014 (0.388)***
Ln age	-0.051 (0.459)	-0.262 (0.219)	1.547 (0.965)*
PGO	1.280 (0.609)**	...	...
<i>Firm performance</i>			
RoA	0.193 (0.984)	0.171 (0.583)	-0.021 (1.869)
Leverage	0.934 (0.540)*	-0.306 (0.369)	-3.179 (0.930)***
Tangible	1.258 (0.729)*	-1.847 (0.806)**	0.275 (0.924)
Constant	0.744 (2.686)	1.542 (1.275)	-1.672 (0.557)**
<i>Diagnostics</i>			
No. of observations	71	71	71
Pseudo R-squared	0.1825	0.1057	0.1695

Region and industry dummies are included in all specifications

Robust standard errors within brackets

\*\*\*, \*\*and \* indicate statistical significance at 1, 5 and 10% level, respectively

Regarding the differences between SOB and other bank groups, the estimates suggest that SOBs are more likely to serve as the main banks for highly leveraged PSUs with high asset tangibility. On the other hand, foreign banks prefer to be associated with less leveraged public firms.

### 5.3 Executive compensation

The final aspect we consider is the issue of CEO compensation in partially privatized PSEs. Based on available data, we are able to extract information on 18 PGO firms for the year 2006. To examine this issue, we run cross-section regression for firm  $s$  of the following form:

$$C = \alpha_0 + \alpha_1 \text{Firm characteristics} + \alpha_2 \text{Performance} + \alpha_3 \text{CEO characteristics} + \alpha_4 \text{Board characteristics} + \xi_t \quad (3)$$

where  $C$  denotes (inflation-adjusted) executive compensation; the other variables are those capturing firm-level features, such as size, age, profitability as also CEO and board characteristics. The results of the regression analysis are displayed in Table 7.

We first examine whether firm characteristics matters for CEO pay. The OLS regressions, reported in Table 7, indicate that bigger and established PSU firms pay higher salaries. In terms of magnitudes, a 10 percentage point rise in firm size raises CEO pay by roughly 1 percent. In terms of age, the magnitudes are much higher.

Next, we explore the impact of firm performance. The results indicate that leveraged firms pay higher salaries to CEOs. Without loss of generality, leveraged firms can be assumed to have complex interlocking of relationships spanning across multiple banks; they are also likely to be more complicated in terms of business profile. CEO in such firms are therefore, likely to be relatively better-paid as compared to others. Finally, we examine the impact of board features on CEO pay. The evidence indicates that CEO pay is higher for PSEs with bigger boards.

**Table 6. CEO compensation in partially privatized firms**

	(1)	(5)
<i>Firm characteristics</i>		
Size	0.091 (0.016)***	0.032 (0.051)
Age	0.226 (0.065)***	0.298 (0.157)*
<i>Firm performance</i>		
RoA		
Tobin's q		-0.402 (0.368)
Leverage		0.369 (0.151)**
Tangible		0.032 (0.131)
<i>CEO characteristics</i>		
Qualification		-0.036 (0.079)
<i>Board characteristics</i>		
Board size		0.027 (0.014)*
Constant	4.375 (0.247)***	4.175 (0.673)***
<i>Diagnostics</i>		
N. Observations	18	15
Adjusted R-squared	0.3869	0.6776

Robust standard errors within brackets

\*\*\*, \*\* and \* indicates significance at the 1, 5 and 10% level, respectively

## 6. Summary and conclusions

The partial privatization program in India, undertaken as part of the overall process of reforms, since the early 1990s, was aimed at improving the performance of government-owned firms. While there have been several studies on firm performance, most studies of this genre have primarily focused on the efficiency *versus* ownership debate, with limited attention being paid to the impact of partial privatization on performance. With the federal government retaining management control even after privatization, the implication of such partial privatization on performance is not evident *a priori*.

In this context, the findings appears to suggest that it is more likely that employment-intensive and high-paying firms will be privatized. Profitable firms, on the other hand, are less likely to be privatized. This result is quite robust. It is apparent in simple univariate comparisons as well as in multivariate regressions that control for size and other ratios as well as the business cycle and monetary policy stance.

Subsequently, we examine banking relationships in partially privatized firms. The analysis indicates that sample firms typically maintain multiple banking relationships. More importantly, the evidence suggests that private banks are the main bank for small firms and foreign banks are the main bank for large, established firms. State-owned banks are more likely to be associated with leveraged PSUs as compared to other bank groups.

Finally, we explore the issue of executive compensation in partially privatized PSUs. The evidence testifies that bigger, established and leveraged PSU firms pay higher salaries. In terms of governance features, the evidence indicates that CEO pay is higher for PSUs with bigger boards.

## References

- Ahluwalia, M.S. (2002). Privatization: from policy formulation to implementation – the view from the inside. Fifth Annual Fellow Lecture, Center for Advanced Study of India, University of Pennsylvania: USA.
- Berger, A., L. Klapper, M.S. Martinez Peria and R. Zaidi, R. (2008). Bank ownership type and banking relationships. *Journal of Financial Intermediation* 17, 37-62.
- Bishop, M. R. and J. A. Kay (1989). Privatization in the United Kingdom: lessons from experience. *World Development* 17, 643-57.
- Boardman, A. and A. Vining (1989). Ownership and performance in competitive environments: A comparison of the performance of private mixed and state-owned enterprises. *Journal of Law and Economics* 32, 1-33.
- Dewenter, K.L. and P. H. Malatesta (2001). State-owned and privately-owned firms: An empirical analysis of profitability, leverage and labor intensity. *American Economic Review* 91, 320-34.
- Galal, A., L. Jones, P. Tandon, P. and I. Vogelsang (1994). *Welfare consequences of selling public enterprises*. Oxford University Press: New York.
- Government of India. *Public Enterprise Survey* (various years). Government of India: New Delhi.
- Goyal, S.K., 1998. Privatization in India. In *Privatization in South Asia: Minimizing the negative social effects through restructuring*. Report on the sub-regional meeting on privatization in South Asia, Chapter 3. Bangkok: ILO.
- Guiso, L. ,and R. Minetti (2004). Multiple creditors and information rights: Theory and evidence for US firms. CEPR Discussion Paper 4278.
- Kapur, D. and R. Ramamurti (2002). Privatization in India: the imperatives and consequences of gradualism. CREPR Working Paper 142, Stanford University: USA.
- Kay, J., and D. Thompson (1986). Privatization: A policy in search of a rationale. *Economic Journal* 96, 18-32.
- Makhija, A.K. (2006). Privatisation in India. *Economic and Political Weekly* (H T Parekh Finance Forum) 41, 1947-51.
- Meggison, W.L. (2005). The economics of bank privatization. *Journal of Banking and Finance* 29, 1931-80.
- Naib, S., (2004). *Divestment in India: Policies, Procedures and Practices*. Sage Publications: New Delhi.
- Ongena, S and D.Smith (2000). What determines the number of bank relationships? cross-country evidence. *Journal of Financial Intermediation*, 9, 26-56.
- Rangarajan, C. (1997). Disinvestment strategies and issues. RBI Bulletin (February), RBI: Mumbai.
- Reddy, Y.V. (1992). *Public enterprise reform and privatization*. Himalaya Publishing House: New Delhi.
- Sarma, E A S., (2004). Disinvestment: what FMs have said since 1991? *Economic and Political Weekly* 34 (May), 239-43.
- Thakor, A. (1996). Capital requirements, monetary policy and aggregate bank lending: [Theory and empirical evidence](#). *Journal of Finance* 51, 279-324