WHY DO COMPANIES GO PRIVATE? THE SPANISH CASE

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## WHY DO COMPANIES GO PRIVATE? THE SPANISH CASE\*

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## Abstract

Although more than five hundred companies have gone private from the Madrid Stock Exchange in the last twenty-five years, applied economic and business literature contains few papers analysing the reasons behind this phenomenon, which is more common than we presume. Putting forward the costs and benefits of being listed, we attempt to find out the causes of going private in order to propose and test a series of hypotheses related to Stock Market performance. The main results show that the high concentration of shareholdings in these firms, often resulting from prior takeovers, has a negative impact on their stock market liquidity. On the other hand, the variable measuring the degree of attention paid by financial analysts to these firms is significant. Their lack of interest could be explained by the aforementioned shortage of liquidity. However, the size of the firm also appears to be an important factor related to their unconcern. In the end, the lack of depth of this firms' shares market makes that the information that company obtains from market prices about company value lacks accuracy, and this is possibly the greatest loss when it comes to deciding to go private.

Key Words: Going Private, Public-to-Private Transactions, Delisting, Tender Offer, Liquidity, Financial Analyst

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## 1. Introduction

Some of the main characteristic functions of the Stock Market are to supply risk capital for firms, to spread that risk among investors, to assess firms' efficiency through market prices (helping to efficiently allocate resources) or to provide a way to obtain control of firms in order to correct managerial inefficiencies. In a few words, the Stock Market mobilises capital resources and drives economic efficiency, its main social functions, by means of market prices in an affordable way. However, firms can stay away from the market because, as Pagano *et al.* (1995) say, "going public is not a stage, it is a choice". Indeed, some firms which once chose to be traded on Stock Exchange also decide to leave this market at a certain point in time. When a firm permanently leaves the Stock Exchange so its shares or bonds are no longer publicly traded, it is said to have gone private. We aim to test whether there are any common features in these firms which could explain the reasons leading them to such episodes.

Going private has seldom been empirically analysed in the economic literature, mostly in economies in which the shareholdings of firms are relatively dispersed. For the US economy, some of these studies resulted from noteworthy events such as the 1980s' merger & acquisition wave (e.g., Jensen, 1989; Lehn and Poulsen, 1989; Rao *et al.*, 1995) or the Sarbanes-Oxley Act of 2002, aimed at preventing financial corporate scandals in the country (Engel *et al.*, 2004). Less studies are found for the United Kingdom, despite the increasing figures of going private acquisitions in this economy throughout the 90's: from 4.75% of the transactions involving publicly traded companies in 1991-1997 to 23.7% in 1998-2000 (Weir *et al.*, 2003). These events have also been relevant in Australia: from 1988 to 1991, approximately 10% of all takeovers were going private transactions (Eddey *et al.*, 1996).

In most of these studies, the primary factor establishing the hypothesis about the reasons that lead a firm to leave the Stock Market is the struggle between small shareholders and managers (Jensen, 1986), so going private would be a way to reduce agency costs (i.e. the costs related to prevent managers pursuing their own interest at the expense of the shareholders of the firm), since it makes possible to internalize the consequences of managerial decisions. Empirically, Lehn and Poulsen (1989), investigating the source of stockholders gains in 263 successful going private transactions in the US from 1980 through 1987, find that a major source of these gains is the mitigation of agency problems associated with free cash flow. Rao *et al.* (1995) provide new support for that hypothesis with US data. However, Eddey *et al.* (1996), Weir and Lang (2002), Weir *et al.* (2005) find no evidence in Australia and the UK, respectively, for the free cash flow hypothesis and neither did Andres *et al.* (2004) for a sample of European companies (most of them from UK).

Another hypothesis put forward in applied economic literature takes into consideration financial incentives for public-to-private transactions such as wealth transfers to going private firms (Lowestein, 1985; Marais *et al.*, 1989; Asquith and Wizman, 1990) and especially to stockholders (DeAngelo *et al.*, 1984), which may be based upon information asymmetries between insiders and shareholders (Kleinbard, 1975; Palepu, 1990), and reductions in transaction costs (DeAngelo *et al.*, 1984; DeAngelo and DeAngelo, 1987).

When the ownership structure is highly concentrated (so that the agency problem is relieved) and there is no remarkable change in corporate legislation, it is difficult to find empirical studies about the reasons that may have triggered a going private outcome, although the figures are relevant. Indeed, Thomsen and Vinten (2006) estimate (basing upon the Thomson Financial database) that nearly 28.4% of the population of listed European firms ceased to trade over the period 1995-2005 and observe particularly high going-private frequencies in Austria, Spain and Portugal. Analyses of going-private in particular economies are performed for Germany (Jansen and Klezmer, 2003) and Poland (Jackowicz and Kowalewski, 2005).

