GOVERNANCE AND PERFORMANCE OF SPANISH PRIVATISED FIRMS

ABSTRACT

This paper analyses the effect of the Spanish privatisation process on the performance and corporate governance of the firms that were privatised through public offerings over the 1985-2003 period. Using conventional pre- versus post-privatisation comparisons, we do not find significant improvements in privatised firms' profitability and efficiency. However, our results do suggest a change in firms' ownership structure and in the characteristics of Boards of Directors after privatisation. Firms' ownership concentration decreases as a consequence of the relinquishment of control by the State and the Boards of Directors are restructured with the creation of new specialised committees and the incorporation of more executives.

Key words: privatisation, public offerings, performance, corporate governance

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1. Introduction

Privatisation, which began in 1979 in the United Kingdom and spread to European and developing countries in South America, Asia and Africa alike, has become a major economic phenomenon in recent decades. Spain has certainly not been an exception to the general trend, with 134 firms being privatised between 1985 and 2005. Spain's process of economic restructuring has been founded upon liberalisation and deregulation in the financial sector and key product markets. Public sector restructuring and the privatisation of State-Owned Enterprises (SOEs) have been a major part of this reform.

The economic theory of privatisation is a subset of a broader literature on the economics of ownership and the role of State ownership (or regulation) of productive resources (Megginson and Netter, 2001). The inferior performance of SOEs may be due to the fact that State officialdom tends to impose goals other than value maximization on their management (Shleifer and Vishny, 1994). Alternatively, poor performance may be put down to the different levels of entrepreneurship linked to different types of ownership. Owner's willingness to accept risk, to innovate or to acquire the skills that enable objectives to be achieved may be linked to firms' corporate governance structure. As Shleifer and Vishny (1997) argue, corporate governance may explain the success or failure of a privatisation program.

Some authors have also tried to explore the link between the corporate governance structure of privatised firms and their post-privatisation performance. Boubkari and Cosset (1998) and Boubkari *et al.* (2005) suggest a link between changes in privatised firms' ownership structure and their performance, whilst Frydman *et al.* (1999) and

Earle and Teledge (2002) find that divested firms controlled by outside owners outperform those owned by insiders. Qi *et al.* (2000) report higher post-privatisation performance for privatised firms which the State has relinquished control of when they are dominated by institutional investors.

Our study aims to add to the literature by analysing the influence of privatisation processes on privatised firms' corporate governance characteristics and performance. First, we compare pre- versus post-performance of privatised firms. Then we study how firms' corporate governance characteristics change as a consequence of privatisation and whether their new corporate governance structures aim to resemble that of their industry peers, an issue that has not been extensively analysed by the empirical literature.

The results of the study do not support post-privatisation improvements in firms' profitability and efficiency once industry effects are considered, but we do find a significant change in firms' ownership structure after privatisation. Privatised firms exhibit a significant increase in free float, a decrease in stakes held by large shareholders, including the State, and an increase in shareholdings owned by financial entities. We also find that Boards of Directors experience significant changes. After privatisation, Boards set up more committees and their composition changes, as the number of executive directors increases.

The rest of the paper is organized as follows: section 2 deals with the reasons that may explain changes in firms' performance after privatisation and with the factors that may influence changes in ownership structures and corporate governance characteristics of privatised firms. Section 3 describes the sample selection, methodology and variables

used in the study. Results are discussed in section 4, and section 5 presents the paper's main conclusions.

2. Theoretical predictions and testable hypotheses

A firm's ownership structure influences its corporate decisions. The economic theory of privatisation champions the advantages of private ownership of the means of production and points to the inefficiency of State ownership and to the problems of SOEs when defining their goals. Governments may, in fact, set many objectives for their SOEs that differ from profit or shareholder-wealth maximization (Megginson and Netter, 2001). They may, for example, pursue political goals that could reduce firms' efficiency. Moreover, even if the State pursues SOEs profit maximization, public firms will tend to be more risk adverse and have less leeway to adopt decisions because their managers will need to justify their strategic decisions to their employees or the State (Frydman *et al.*, 2000). Agency problems may also be more acute in public firms because of the dual level of agency relations (citizens-government and government-management), the impracticability of citizens selling firms' shares, SOEs reliance on the State for funding and the unlikelihood of SOEs facing bankruptcy.

In view of these characteristics, and given the monitoring exercised by capital, corporate control and product and service markets, change from public to private ownership ought to spark increases in firms' profitability and efficiency (Yarrow, 1986; Boycko *et al.*, 1993). Empirical studies that report an increase in the return on assets and return over sales of privatised firms support this prediction (Megginson *et al.*, 1994; Boubakri *et al.*, 2005)[i]. Thus, we propose the following as our first testable hypothesis:

H1: A firm's operating profitability increases after privatisation.

Market pressures and the reduction or loss of State subsidies will drive privatised firms to employ their human, financial and technological resources more efficiently (Suneti *et al*., 1992; Boycko *et al*., 1993). This expected increase in firms' efficiency is supported by empirical evidence (Vining and Boardman, 1992; D´Souza *et al*., 2005) and is one of the reasons most frequently cited by States as a justification of privatisation processes[ii]. Consequently, we would expect that:

H2: A firms' efficiency increases after privatisation.

Privatisation promotes changes in firms' corporate governance structures. Firms privatised through public offerings, firstly, are expected to show a higher degree of free-float, as the State relinquishes its ownership. Nevertheless, although La Porta *et al.* (1998) report that ownership in the hands of the three largest shareholders diminishes from 46 percent to 10 percent after privatisations, Boubakri *et al.* (2004) find an increase in privatised firms' ownership concentration.

Governments frequently claim that their privatisations are aimed at creating 'popular capitalism', although at the same time, some States are reluctant to relinquish 'national' control of privatised firms and try to create a hard core of stable shareholders or issue 'golden shares', thereby retaining control of former SOEs. The results of Boubakri *et al*. (2004), which point out that the reduction in shareholdings formerly held by the States is offset after privatisation by an increase in ownership by local institutions and individuals, support this claim. Boutchkova and Megginson (2000) also report an increase in market trades and in stock market capitalization and liquidity following privatisation, as well as concluding that the extremely large numbers of shareholders created by share issue privatisations is unstable over time. A further hallmark of

privatisation through public offerings is the sale of part of the SOEs to managers and employees. By doing this, governments overcome both the resistance of internals to change in ownership and the latter's fear of job losses. Given these arguments, we propose the following hypothesis:

> H3: A firm's ownership structure changes significantly after its privatisation: firms' free float and the stakes held by financial firms and managers increase.