In this paper we investigate why firms go private in the case of the Madrid Stock Exchange, a Stock Market in which the prevailing ownership structure of quoted firms is concentrated. The figures in this market are a good example of this situation, as when considering the 35 largest firms in the market (in terms of capitalisation, liquidity and trading frequency), comprising the Ibex 35 index, we find that the average size of significant shareholdings in 2002 was 48%, much higher than in Anglo-Saxon markets. In the case of our sample of going private firms, this average is even much higher than for the Ibex-35: 91% in the year before going private, adding the largest five stakes together.

In fact, one of the main conclusions is that the highly concentrated shareholders structure of the firms is a primary cause for a firm of going private since, in so far as large shareholders don't want to split their control blocks, liquidity for shares will be low and, consequently, the cost of market capital could increase. Besides, financial analysts could lose their interest on these firms and, finally, market prices would provide less information about these companies.

The paper is structured as follows: In the next section we provide some evidence about going private in Madrid Stock Exchange, and then, in section 3, we set out the theoretical causes that may be behind these going private transactions, which will indirectly enable us to assess whether the Stock Market is performing its social functions. Specifically, we propose different hypotheses based upon some benefits and costs of being listed such as the value of market prices as a critical source of information, the value of confidentiality, information asymmetries, the trade-off between control and liquidity and the need for equity financing. Several variables related to these factors will be proposed in section 4 and tested in section 5 for a sample of 102 delisted and non-delisted firms from the Madrid Stock Exchange during the 1991-2003 period. Section 6 contains a summary of our main conclusions.

## 2. Some data on the Madrid Stock Exchange

An analysis of reasons of going private is of interest because, in the last twenty years, one of the most unnoticed financial events occurring on the Madrid Stock Market (the most important in Spain) was the large number of companies going private. Behind these transactions there are many different classes of firms: large corporations which totally acquired by or merge with another company, medium-sized firms which are subsidiaries of multinational companies, small firms, usually investment firms generally based on family fortunes, and others. Although their weight on the Stock Market in terms of capitalisation is not very important, as in the UK (see Weir *et al.*, 2005), their number is quantitatively unquestionable. From 1981 to 2003, more than five thousand companies have left the Stock Market. This figure is especially remarkable because of the small size of the Madrid Stock Exchange compared with markets like the London Stock Exchange or the NYSE. Nevertheless, as we have mentioned, going private transactions can be also be considered relevant on these markets. In any case, according to the figures provided by the World Federation of Exchanges, stock markets similar in size to the Spanish one (64% of domestic market capitalisation relative to the GDP in 2002), such as Euronext (the merger of the Stock Exchanges of Belgium, France, The Netherlands and Portugal) or the Stockholm Stock Exchange, present similar percentages of firms gone private in relation to the number listed, just in the short series of data available (1999-2003).

In Spain, with the exception of investment firms, the number of which multiplied by nearly eleven in the 1980-2003 period, banks, insurance companies and non-financial firms cut their presence on the Madrid Stock Market to less than a half from 1980 to 2003 (Table 1).

If we limit the period of study from 1991, date of the principal Spanish legislation on disclosure and mandatory bid rules, to avoid the effect of this important legislative change, we find that in the case of non-financial firms almost 60% of the utility firms, 40% of the food, beverage and tobacco companies and 70% of the construction materials firms listed in 1991 had gone private by 2003. In most cases, this means that the number of listed companies in each industry has been reduced; only for communications and information services firms and other market service companies has the number of listed firms increased, because the number of new listed

companies exceeds the delisted firms in these industries. These figures are especially relevant if we consider that, in Spain, the average "Stock Market life" of a non-financial firm is longer than that of a financial firm.