Demsetz and Lehn (1985) suggest that a firm's ownership depends on different factors, i.e., firm size, firm risk, firm leverage, and the firm's industry regulations. Given such ownership determinants, post-privatisation ownership would not be expected to differ significantly from the ownership structure of firms of similar size operating in the same environment. Indeed, the only difference might lie in the absence in privatised firms of family groups as large blockholders. On the other hand, a privatised firm's ownership structure might be expected to have certain distinguishing characteristics as a consequence of privatisation. The State's aim of creating 'popular capitalism' and its desire to overcome internal resistance to privatisation would explain why privatised firms have a larger level of free-float and higher ownership by internals in comparison to their private counterparts. In the light of these latter arguments, we propose the following hypothesis[iii]:

> H4: Privatised firms will exhibit greater free float and internals ownership compared to their industry peers.

A firm's internal corporate governance mechanisms, e.g. the Board of Directors, would also be expected to alter as a consequence of post-privatisation ownership structure changes. Board characteristics that may influence its monitoring capacity include its

size (Jensen, 1983; Xie *et al*., 2003), its composition (Weisbach, 1988; Dahya *et al*., 2002), CEO duality (Brickley *et al.,* 1997; Shivdasani and Yermack, 1999) and whether there are Board committees (Kose and Lemma, 1998; Klein, 2002a and b). Most Codes of Best Practice also include the issuance of a Rule for the Board of Directors and of an Internal Code of Conduct as recommendations. In view of this, we propose the following hypothesis:

> H5: A firm will restructure its corporate governance structure following privatisation. It will try to adopt 'best corporate governance practices' by reducing Board size, by restructuring its composition, by creating Board committees, by separating the posts of CEO and Chairman and by issuing a Rule for the Board of Directors and an Internal Code of Conduct.

A firm's ownership structure and the characteristics of its Board of Directors are strongly correlated and depend on different firm's characteristics, such as size, variance of stock returns, leverage and the firm's investment opportunity, among other factors (Denis and Sarin, 1999). Thus, the characteristics of privatised firms' Boards might be expected to resemble those of their industry peers of similar characteristics. On the other hand, privatised firms' corporate governance characteristics may also be considered to significantly influence the success of privatisation, and privatised firms will presumably be willing to send a signal to the market about their commitment to good corporate governance practises and changes in their behaviour. The majority of Codes of Best Practices recommend reasonably sized boards, with a significant numbers of external directors, specialised committees and the separation of the posts of CEO and president of the Board. The issuance of a Rule for the Board of Directors and of an Internal Code of Best Practices, and the publication of an Annual Corporate Governance Report are other recommendations usually made, and indeed were part of the Olivencia Report, the

Spanish Code of Best Practice issued in 1998. This Report was not mandatory, so until 2004 Spanish companies that issued a Rule of the Board of Directors, an Internal Code of Conduct or an Annual Corporate Governance Report did so voluntarily, presumably to send a signal to the market of their commitment to good corporate governance practices (Fernández and Gomez Ansón, 2005). Assuming that privatised firms will indeed send a signal to the market, we will test the following hypothesis:

> H6: Privatised firms will tend to comply more frequently with good practices than long-standing companies quoted on the stock exchange. Consequently, privatised firms will have smaller Boards, lower percentages of executive directors sitting on their Boards, a larger number of specialised committees, and a higher probability of CEO duality. They will issue Rules for the Board of Directors and Internal Codes of Best Practice more frequently, and they will be more inclined to publish an Annual Corporate Governance Report.

3. Data base, variables and methodology

3.1. Data base

Our initial database included all sixteen Madrid Stock Exchange-listed firms that were privatised through a public offering during the 1985-2003 period. They represent approximately 49 percent of the total market capitalization of firms included in the select Ibex-35 Index (January, 2006), and are mainly involved in strategic industries, such as electricity and gas, telecommunications, airlines, chemicals or steel and iron[iv].

The firms' industry-adjusted operating performance measures were estimated by subtracting their industry means, as reported by the Spanish Central Bank (Banco de España), from their performance measures. Furthermore, we also constructed a control sample of non-privatised, listed companies in order to test the hypotheses relating to

firms' corporate governance. The non-privatised firm from within the same industry that had the closest market capitalization on 31st of December of the year the firms were privatised was paired with each privatised company. Firms that had been taken over or had merged over the three years before the selected date and in the period of time studied were excluded from this control sample. The final sample of privatised firms and their industry peers is shown in Table 1. Given the limited number of firms, this firm- matching adjustment approach could potentially lead to biased results, so we also constructed another control sample using a portfolio of the privatised firms' industry peers as a benchmark. Estimations of post-privatisation ownership structures and Board of Directors characteristics were repeated with this alternative control sample without results varying significantly. For this reason, only the test results for the initial control sample of matched non-privatised firms are provided in this paper.

[Table 1]

Information on the sample of privatised firms was obtained from different data sources: the State Corporation of Industrial Shares (SEPI) and the reports of the Consultative Privatisation Committee (CCP). Accounting information was obtained from firms' Annual Reports and their offerings prospectus. This information was completed with information provided by the Dicodi and the Dun's & Bradstreet directories. In addition, aggregate data for the industries was culled from information provided by the "*Central de Balances*" of the Spanish Central Bank. Corporate governance-related information was assembled from the information provided by the incumbent companies, by offerings prospectus and by the Spanish Supervisory Agency (CNMV), as well as by companies' bylaws, Annual Reports and Annual Corporate Governance Reports (when they existed).

3.2. Variables and methodology

A range of variables relating to firms' profitability and efficiency, to their ownership structure and to the characteristics of their Boards of Directors were defined (see Table 2) to analyse changes in privatised firms' performance and corporate governance structure and to compare the corporate governance structures of firms that were privatised with their matched pairs.

[Table 2]

Following Megginson *et al.* (1994) and Boubakri and Cosset (1998), in order to test hypotheses 1 and 2, we used a matched pair methodology (pre versus post-privatisation) and empirical proxies for the firms' performance, computed for a period of up to seven years, encompassing three years before privatisation until three years after the first and the last stage or block of privatisation (1S and LS, respectively)[v]. These measures were estimated for each firm after adjusting for its industry, i.e., a firm's industry mean for the same year, as reported by the Spanish Central Bank, was subtracted from the value shown by each firm each year. The mean and median values of each variable for each firm over the pre- and post-privatisation windows were then calculated[vi]. The year of privatisation may include both public and private ownership phases of the enterprise and is therefore excluded from calculations for all firms. Having computed pre- and post- privatisation mean and median values, we use Student's t-Test and the Wilcoxon signed-rank to Test for significant changes in the variables.

Two different matched-pair methodologies were employed to test H3 to H6: a) a comparison of pre- versus post-privatisation mean and median values of the corporate governance variables for the sample of privatised firms for a period of up to seven years encompassing three years before through three years after the privatisation (defined both as the first and the last stage of the privatization process, 1S and LS, respectively), and b) comparison of the empirical proxies of corporate governance variables for a

period of up to three years after privatisation (defined both for the first and the last stage of the privatisation process) between the privatised firms and their industry-matched pairs. The significance of possible differences in the computed pre- and post-privatisation values were tested using Student's t-Test, the Wilcoxon signed-rank and the McNemar Test[vii]. The significance of the possible differences between privatised firms and their matched pairs was tested using the Student's t-Test, the U-Mann Whitney Test and the Fisher Test[viii].

4. Results

4.1. Firms' post-privatisation performance

Table 3 describes changes in firms' performance after privatisation, with statistically significant decreases in the sales-to-employee ratio (SALES/EMP) and net profit-to-employee (NP/EMP) for the last stage of privatisation (LS). These changes are in line with the results from other studies that suggest that privatisation may not lead to systematic improvements of allocative efficiency (Pestieau and Tulkens, 1993) or of productive efficiency (Martin and Parker, 1997), and contradict hypotheses 1 and 2, failing to provide backing for a predicted increase in firms' profitability and efficiency after privatisation as reported, for instance, by Megginson *et al.* (1994) and Boubakri *et al.* (2005). Our results are also in line with previous empirical studies in Spain on firms privatised through public offerings. Melle (1999) does not observe any increase in firms' performance after privatisation, except in the sales to employee ratio. Arcas and Ruiz (1999) and Hernández and López de Castro (2000) both report a post-privatisation increase in the operating efficiency of privatised firms, although they do not compare these companies with their competitors. Finally, Arocena (2003) studied the economic

efficiency of the electrical company Endesa after its privatisation, comparing it with its competitors. He reports an inferior performance of the privatised firm.

[Table 3]

These results may also be partially explained by the fact that the sample used includes the 'Crown Jewels' of the Spanish State, i.e., firms that were restructured before privatisation and that were already profitable at the time of their privatisation. For instance, Bosch and Vergés (2002) analysed the privatisation of the iron and steel company Aceralia and concluded that significant changes in the firm's profitability and efficiency had occurred during its restructuring process, before privatisation. In fact, although not shown, we found that most of the firms that showed no significant improvements in performance after privatisation were the firms that had better performance ratios in the pre-privatisation period. Moreover, some of the firms in the sample belong to regulated industries that were liberalised close to the moment of privatisation. Liberalisation and the lost of monopolistic or oligopolistic rents may have had a negative impact on these firms' profitability and efficiency. Añadir lo que nos dice de la reestructuración

4.2. Firms' post-privatisation ownership structure

Table 4 shows the characteristics in terms of ownership structure of privatised firms in the pre-privatisation period versus the post-privatisation period. As expected (H3), the percentage of free-float of privatised firms increases significantly after privatisation, from 13.64% in the pre-privatisation period to 63.93% in the post-privatisation (last stage) period (Table 4, Panel B)[ix]. The percentage of firms with a large shareholder owning more than 50% of a firm's shares actually decreases from 75% to 0% (Table 5, Panel B). Consequently, the percentage of shares held by the five largest shareholders

decreases significantly after privatisation, from a median value of 97.86% in the pre-privatisation period to a median value of 32.63% in the post-privatisation period (Table 4, Panel B). This large decrease in firms' ownership concentration is mainly caused by the decrease in the shares owned by the largest shareholder, the State. While the State held 80% of the firms' shares in the pre-privatisation period, the median value of shares owned by the State decreased to 0.315% after the last stage of privatisation. At the same time, the privatisation processes carried with it a significant increase in the shareholdings owned by incumbent managers.

Privatisation processes seem to have changed firms' ownership structures dramatically, with the State having been replaced as major blockholder by new shareholders, often in the guise of either banks and savings banks, who hold significant stakes in 75% of the privatised firms three years after privatisation (Table 5, Panel B) or non-financial companies, who hold significant stakes in 58.33% of the firms. The ownership structure of these large privatised companies reflects State will to create a stable hard core of shareholders in order to keep the firms' control in Spanish hands. The large Spanish banks and savings banks participated actively in the Spanish privatisation process, expanding the interlocking relationship between financial and industrial groups in Spain. All these results tend to support hypothesis 3.

[Table 4]

[Table 5]

The above changes in firms' ownership structure, which seem to be a consequence of privatisation processes, raises another question: whether firms' new ownership structures resemble those of other quoted public firms, or whether privatised firms exhibit larger levels of free float and managerial or internal ownership, as proposed in hypothesis 4. Table 6 compares the characteristics of the sample of privatised firms with

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the sample of control firms. It shows that privatised firms compared to their matched pairs exhibit no significant differences in term of free-float or in the percentage of ownership held by the largest shareholders. However, they do exhibit a number of other differentiating ownership characteristics: the percentage of stakes held by the State is higher (median value of 0.31% versus 0%, Table 6, Panel B), the percentage of shares held by managers is lower (0.002% versus 0.11%), as also are the stakes held by family groups. Moreover, Board ownership is significantly higher for the sample of control firms. These results do not support hypothesis 4.

[Table 6]

It is also interesting to analyse whether these new ownership structures remain stable over time. Table 7 shows that the percentage of privatised firms for which financial companies hold a significant stake remains constant after the last stage of the privatisation process (75% in years +1 and in year +3, Table 7, Panel B). In addition, the percentage of privatised firms in which non-financial companies hold stakes above 5% also remains constant after privatisation, as does the percentage of free-float (see Figure 1), although the percentage of firms for which a blockholder holds more than 5 percent of the firm's shares decreases over the post-privatisation years (100% in year +1 versus 91.667% in year +3). These numbers seem to suggest that the so-called stable cores of shareholders that were created by the Spanish governments in order to keep control of privatised firms in Spanish hands have indeed been as stable as they were expected to.

[Table 7]

[Figure 1]

4.3. Post-privatisation characteristics of the Boards of Directors

Privatisation also seems to exert a significant influence on certain characteristics of the Board of Directors of incumbent firms, although not always as proposed in hypothesis 5. The number of executive directors increases significantly, from a median value of 1.58 in the pre-privatisation period to 2 in the last stage post-privatisation period. The number of Board committees also increases significantly, from a median value of 0 in the pre-privatisation period to a median value of three committees in the post-privatisation period (Table 8, Panel B). These increases in the number of executive directors and of board committees are not due to an increase in board size.

[Table 8]

The results shown in Table 9 suggest that privatised firms attempt to mimic the corporate governance structures of former public firms by increasing the number of executive directors and the number of Board committees. Neither privatised firms' board size, the number of executive directors, or the number of Board committees are significantly different from those of their industry peers.