Year	Banks and Insurance Firms	Investment Firms	Foreign Firms	Domestic Non- Financial Firms	Market Capitalization (in billions of constant €)
1980	56	166		274	29,243
1981	56	165		277	32,130
1982	51	152		245	24,370
1983	51	135		208	26,487
1984	48	140		187	32,033
1985	47	119		168	38,666
1986	45	105		161	75,116
1987	48	103		176	84,824
1988	48	124		196	106,566
1989	49	165		203	130,081
1990	50	172	2	206	105,779
1991	49	175	3	206	120,468
1992	41	156	3	199	105,229
1993	36	153	4	184	157,299
1994	36	157	4	178	147,918
1995	34	154	4	171	158,614
1996	31	156	4	166	211,425
1997	29	186	4	164	289,427
1998	26	292	5	157	363,926
1999	22	542	4	151	445,522
2000	20	847	6	149	537,047
2001	21	1285	5	149	504,769
2002	21	1654	6	139	385,546
2003	18	1806	6	130	484,346

 Table 1

 Number of listed companies and market capitalisation (1980-2003)

Data Source: Madrid Stock Exchange

As we mentioned earlier, the significance of delisted firms in terms of capitalisation is not very important, except for the year 1999 when the euro was introduced (Table 2) and one of the biggest banks (Banco Central Hispano) was delisted. Anyway this figure is largely due to non-financial firms going private, especially to Spanish subsidiaries of foreign parent companies, what reveals that it could be more beneficial for the parent companies to trade only on their national markets, on other EMU markets (possibly with lower costs and more investment activity) or in major stock markets (especially, the NYSE). In relation to firms, the number of delisted firms is similar in both sectors (Table 3).

		Table 2	
	Weight of going private	firms in terms of market capitalisation	
Year	Market Capitalisation (millions of €) (equity) A	Going Private Firms Capitalisation (1) (millions of €) B	B/A (%)
1991	85,963	1,607	1.9%
1992	80,127	678	0.8%
1993	125,209	3,141	2.5%
1994	122,312	1,475	1.2%
1995	137,626	991	0.7%
1996	189,794	305	0.2%
1997	266,009	2,782	1.0%
1998	342,775	16,855	4.9%
1999	430,653	35,823	8.3%
2000	537,047	17,096	3.2%
2001	525,839	2,593	0.5%
2002	419,451	6,574	1.6%
2003	547,762	7,467	1.4%

Data Source: Sistema de Interconexión Bursátil (SIB) and Madrid Stock Exchange Annual Reports

(1) These data are undervalued because to obtain the market capitalisation of 63 going private firms in the 1991-2003 period has been impossible. Nevertheless, all of them were small in size.

	Going- Private	Go		on-Financial Fir	ms	Going-Private Financial Firms			
Year	Frequency	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage
1991	17	7	5.1%	7	5.1%	10	7.2%	10	7.2%
1992	45	9	6.6%	16	11.7%	36	25.9%	46	33.1%
1993	29	13	9.5%	29	21.2%	16	11.5%	62	44.6%
1994	17	10	7.3%	39	28.5%	7	5.0%	69	49.6%
1995	20	9	6.6%	48	35.0%	11	7.9%	80	57.6%
1996	16	10	7.3%	58	42.3%	6	4.3%	86	61.9%
1997	16	9	6.6%	67	48.9%	7	5.0%	93	66.9%
1998	17	13	9.5%	80	58.4%	4	2.9%	97	69.8%
1999	23	17	12.4%	97	70.8%	6	4.3%	103	74.1%
2000	18	13	9.5%	110	80.3%	5	3.6%	108	77.7%
2001	13	6	4.4%	116	84.7%	7	5.0%	115	82.7%
2002	17	11	8.0%	127	92.7%	6	4.3%	121	87.1%
2003	28	10	7.3%	137	100%	18	100%	139	100%

Table 3 Going-Private Frequency (1991-2003)

Data Source: Madrid Stock Exchange Annual Reports

Another significant figure that attracts our attention arises when comparing going private acquisitions made by means of tender offers and the total number of tender offers: 35% of successful tender offers on the Madrid Stock Exchange were public-to-private transactions between 1991 and 2003.

## 3. Reasons for going private: the costs and benefits of being listed

There are many features distinguishing corporations from other types of firms and only a few of them are typically related to listed corporations. We focus on the latter in order to discuss the cost and benefits of being listed.

## I. Market Information and valuation

The most characteristic benefit of trading on a Stock Exchange is the information that the market provides in the form of prices (Rappaport, 1990). The informative process leading to those prices starts with "raw material" comprising the mandatory information that companies send to several Stock Market agents or supervisors, voluntary disclosure from these companies and an array of different public and private non-official informative sources. Investors work (directly or indirectly) with this information and send their outcomes to the market by means of bids for specific shares. The Stock Exchange provides a point of contact for buyers and sellers and a price is matched as the result of the expression of this highly varied partial information. This price, therefore, expresses many different expectations and constraints in a very brief way, and the larger the number of informed investors dealing on the market, the more information the price will provide.

The significance of market prices as a critical source of information may be diminished by asymmetric information which can therefore be considered a key factor for understanding going private decisions. Several empirical studies about going private test the effect of asymmetric information on market valuation through what is known as the undervaluation hypothesis. Two different ways of presenting this hypothesis are described. On the one hand, it is suggested that going private decisions could be masking the transfer of wealth from outsiders to insiders (Palepu, 1990), since insiders could be taking advantage of their more complete information about the real value of the firm, paying less to shareholders in a public-to-private acquisition. Kaplan (1989) found no empirical support for this assumption on the US market. For the Spanish Market, this hypothesis is quite difficult to sustain due to the existence of demanding legal requirements (since 1991) for firms that aim to go private. Generally, the Spanish Security Exchange Commission will be entrusted with supervising the "exit" price, which, empirically, exceeds the bid premiums of non-going private acquisitions in the market during the period of analysis by an average of ten per cent. A related explanation is provided by Eddey *et al.* (1996) who consider that a going private transaction would be a form of a takeover defence when insiders do not wish to see the firm

purchased at a "bargain price". So in these cases going private could be considered as a result of a firm's undervaluation.

On the other hand, undervaluation can be studied in relation to its possible causes, specifically the costs of voluntary disclosure. Theoretical models predict that higher transparency should be correlated with a higher equilibrium price or with a lower cost of equity capital (Espinosa *et al.*, 2004). Thus, companies which have good news to be sent to the market will have higher incentives to do so, since the expected benefit exceeds the cost. However, it cannot be assumed that companies which do not invest in voluntary disclosure do not have good perspectives. In this case, the problem could be transferred to financial analysts since they tend to concentrate their inquiries on firms which spend more money on sending additional information to the market, generally large organisations, so smaller firms would stop being considered an investment target by investors (as UK Institute of Directors complains) and would therefore have less help for reducing adverse selection. This situation could be called as "potential" undervaluation due to small size of firms. Empirically, Rao *et al.* (1995) find no association between undervaluation and the size of the firm, although they explain this result with multicolinearity among several explanatory variables.

Focusing on the relationship between the amount of information and the attention of financial analysts, some empirical studies connect a firm's level of disclosure with the number of analysts examining the company and the quality of their forecasts. For the United States, Lang and Lundholm (1996), and for Sweden, Adrem (1999), show that the greater the disclosure, the more analysts analyse the firm and the better is their forecast about its profits. In the Spanish case, Larrán and Rees (1999) also find a negative association between the number of analysts following a firm and their forecasting errors related to its profits<sup>1</sup>. Gonzalo and Inurrieta (2001) conclude that following analyst's recommendations provides significant investor gains. Gómez and López (2003) show that the recommendations made by analysts in the Spanish market are useful for investor decision-making processes. In sum, undervaluation would be related then to the costs of voluntary disclosure and the carelessness of financial analysts.

Whenever the Stock Market (investors, analysts) is undervaluing some firms, there is an incentive to buy them out to benefit from/prevent a wealth transfer between insiders and outsiders or avoid the costs of voluntary disclosure.

## II. Costs of administration and of publicity

There are other related costs associated to being listed: (i) the cost of mandatory disclosure, (ii) the cost of publicity and (iii) administrative expenses. (i) Auditing costs and the disclosure of accounting information to meet legal requirements represent a significant monetary cost, although they are necessary because of adverse selection and moral hazard (Pagano et al., 1995). These costs can be so important that critics of the Sarbanes-Oxley Act of 2002, which has increased disclosure requirements for listed corporations in the US, have, like Holmstrom and Kaplan (2003), focused on them to argue that this law will lead some public companies to go private and deter some private companies from going public. Engel et al., (2004) find that the guarterly frequency of going private in USA has modestly increased after the Sarbanes-Oxley Act was passed. In order to compare with Europe, although codes are voluntary in this area, Thomsen and Vinten (2006), analysing a sample of 3.577 delistings in the 1996-2004, find indications that the adoption of corporate governance codes and the increases in investor protection have raised the propensity to go private. In the case of Spain, it is too soon to analyse the consequences of this event since the main corporate governance code takes effect in 2007<sup>2</sup>. (ii) In relation to publicity, a going private transaction could show that a firm is attempting to avoid the publicity provided by a Stock Market when it wishes to hide bad news about its financial or economic status. However, this confidentiality is occasionally desired because firms do not wish to unveil information the secrecy of which could be crucial for their competitive advantage (Campbell, 1979; Pagano et al., 1995). Whichever the case may be,

<sup>&</sup>lt;sup>1</sup> Another empirical study of the Spanish market (Espinosa *et al.*, 2004) finds that disclosure quality has a positive effect on market liquidity since the latter can be assumed to be negatively related to adverse selection (Kyle, 1985). However, Kim and Verrecchia (1994) propose a positive relationship between liquidity and adverse selection.