[Table 9]

SOEs inefficiency is often explained by and blamed on their objectives and the presence of the State and politicians within their governance structures. However, our results indicate that the presence of politicians as firm directors does not statistically decrease after privatisation (Table 10, Panel B). What does change is the separation of the posts of Chairman of the Board and CEO. After privatisation, the percentage of firms in which the Chairman also holds the post of CEO decreases (from 71.42% in year -2 to 64.28% in year +2, Table 10, Panel B). At the same time, the percentage of firms where the Secretary of the Board is also a Director increases significantly. Furthermore, over 71.42% of firms approved a Rule for the Board of Directors in the year after privatisation and 71.42% approved an Internal Code of Conduct in the three years

following the end of the privatisation process. These numbers go some way to supporting H6, and suggest that firms restructure their governance structures and rules following privatisation. By doing so, they may be trying to send a signal to the market about their commitment to good Corporate Governance Practices. While the percentage of privatised firms that approved a Rule for the Board of Directors in the year after the privatisation tops 60%, the equivalent figure for their matched pairs is a mere 26% in the first year following privatisation (Table 11). The percentage of privatised firms that have approved an Internal Code of Conduct or published an Annual Corporate Governance Report after privatisation is also higher, although the differences are not statistically significant in this case.

[Table 10]

[Table 11]

These results suggest that significant changes in ownership and other corporate governance characteristics occur after privatisation. As suggested by Boubakri *et al.* (2004), the success of privatisation may rely on the effectiveness of the corporate governance mechanisms that are put into place after ownership is transferred. Some authors have tried to explore this link between the corporate governance structure of privatised firms and their post-privatisation performance. Boubkari and Cosset (1998) and Boubkari *et al.* (2005) suggest there is a link between changes in privatised firms' ownership structure and their performance, while Frydman *et al.* (1999) and Earle and Teledge (2002) find that divested firms controlled by outside owners outperform those owned by insiders. Qi *et al.* (2000) report higher post-privatisation performance for privatised firms in which the State has relinquished control dominated by institutional investors.

Although not shown, we did attempt to analyse whether these changes might help explain post-privatisation performance. We found that the sub-sample of privatised firms that enjoyed enhanced profitability and efficiency underwent significant increases in free float, managerial ownership and the number of Board committees, as well as significant decreases in the percentage of shares retained by the State and those held by the five largest shareholders, following the last stage of the privatisation process. We also found lower ratios of free float, a higher State presence, lower managerial ownership and a higher ownership concentration for the sub-sample of firms that suffered reduced profitability and efficiency. However, it must also be acknowledged that these results can be taken as no more than a suggestion, given the small size of the sample of firms that showed decreases in profitability and efficiency. Moreover, reliable estimations of potential significant differences in the ownership and corporate governance characteristics during the post-privatisation period between firms with and without enhanced performance cannot be made with such a small sub-sample. We were thus unable to ascertain whether privatised firms' corporate governance mechanisms significantly influence the effectiveness of the privatisation process.

5. Conclusions

Privatisation processes have been and continue to be a major phenomenon in many countries. They are seen as a way to modernize a country's economy and to reduce political interference in economic activity. Spain has not been an exception to this general trend. More than 100 firms were privatised between 1985 and 2005. Privatisation may significantly influence firms' corporate governance structure. This paper set out to analyse the extent to which privatisation spawns changes in firms' performance and their corporate governance structures for a sample of Spanish firms that were privatised by public offerings.

Our pre- versus post-privatisation matched-pair methodology fails to unearth evidence of significant increases in divested firms industry-adjusted profitability and efficiency over a medium term period of up to three years after privatisation. Such results seem to contradict those reported by Boubakri and Cosset (1998) for a sample of firms privatised in developing countries and by D´Souza and Megginson (1999) for a sample of firms privatised in industrialized countries. In contrast, they tend to confirm the conclusions of earlier studies of the Spanish case. Sanchís (1996) found that not all privatisation processes led to an improvement in firms' productivity, and Melle (1999) and Romero (2005) only discovered an increase in the sales to employee ratio. The fact that the sample used is composed of the 'Crown Jewels of the Spanish State' -mostly firms that were restructured before privatisation and firms that were already profitable- may help to explain these results. Alternatively, it may be the case that privatised firms need more than three years after privatisation to improve their performance.

Our results provide some support for the claim that significant changes in firms' ownership and corporate governance characteristics occur following privatisation. Privatisation obviously entails a significant cut in State-held shares, but also a significant increase in the shareholdings owned by incumbent managers. Moreover, State interest in creating a stable core of shareholders leads banks and saving banks to become major blockholders of privatised firms. As far as the issue of Boards of directors in privatised firms is concerned, our results show that the number of executive directors increases, as does the number of Boards committees; yet surprisingly the number of politicians as directors does not decrease.

Furthermore, a significant fraction of divested firms approve a Rule of the Board of Directors and an Internal Code of Conduct following privatisation. Some of those changes, e.g., those related to ownership structure, must be taken as no more than a

reflection of the privatisation process *per se*. However, changes relating to privatised firms' Board structures seem to hark back to other quoted firms. Neither Board composition, nor Board size or the number of committees in divested firms differs significantly from other private companies. All these results seem to support the predictions of a link between corporate governance changes and the success of privatisation processes, which is an issue that has not been studied in depth by the empirical literature. Further studies that employ larger databases may help to shed further light on this interesting and important issue.

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Figure 1: Evolution of free float (last stage, LS)
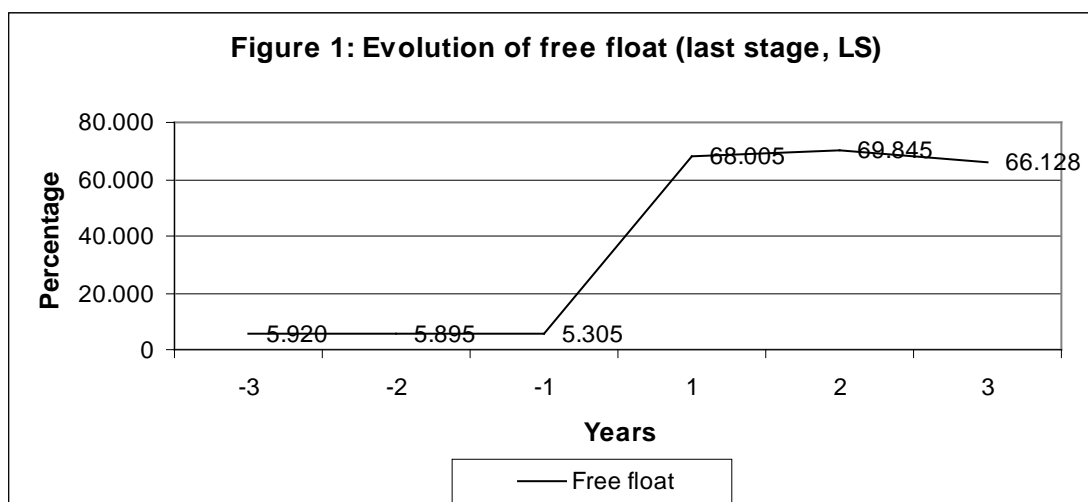
TABLE 1: Sample description