<sup>&</sup>lt;sup>2</sup> Previous partial codes were voluntary adopted since 1998.

mandatory disclosure in these cases is seen either by firms or managers and directors as a cost in excess of the benefit of being valued by the market. (iii) Finally, common administrative expenses (Pagano, 1993; Pagano and Röell, 1998), such as Stock Exchange fees, certification or underwriting, and other stockholder servicing costs (DeAngelo *et al.*, 1984; DeAngelo, DeAngelo, 1987) would also be reduced by going private.

So going private transactions may also occur when the increasing costs of mandatory disclosure and administrative expenses come to a point that exceeds the benefits of the market's information.

## III. Control vs. liquidity

Market prices are one of the Stock Market's principal tools for supervising management, acting as an external corporate governance mechanism and helping both managers to evaluate their decisions and directors to evaluate managers and their management-monitoring capabilities. These prices are more significant the more competitive, broader, transparent, flexible and deeper the Stock Market is in general, and the more transparent, flexible and deeper the specific share is in particular. A key variable for achieving these conditions is the amount of shares (and generally the amount of shareholders) trading on the market, which determines its degree of liquidity. In sum, the quality (and benefit) of the information provided by market prices depends on the degree of liquidity, which is interrelated with the number of buyers and sellers and the number of shares dealing on the market. Therefore, for a firm to benefit from being listed, investors must be able to undo their position at any time. The larger the number of shares trading on the market and the larger the number of shareholders, all the easier this possibility will be<sup>3</sup>.

However, liquidity involves a cost for company managers and directors: the larger the free-float on the market, the easier it is for the market to discipline the firm. A high degree of liquidity, derived from a disperse shareholder structure, involves a latent danger, as no agreement is required to takeover the business. Following Jensen (1989), since the central weakness of public corporations is the struggle between shareholders and managers, going private could be a way to solve this problem<sup>4</sup>. Therefore, the cost of losing control or overcoming problems with shareholders for incumbents could be one of the reasons why a firm goes private. This cost would be higher for incumbents than the cost of losing liquidity, unlike when they decided to go public.

When the market for a stock has a low degree of liquidity there are fewer opportunities for incumbents to lose control of a firm without their consent. Thus, a highly concentrated shareholder structure dispels that danger. From a control perspective, this situation involves a major shareholder who is assumed to replace market monitoring<sup>5</sup>. From an informative viewpoint, the negative result is that trading prices cease to be an accurate reference of a firm's value, because a low degree of liquidity leads traders to desert the "captive" market due to a lack of opportunities to make money in the short run (Pagano, 1986). A small float combined with a small number of traders make prices more volatile, and small variations in the volume of traded shares disclose movements in the share's market<sup>6</sup>. Bids sometimes wait to be matched for several days or weeks. In this situation, incumbents lose the typical benefit of being listed. They themselves are responsible for this outcome, due to the large stakes that they have chosen to hold. These major stakes are often a result of market pressure for corporate control, either by their own prior defensive takeovers or offensive takeovers by outsiders. Whatever the case may be, these tender offers result in very high shareholdings, part of which nearly never return to the market.

<sup>&</sup>lt;sup>3</sup> This close relationship between market liquidity, market control and market monitoring is specifically studied in Holmström and Tirole (1993).

<sup>&</sup>lt;sup>4</sup> For Jensen, market monitoring should be replaced by active major shareholders, those who buy out the corporation (such as large institutions or entrepreneurs), for whom the term of their investments is defined in the long run, so they do not value liquidity assets as much as short term investors do. However, Pagano *et al.* (1995) consider that going private increases agency problems since the Stock Market cannot yet provide the necessary discipline.

<sup>&</sup>lt;sup>5</sup> Pagano and Röell (1998) attract our attention to the trade-off that the controlling shareholder has to face between the cost of providing a liquid market and over-monitoring, when this stockholder has to choose whether to go public or not in order to achieve optimal share ownership dispersion. This trade-off between control and liquidity has also been analysed by Bolton and von Thadden (1996, 1998) and Bech (1999).

<sup>&</sup>lt;sup>6</sup> Espinosa et al. (2004) reach no conclusions relative to the effect of the relationship between disclosure, liquidity and volatility.

In this situation, when market prices are no longer a good guide for managers and directors, who prefer to "pay" for their absolute control over the firm with a lack of liquidity, and given that the information costs of remaining on the Stock Exchange remain, the net benefit of being listed would be, *ceteris paribus*, negative.

## IV. Equity financing

Although firms can issue equity capital to finance their investments and growth without being public, trading on a Stock Exchange enables them to raise larger amounts of equity capital for the corporation at a lower cost, not only because of the lower costs of implementing the issue, due to the advertising effect provided by being public, but also because of lower costs of capital.

The issue of equity by listed firms is said to be cheaper than alternative sources. This is because market shares provide benefits to the investor compared with other investments not trading on public markets. Among these benefits are: (i) a higher degree of liquidity; (ii) a lower cost of information about firms; (iii) a lower cost of searching for substitutive financial assets; (iv) a lower cost of diversifying or re-designing portfolios, as a result of the previous points.

All this means that the required rate of return for investors can be lower than when the financial asset belongs to a non-listed firm. These advantages diminish substantially when the firm ceases to issue equity capital as a source of financing for new investments and growth. Among the reasons of deciding which could be a higher preference to finance the firm with debt (corporate bonds or bank loans) because of tax benefits providing interest deductions and, in the case of bank loans, a change to private, instead of public, information that this way of finance involves. Sometimes, however, the reason is that the firm has fewer possibilities of raising funds despite being listed because it lacks interest for investors and is undervalued or not doing its best (Myers and Majluf, 1984).

In relation to the undervaluation hypothesis and information asymmetries, Botosan (1997) finds evidence that firms that are examined by fewer analysts have a negative association between the degree of information given by the firm and the cost of capital. This association is not found for firms followed by a large number of analysts. So, as long as the firm is undervalued, the market cost of capital for the firm may not be as low as could, in theory, be assumed.

On the other hand, a key advantage of financing by issuing equity on a public market is that it increases the possibilities of spreading risk (Jensen, 1989) and the possibility of diversification for the initial owners (Pagano *et al.*, 1995). When a firm goes private there are fewer chances to diversify so easily and major shareholder have to bear a higher cost because of the higher risk of his portfolio or the higher cost of searching for a counterpart when he wishes to liquidate his stake (Pagano and Röell, 1998).

So, if a firm doesn't take advantage of the benefits that the Stock Market provides for public firms in order to raise funds from investors, because of the opportunity costs of tax benefits (which debt makes available), the private (instead of public) information that bank loans involve, or simply because the cost of capital is not lower than other means of financing (due to undervaluation), given that the costs of listing do not depend on how many times a firm "uses" the market to raise funds, and given that the firm has to continue to pay the fees, the net benefits of being listed would be very small. Besides, some firms could try to spread risk and obtain the benefits of diversification through the firm diversification itself.

Figure 1 and Table 10 (in Appendix) sum up the discussion and the related literature.

After this argument, we can present the following conclusions and hypotheses:

1. The likelihood of going private is positively related with long-term bad "news" of firms, since being listed involves publishing information that firms would prefer to keep secret.

- 2. The likelihood of going private is positively related with market undervaluation. Insofar as firms do not meet investors' expectations, fail to overcoming asymmetric information, or are simply ignored by analysts and investors (perhaps because of their small size), permanence on the Stock Market might be too costly.
- 3. The likelihood of going private is negatively related with the degree of liquidity of a firm's stock and positively related with the size of the major shareholder's stake. The larger the stake of the controlling shareholder, the fewer shares will trade on the market, thus reducing the information provided by the prices of those shares. Takeover activity would be the origin of the size of the major shareholders' stakes. So the likelihood of going private is positively related to market pressure for corporate control.
- 4. The likelihood of going private is negatively related with equity issues on the public market. It is an essential function of the Stock Market to mediate between the supply and demand of funds for business investments. If a firm does not take advantage of this source of capital but it has to pay for its permanence on the market (in terms of administrative expenses and the cost of information), the net benefit of being listed will be, at least, less than if the firm raised capital from the market. Undervaluation would also be linked to this hypothesis.

## 4. Sample Characteristics and Variables

To test the above hypotheses, we collected data from a sample of 102 firms: 51 non-financial and non-real estate firms that went private (and never returned to the Stock market) from the Madrid Stock Exchange during the 1991-2003 period, and 51 non-financial and non-real estate firms that remained listed during that period, representing the control sample. Although the number of going private transactions is 276 during the period of analysis, half of them are financial firms (Table 3, 9<sup>th</sup> column), a few are real-estate firms (8), which can be assimilated to investment firms, 35 firms went private as a direct result of a merger, 2 of them were due to bankruptcy and for 42 going private firms there are missing data for some variables for the four years beforehand<sup>7</sup>.