Privatisation year [1]	Privatised firms	Percentage of shares privatised through POs [2]	Industry	Control firms
1986	Amper	68	Electronics (SIC36)	Duro Felguera
1986	Gesa	39	Gas / Electricity (SIC 49)	HC
1987	Acesa	57.6	Highways (SIC 47)	Iberpistas
1987	Gas Madrid	16	Gas (SIC 49)	HC
1988/2001	Ence	100	Paper (SIC 26)	Papelera Española/ Iberpapel
1988/98	Endesa	84.65	Electricity (SIC 49)	Unión Fenosa/ Iberdrola
1989/97	Repsol	100 [3]	Petrol / Gas (SIC 29)	Ercros/ Cepsa
1993/98	Argentaria	100	Banks (SIC 160)	Banco Santander/ Banco Popular
1995/99	Telefónica	31.88	Telecommunication (SIC 48)	Aumar/ Europistas
1999	Indra	66.09	Technology (SIC 73)	Zeltia
1996	Gas Natural	3.81	Gas (SIC 49)	Iberdrola
1997	Aldeasa	65.04	Distribution (SIC 52)	Inmobiliaria Urbis
1997	CSI-Aceralia	52.8	Basic metals (SIC 33)	Acerinox
1998	Tabacalera	52.4	Tobacco/food (SIC 21)	Campofrío
1999	REE	31.5	Energy (SIC 49)	Aguas de Barcelona
2001	Iberia	48.51	Air transport (SIC 45)	Prosegur

(1) The years refer to the first and last stage of the privatisation processes.
(2) The percentage of shares privatised through POs reflects the total percentage of shares privatised along all the privatisation stages (from the first stage to the last stage of the privatisation process).
(3) 4.2 percent was directly privatised to the bank BBV and 9.8 corresponded to a bond offering.
 POs denotes public offerings.

Source: Own elaboration

TABLE 2: Performance and corporate governance variables

Variables	Description
PANEL A: PERFORMANCE VARIABLES	
Profitability	
Return on assets (ROA)	Operating profit divided by total assets
Return on equity (ROE)	Net profit divided by total equity
Return on sales (ROS)	Operating profit divided by sales
Operating efficiency	
SALES/EMP	Sales divided by the number of employees
NP/EMP	Net profit divided by the number of employees
OP/EMP	Operating profit divided by the number of employees
AV/EMP	Added value (defined as the difference between sales income and the cost of goods and bought-in services, adjusted for changes in level of stocks and work in progress) divided by the number of employees
PANEL B: OWNERSHIP VARIABLES	
FREE FLOAT	Percentage of free-float (100% minus the percentage of shares held by the shareholders that have a stake above 5%)
1 BLOCK	Stake of the largest shareholder
3 BLOCK	Stake of the three largest shareholders
5 BLOCK	Stake of the five largest shareholders
STATEOWN	Percentage of shares owned by the State
BOARDOWN	Percentage of shares owned by the members of the Board (directors)
MANOWN	Percentage of shares owned by the firm's managerial directors
FAMOWN	Percentage of shares owned by a family or a individual person
STAKES 5	Dummy variable that takes value 1 if there are stakes above 5% and 0 otherwise
STAKES 10	Dummy variable that takes value 1 if there are stakes above 10% and 0 otherwise
STAKES 25	Dummy variable that takes value 1 if there are stakes above 25% and 0 otherwise
STAKES 50	Dummy variable that takes value 1 if there are stakes above 50% and 0 otherwise
STAKES 75	Dummy variable that takes value 1 if there are stakes above 75% and 0 otherwise
FINANCIAL	Dummy variable that takes value 1 if a financial entity has a stake above 5% and 0 otherwise
NFINANCIAL	Dummy variable that takes value 1 if a non financial entity has a stake above 5% and 0 otherwise
OTHER FIRMS	Dummy variable that takes value 1 if a pension or investment fund holds has a stake above 5% and 0 otherwise
FAMILIES	Dummy variable that takes value 1 if a family has a stake above 5% and 0 otherwise
STATE	Dummy variable that takes value 1 if the State has a stake above 5% and 0 otherwise
PANEL C: VARIABLES RELATED TO THE BOARD OF DIRECTORS	
BSIZE	Number of directors
BMAN	Number of managerial directors sitting on the Board
BCOMMITTEES	Number of committees on the Board
POLITICIANS	Dummy variable that takes value 1 if a politician or public charge in the present or past is sitting on the Board and 0 otherwise
CEO	Dummy variable that takes value 1 if the CEO and Chairman is the same person and 0 otherwise
SECRETARY	Dummy variable that takes value 1 if the secretary is sitting in the Board and 0 otherwise
RULEBOARD	Dummy variable that takes value 1 if the firm has a Rule for the Board and 0 otherwise
INTCODE	Dummy variable that takes value 1 if the firm has an Internal Code and 0 otherwise
GOV REPORT	Dummy variable that takes value 1 if firm has an Annual Report of Governance and 0 otherwise