As we have been unable to construct the control sample matching firms in the same industry<sup>8</sup>, because there are insufficient listed companies in each sector, the control sample has been matched both in terms of size (to increase the significance of the analysis about social functions of Stock Market), measured by total assets<sup>9</sup>, and year (to control the economic cycle). Table 4 shows the composition of the total sample by industry and year.

	Number of Go	oing Private Firms	Number of	Listed Firms		
Industry	in th	e sample	in the	sample	Total Sample	
-	n	(%)	n	(%)	n	(%)
Food	6	11.76	4	7.84	10	9.80
Beverages and Tobacco	4	7.84	2	3.92	6	5.88
Textiles, Clothing and Shoes	1	1.96	5	9.80	6	5.88
Paper and Wood	1	1.96	5	9.80	6	5.88
Chemicals and Pharmacy Products	5	9.80	3	5.88	8	7.84
Other Consumer Goods	3	5.88	2	3.92	5	4.90
Petrol and Gas	1	1.96	1	1.96	2	1.96
Mineral, Metal and Transformation	7	13.73	8	15.69	15	14.7
Manuf/Assembly Capital Goods	5	9.80	5	9.80	10	9.80
Construction	2	3.92	1	1.96	3	2.94
Construction Materials	8	15.69	4	7.84	12	11.76

Table 4 SAMPLE COMPOSITION

<sup>7</sup> We consider that the decision of going private must be related to medium-long term variables.

<sup>8</sup> We were unable to find enough firms still listed in 2003 which could have matched going private firms by industry. A sample controlled by industry would comprised 36 firms, and the size of the total sample would have been 72 firms, one third less than with the size control sample.

<sup>&</sup>lt;sup>9</sup> In order to find the firms to make the control sample we have access to an accountancy database, so this is the reason why we use total assets as a measure of size. In any case, total assets and market capitalisation in this sample present a significant high correlation (0.76).

Retailing	2	3.92	0	0.00	2	1.96
Hotels and Leisure	0	0.00	2	3.92	2	1.96
Transport and Distribution	2	3.92	3	5.88	5	4.90
Car Parks and Motorways	2	3.92	1	1.96	3	2.94
Other Market Services	2	3.92	3	5.88	5	4.90
Electronics and Software	0	0.00	2	3.92	2	1.96
Total	51	100.00	51	100.00	102	100,00

## Panel B: by year

Year	Going Private F	irms in the sample	Listed Firms in the control sam		Going Private Firms (non-financial and non real estate)		
Tear	n	(%)	n	(%)	n n	(%)	
1992	1	1.9	1	1.9	9	7.6	
1993	5	9.8	5	9.8	13	11.0	
1994	5	9.8	5	9.8	9	7.6	
1995	3	5.9	3	5.9	8	6.8	
1996	3	5.9	3	5.9	5	4.3	
1997	1	1.9	1	1.9	7	5.9	
1998	8	15.7	8	15.7	13	11.0	
1999	8	15.7	8	15.7	17	14.4	
2000	6	11.8	6	11.8	11	9.3	
2001	2	3.9	2	3.9	5	4.3	
2002	5	9.8	5	9.8	10	8.5	
2003	4	7.9	4	7.9	11	9.3	
Total	51	100	51	100	118	100	

## Independent variables

Several independent variables are considered to test the hypotheses proposed in section 3. All the proxies are computed as a mean over four years prior to the year of going private, except firm's size and control block size (resulting from adding together the five largest control stakes).

- 1. Market information and valuation.
  - a) To test if firms go private because they do not want to reveal poor long term results, we calculate the market returns on shareholders equity for each of the four years prior to the going private year (t) as

follows, and then average these rates. 
$$R_{i,t-j} = \ln\left(\frac{P_{i,t-j} + Div_{i,t-j} + PS_{i,t-j}}{P_{i,t-j-1}}\right), \quad j = 1,2,3,4, P_i \text{ is the}$$

market price of i shares on the last day of each j year,  $Div_i$  are the dividends per share received by shareholders and  $PS_i$  the average market price of preferential subscription rights of capital increases made by i firm. The data source is the Madrid Stock Exchange.