TABLE 3: Pre versus post-privatisation firms' industry adjusted performance

Variable	Pre- privatisation		Post- privatisation		Difference		Z	
	Mean	Median	Mean	Median	Means	Medians	t-student	Wilcoxon
ROA -3+3 (1S) N=11	1.811	1.155	1.530	2.085	-0.281	0.930	-0.100	-0.445
ROA -3+3 (LS) N=14	1.258	0.806	1.030	0.768	-0.228	-0.038	-0.098	-0.282
ROE -3+3 (1S) N=11	3.836	1.485	7.618	5.869	3.782	4.384	1.301	-1.156
ROE -3+3 (LS) N=14	-2.377	2.900	5.816	6.811	8.193	3.911	0.466	-0.534
ROS -3+3 (1S) N=11	-5.514	-2.749	-0.159	-0.882	5.355	1.867	0.591	-1.156
ROS -3+3 (LS) N=14	-4.515	-2.035	0.077	0.360	4.592	2.395	0.672	-1.287
SALES/EMP -3+3 (1S) N=10	0.009	0.009	-0.005	-0.003	-0.014	-0.012	-1.352	-1.478
SALES/EMP -3+3 (LS) N=13	0.010	0.012	-0.435	-0.049	-0.445	-0.061	-1.178	-3.110 ***
NP/EMP -3+3 (1S) N=10	0.007	0.003	0.008	0.003	0.001	0.000	0.049	-0.357
NP/EMP -3+3 (LS) N=13	0.007	0.004	-0.009	-0.007	-0.016	-0.011	-2.270 **	-2.062 **
OP/EMP -3+3 (1S) N=10	0.002	0.000	-0.005	0.003	-0.007	0.003	-0.454	-0.968
OP/EMP -3+3 (LS) N=13	0.003	-0.001	-0.006	-0.004	-0.009	-0.003	-0.851	-1.363
AV/EMP-3+3 (1S) N=5	0.050	0.010	0.003	0.002	-0.047	-0,008	-1.149	-0.674
AV/EMP-3+3 (LS) N=7	0.051	0.010	0.016	0.027	-0.035	0.017	-1.492	-1.352

* Statistically significant at a 10 percent level
** Statistically significant at a 5 percent level
*** Statistically significant at a 1 percent level
1S denotes the first stage of the privatisation process
LS denotes the last stage of the privatisation process

TABLE 4: Pre versus post-privatisation firms' ownership structure

Variable	Pre- privatisation		Post- privatisation		Difference		Z	
	Mean	Median	Mean	Median	Means	Medians	t-student	Wilcoxon
PANEL A: OWNERSHIP STRUCTURE (1S)								
FREE FLOAT N=12	13.641	6.905	49.790	46.807	36.149	39.902	5.766 ***	-3.059 ***
1BLOCK N=12	74.826	80.278	36.010	32.500	-38.816	-47.778	-6.186***	-2.981 ***
3 BLOCK N=9	82.099	93.583	43.623	46.847	-38.476	-46.736	-4.766 ***	-2.547**
5 BLOCK N=9	85.847	97.863	47.898	46.034	-37.949	-51.829	-4.973***	-2.666 ***
STATEOWN N=12	71.587	80.278	25.224	9.870	-46.363	-70.408	-5.612***	-3.059 ***
BOARDOWN N=7	15.432	0.000	0.985	0.020	-14.447	0.020	-1.727	-0.676
MANOWN N=7	0.000	0.000	0.004	0.002	0.004	0.002	1.406	-1.787 *
PANEL B: OWNERSHIP STRUCTURE (LS)								
FREE FLOAT N=12	13.641	6.905	63.939	69.636	50.298	62.731	6.096***	-3.059 ***
1BLOCK N=12	74.826	80.278	18.711	10.342	-56.115	-69.936	-6.388 ***	-2.981 ***
3 BLOCK N=9	82.099	93.583	32.781	23.978	-49.318	-69.605	-4.611 ***	-2.666***
5 BLOCK N=9	85.847	97.863	41.709	32.638	-44.138	-65.225	-4.652 ***	-2.521 **
STATEOWN N=12	71.587	80.278	3.750	0.315	-67.837	-79.963	-7.127 ***	-3.064 ***
BOARDOWN N=6	18.004	11.043	0.156	0.037	-17.848	-11.006	-1.987	-0.943
MANOWN N=6	0.000	0.000	0.006	0.002	0.006	0.002	1.512	-1.787 *

* Statistically significant at a 10 percent level
** Statistically significant at a 5 percent level
*** Statistically significant at a 1 percent level
1S denotes the first stage of the privatisation process
LS denotes the last stage of the privatisation process

TABLE 5: Evolution of pre versus post-privatisation firms' major blockholders

Variable	Year -3 %	Year +3 %	McNemar	Year -2 %	Year +2 %	McNemar	Year -1 %	Year +1 %	McNemar
PANEL A: OWNERSHIP STRUCTURE (1S)									
STAKES 5 N=12	100	100	(a)	100	100	(a)	100	100	(a)
STAKES 10 N=12	100	83.333	(0.500)	100	83.333	(0.157)	100	83.333	(0.500)
STAKES 25 N=12	100	66.667	(0.125)	100	66.667	(0.125)	100	66.667	(0.125)
STAKES 50 N=12	75	25	(0.031)[**]	83.333	33.333	(0.031)[**]	83.333	33.333	(0.031)[**]
STAKES 75 N=12	58.333	8.333	(0.031)[**]	58.333	8.333	(0.031)[**]	50	8.333	(0.063)[*]
FINANCIAL N=11	16.667	58.333	(0.063)[*]	16.667	50	(0.500)	25	41.667	(0.500)
NFINANCIAL N=10	33.333	41.667	(1.000)	41.667	50	(1.000)	41.667	41.667	(a)
OTHER FIRMS N=10	0	0	(a)	0	0	(a)	0	0	(a)
FAMILIES N=10	0	0	(a)	0	0	(a)	0	0	(a)
STATE N=12	91.667	58.333	(0.219)	91.667	66.667	(0.250)	91.667	66.667	(0.250)
PANEL B: OWNERSHIP STRUCTURE (LS)									
STAKES 5 N=12	100	100	(a)	100	100	(a)	100	100	(a)
STAKES 10 N=12	100	58.333	(0.063)[*]	100	50	(0.031)[**]	100	50	(0.031)[**]
STAKES 25 N=12	100	41.667	(0.031)[**]	100	41.667	(0.016)[**]	100	33.333	(0.000)[***]
STAKES 50 N=12	75	0	(0.004)[***]	83.333	0	(0.002)[***]	83.333	0	(0.002)[***]
STAKES 75 N=12	58.333	0	(0.016)[**]	58.333	0	(0.016)[**]	50	0	(0.031)[**]
FINANCIAL N=10	8.333	75	(0.016)[**]	16.667	75	(0.063)[*]	16.667	75	(0.063)[*]
NFINANCIAL N=10	33.333	58.333	(1.000)	41.667	58.333	(1.000)	50	58.333	(1.000)
OTHER FIRMS N=10	0	0	(a)	0	0	(a)	0	0	(a)
FAMILIES N=12	0	0	(a)	0	0	(a)	0	0	(a)
STATE N=12	91.667	25	(0.021)[**]	91.667	25	(0.008)[***]	91.667	25	(0.008)[***]

(P-value)　(a)　It was not possible to estimate the McNemar Test because at least one variable was a constant
* Statistically significant at a 10 percent level
** Statistically significant at a 5 percent level
*** Statistically significant at a 1 percent level
% denotes percentage of firms
1S denotes the first stage of the privatisation process
LS denotes the last stage of the privatisation process

TABLE 6: Comparison of the post-privatisation firms' ownership structure with the control sample

Variable	Privatised firms		Control firms		Difference			Z
	Mean	Median	Mean	Median	Means	Medians	t-student	U Mann Whitney
PANEL A: OWNERSHIP STRUCTURE (1S)								
FREE FLOAT N=12	49.790	46.807	60.566	63.106	10.776	16.299	1.050	56
1 BLOCK N=12	36.010	32.500	26.986	19.284	-9.024	-13.216	-0.994	53
3 BLOCK N=10	41.916	41.874	46.285	51.212	4.369	9.338	0.432	43
5 BLOCK N=10	47.023	42.592	49.124	53.024	2.101	10.432	0.206	47
STATEOWN N=12	25.224	9.870	0	0	-25.224	-9.870	-3.015 [**]	18 [***]
BOARDOWN N=10	1.172	0.019	9.461	1.140	8.289	1.121	1.397	20[**]
MANOWN N=10	0.007	0.002	5.970	0.177	5.963	0.175	1.394	16 [***]
FAMOWN N=10	0	0	2.120	0	2.120	0	1.161	30[**]
PANEL B: OWNERSHIP STUCTURE (LS)								
FREE FLOAT N=12	63.939	69.636	54.695	56.946	-9.244	-12.690	-0.941	51
1 BLOCK N=12	18.711	10.342	27.643	22.437	8.932	12.095	1.303	46
3 BLOCK N=11	34.418	26.556	46.528	58.315	12.110	31.759	1.289	40
5 BLOCK N=11	40.672	36.911	49.589	58.385	8.917	21.474	0.907	47
STATEOWN N=12	3.750	0.315	0	0	-3.750	-0.315	-1.616	36 [***]
BOARDOWN N=11	0.927	0.022	10.425	2.288	9.498	2.266	1.765	19 [***]
MANOWN N=11	0.008	0.002	5.708	0.119	5.700	0.117	1.323	13.5[***]
FAMOWN N=11	0	0	1.688	0	1.688	0	1.012	38.5 [**]

* Statistically significant at a 10 percent level
** Statistically significant at a 5 percent level
*** Statistically significant at a 1 percent level
1S denotes the first stage of the privatisation process
LS denotes the last stage of the privatisation process

TABLE 7: Comparison of the post-privatisation firms' major blockholders with the control sample

Variable	Year +1			Year +2			Year +3		
	Privatised firms %	Control firms %	Fisher	Privatised firms %	Control firms %	Fisher	Privatised firms %	Control firms %	Fisher
PANEL A: OWNERSHIP STRUCTURE (1S)									
STAKES 5 N=12	100	83.333	1.140	100	100	(a)	100	91.666	1.043
STAKES 10 N=12	83.333	75	0.253	83.333	58.333	1.815	83.333	75	0.253
STAKES 25 N=12	66.667	50	0.354	66.667	50	0.686	66.667	50	0.686
STAKES 50 N=12	33.333	25	0.100	33.333	16.667	0.889	25	25	0.000
STAKES 75 N=12	8.333	0	0.958	8.333	0	1.043	8.333	0	1.043
FINANCIAL N=12	41.667	50	0.182	50	58.333	0.168	58.333	66.667	0.000
NFINANCIAL N=12	50	66.667	0.354	50	75	1.600	50	58.333	0.168
OTHER FIRMS N=12	0	0	(a)	0	0	(a)	0	0	(a)
FAMILIES N=12	0	16.667	2.390	0	16.667	2.182	0	16.667	2.182
STATE N=12	66.667	8.333	7.987[***]	66.667	8.333	8.711[***]	58.333	8.333	6.750[**]
PANEL B: OWNSERHIP STRUCTURE (LS)									
STAKES 5 N=12	100	100	(a)	100	100	(a)	100	91.667	1.043
STAKES 10 N=12	50	91.667	5.042[*]	50	75	1.600	58.333	91.667	3.566
STAKES 25 N=12	33.333	50	0.686	41.667	50	0.168	41.667	50	0.168
STAKES 50 N=12	0	16.667	2.182	0	16.667	2.182	0	16.667	2.182
STAKES 75 N=12	0	0	(a)	0	0	(a)	0	0	(a)
FINANCIAL N=12	75	75	0.000	75	83.333	0.253	75	83.333	0.253
NFINANCIAL N=12	58.333	58.333	0.068	58.333	66.667	0.023	58.333	58.333	0.000
OTHER FIRMS N=12	0	0	(a)	0	0	(a)	0	8.333	1.043
FAMILIES N=12	0	25	3.162	0	25	3.162	0	16.667	2.182
STATE N=12	25	0	3.429	25	0	3.429	25	0	3.429

(a) It was not possible to estimate the Fisher Test because at least one variable was a constant
* Statistically significant at a 10 percent level
** Statistically significant at a 5 percent level
*** Statistically significant at a 1 percent level
% denotes the percentage of firms
1S denotes the first stage of the privatisation process
LS denotes the last stage of the privatisation process

TABLE 8: Pre versus post-privatisation firms' Board of Directors' characteristics

Variable	Pre- privatisation		Post-privatisation		Difference		Z	
	Mean	Median	Mean	Median	Means	Medians	t- student	Wilcoxon
PANEL A: FIRST STAGE (1S)								
BOARDSIZE N=14	14.619	14	13.214	12.500	-1.405	-1.500	-1.522	-1.413
BMAN N=14	1.988	1.583	2.071	2	0.083	0.417	0.246	-0.563
BCOMMITTEES N=12	0.333	0.000	1.916	2	1.583	2	3.644[***]	-2.401[**]
PANEL B : LAST STAGE (LS)								
BOARDSIZE N=14	14.619	14	14.571	13.666	-0.048	-0.334	-0.038	-0.420
BMAN N=14	1.988	1.583	2.023	2	0.035	0.417	0.165[*]	-0.880[*]
BCOMMITTEES N=12	0.333	0.000	2.750	3	2.417	3	5.800[***]	-2.840[***]

* Statistically significant at a 10 percent level
** Statistically significant at a 5 percent level
*** Statistically significant at a 1 percent level
1S denotes the first stage of the privatisation process
LS denotes the last stage of the privatisation process

TABLE 9: Comparison of the post-privatisation firms' Board of Directors' characteristics with the control sample

Variable	Privatised firms		Control firms		Difference			Z
	Mean	*Median*	*Mean*	*Median*	*Means*	*Medians*	*t-student*	*U Mann Whitney*
PANEL A: FIRST STAGE (1S)								
BOARDSIZE N=14	13.214	12.500	14.880	14.667	1.666	2.167	0.948	93
BMAN N=14	2.071	2	2.452	2.333	0.381	0.333	0.806	79.5
BCOMMITTEES N=14	1.642	1.500	1.023	0.833	-0.619	-0.667	-1.324	73.5
PANEL B: LAST STAGE (LS)								
BOARDSIZE N=14	14.571	13.666	14.642	13.166	0.071	-0.500	0.036	86
BMAN N=14	2.023	2	2.154	2	0.131	0	0.308	97.5
BCOMMITTEES N=15	2.266	3	1.622	2	-0.644	-1.000	-1.217	84.5

* Statistically significant at a 10 percent level
** Statistically significant at a 5 percent level
*** Statistically significant at a 1 percent level
1S denotes the first stage of the privatisation process
LS denotes the last stage of the privatisation process

TABLE 10: Evolution of pre versus post-privatisation firms' Board of Directors' characteristics

Variable	Year -3	Year +3		Year -2	Year +2		Year -1	Year +1	
	%	*%*	*McNemar*	*%*	*%*	*McNemar*	*%*	*%*	*McNemar*
PANEL A: FIRST STAGE (1S)									
POLITICIANS N=14	71.428	85.714	(1.000)	78.571	85.714	(1.000)	85.714	85.714	(1.000)
CEO N=14	64.285	78.571	(1.000)	71.428	78.571	(1.000)	71.428	78.571	(1.000)
SECRETARY N=14	7.142	7.142	(1.000)	7.142	7.142	(1.000)	0	0	(a)
RULEBOARD N=13	0	50	(0.016) **	0	50	(0.016) **	0	42.857	(0.031) **
INTCODE N=13	0	57.142	(0.016) **	7.142	57.142	(0.016) **	7.142	50	(0.031) **
PANEL B: LAST STAGE (LS)									
POLITICIANS N=14	71.428	85.714	(1.000)	78.871	85.714	(1.000)	85.714	85.714	(1.000)
CEO N=14	64.285	64.285	(0.625)	71.428	64.285	(1.000)	71.428	64.285	(1.000)
SECRETARY N=14	7.142	21.428	(0.031)**	7.142	28.571	(0.016)**	0	14.285	(0.000)***
RULEBOARD N=13	0	71.428	(0.016)**	0	71.428	(0.002)***	0	71.428	(0.002)***
INTCODE N=13	0	71.428	(0.063)*	7.142	71.42	(0.016)**	7.142	64.285	(0.031)**

(P-value)
* Statistically significant at a 10 percent level
** Statistically significant at a 5 percent level
 *** Statistically significant at a 1 percent level
% denotes the percentage of firms
1S denotes the first stage of the privatisation process
LS denotes the last stage of the privatisation process

TABLE 11: Evolution of the post-privatisation firms' and control sample Board of Directors'
characteristics

Variable	Year +1			Year +2			Year +3		
	Privatised firms %	*Control firms %*	*Fisher*	*Privatised firms %*	*Control firms %*	*Fisher*	*Privatised firms %*	*Control firms %*	*Fisher*
PANEL A: FIRST STAGE (1S)									
POLITICIANS N=14	85.714	64.285	1.714	85.714	64.285	1.714	85.714	71.428	0.848
CEO N=14	78.571	57.142	0.938	78.571	71.428	0.011	78.571	57.142	0.938
SECRETRARY N=14	0	21.428	3.360	7.142	21.428	1.167	7.142	14.285	0.373
RULEBOARD N=14	42.857	21.428	1.474	50	21.428	2.489	50	28.571	1.348
INTCODE N=14	50	42.857	0.144	57.142	50	0.144	57.142	57.142	0.000
GOV REPORT N=16	37.500	12.500	2.667	37.500	31.250	0.139	37.500	31.250	0.139
PANEL B: LAST STAGE (LS)									
POLITICIANS N=14	85.714	71.428	0.848	85.714	71.428	0.848	85.714	78.571	0.243
CEO N=14	64.285	57.142	0.150	64.285	71.428	0.164	64.285	50	0.097
SECRETRARY N=14	14.285	14.285	0.000	28.571	14.285	0.848	21.428	14.285	0.243
RULEBOARD N=15	66.667	26	4.821[**]	66.667	40	2.143	66.667	46.667	1.222
INTCODE N=15	60	53.333	0.136	66.667	66.667	0.000	66.667	66.667	0.000
GOV REPORT N=16	56.250	31.250	2.032	56.250	50	0.125	56.250	50	0.125

* Statistically significant at a 10 percent level
** Statistically significant at a 5 percent level
*** Statistically significant at a 1 percent level
% denotes the percentage of firms
1S denotes the first stage of the privatisation process
LS denotes the last stage of the privatisation process

[i] Nevertheless, it is not possible to assure that privatisation is the only cause of the observed increase in performance (Bishop and Kay, 1992; Green and Volggelsang, 1994). Changes in the competence and in the structural environment of the firm may also influence post-privatisation firms' performance (Newbery, 1997). The performance improvement may have taken place before privatisation (Martin and Parker, 1997).

[ii] Nevertheless, other studies suggest that privatisation may not lead to systematic improvements of either allocative efficiency (Pestieau and Tulkens, 1993) or of productive efficiency (Martin and Parker, 1997). The results of these studies suggest that the change from public to private ownership may not be the main determinant of the observed increase in the performance of privatised firms. Other factors, such as firms' management and the competitiveness of markets may influence firms' performance after privatisation.

[iii] Nevertheless, if the State's aim is to create a hard core of stable shareholders when privatising, a lower level of free float should be observed for privatised firms.

[iv] Strategic firms refer to firms that belong to regulated and important industries for the economy.

[v] The first stage of the privatisation process -1S- refers to the first Public Offering, while the last stage of the privatisation process -LS- refers to the last Public Offering. For those firms that were privatised through a single Public Offering, 1S and LS coincide. The results are always shown using both benchmarks.

[vi] For the estimation of the measures in the pre-privatisation period, the year of privatisation considered to be that of the first public offering.

[vii] The McNemar Test for 2x2 tables is used to test the difference between paired proportions, or in studies with "before and after design" whether the variables of interest are dichotomous in nature.

[viii] The Fisher Test for 2x2 tables is a statistical significance test used in the analysis of categorical data when the sample size is small and when the members of two independents groups can fall into one of two mutually exclusive categories. It is employed to determine whether the proportions of those falling into each category differ by group.

[ix] Pre-privatisation free-float amounts, as a mean, to 13.6%, although the first PO had not taken place, due to the fact that some firms already did quote on the Stock Market and had a small percentage of free-float. Those were the cases of Endesa that began quoting in 1958, Telefónica that began quoting in 1925, Tabacalera in 1997 or Gas Natural in 1985.