- b) The undervaluation hypothesis due to a fall in investors' expectations about the firm is tested by market to book ratio. This ratio compares the market's valuation of a firm to the value of that firm according to its accounts. Therefore, the higher that ratio is, the higher is the premium the market is paying for that firm because of high expectations about its growth. A low ratio may be a sign of undervaluation or a good investment opportunity. The source of firms' market prices is the Madrid Stock Exchange. Book value data was obtained from audit reports and annual accounts presented to *Comisión Nacional del Mercado de Valores* (CNMV, National Security Exchange Commission, the Spanish supervisory agency).
- c) When undervaluation is due to problems in overcoming information asymmetries, this problem is probably associated to the firm's size (Rao *et al.*, 1995). The natural logarithm of firms' total assets (in real terms) is used as a size proxy variable in the correlation analysis.

- d) Following Espinosa *et al.* (2004), we attempt to proxy disclosure with the average score given by a pool of experts to the quality of information published by companies in the four years prior to going private (published in a financial journal since 1988)<sup>10</sup>.
- e) Finally, we attempt to proxy financial analysts' lack of attention to some firms (or potential undervaluation) with a variable resulting from averaging the number of financial analysts' reports on the firm in the four years prior to going private. This information is obtained from the JCF Quant database, which provides financial analysts' recommendations about listed firms since 1994. Since our sample contains six firms which went private before 1994, and in order to refrain from losing more firms because of a lack of data, we assign a value of zero to both these firms and their size matched non-delisted firms.
- 2. Control vs. Liquidity
  - a) Two ratios are calculated in order to measure liquidity: (i) the degree of liquidity expressed by Annual turnover/Market capitalisation (Bech, 1999) and (ii) number of days trading/number of "tradable" days in the market as indirect indicators. These data are obtained from the Madrid Stock Exchange. The ratios used in the analysis are an average of the ratios in the four year prior to going private.
  - b) Since liquidity is related to the degree of shareholding concentration, we also test the impact of stake size on going private decisions. To obtain these data we have consolidated the control blocks owned by the five largest shareholders the year before going private. The information was obtained from official CNMV registers, SPA (Spanish Shareholder directory) and business newspapers.
  - c) In order to discover whether there is a relationship between insiders' stakes and market for corporate control, a variable is included to identify the impact of previous takeover activity. This variable is the result of adding defensive (tender offers made by insiders to increase their control stake) and offensive takeovers for both samples during the four years before the going private year.
- 3. Equity financing
  - a) We test the importance of being listed in order to raise funds from the market by means of capital increases, by calculating the amount of effective money raised by the firm in an issue, either for cash issues, bond conversions or swap issues in which the firm issues "financial" money (shares) for acquisition purposes and there is an increase in cash because the issue is at a premium. After that, we divide this quantity into that year's market capitalisation to assess the importance of the capital increase. We then average these four-year ratios to obtain the variable to test.
  - b) We also proxied growth prospects using the average of firms' annual increase in net sales four years before going private (Lehn and Poulsen, 1989). This variable enables us to explain why firms do ask market investors for risk capital and to show whether undervaluation is related to this variable.
- 4. Finally, an industry dummy is included to control independent variables by industry specificities.

Since the samples are controlled by year, a year dummy is not included. Table 5 provides a summary of this information.

<sup>&</sup>lt;sup>10</sup> Actualidad Económica magazine uses a set ranging from 9 to 21 variables, according to the year, to classify the quality and quantity of information contained in the annual reports of firms trading on the Madrid Stock Market which voluntarily provide the magazine with the report for evaluation purposes. To construct our variable, we average out these classifications (evaluated on the same basis) without considering that some firms did not provide the report every year. The cases with no classification are scored as zero. This variable represents "transparency" in that, since these are public companies, their annual reports must contain mandatory information, so we consider that the higher the score, the greater and better information they provide.

	Variables	Calculations
	Market return	$\sum_{j=1}^{4} \left( \ln \left( \frac{P_{i,t-j} + Div_{i,t-j} + PS_{i,t-j}}{P_{i,t-j-1}} \right) \right) / 4$
Market	Market to Book Value	$\sum_{j=1}^{4} \left( \frac{Market \ capitalisa \ tion_{i,t-j}}{Book \ Value_{i,t-j}} \right) / 4$
information and	Size	$Ln Total Assets_{i(t-1)}$
valuation	Disclosure	$\sum_{j=1}^{4} \left( "Marks" for Disclosure_{i,t-j} \right) / 4$
	Number of analysts' recommendations	$\sum_{j=1}^{4} (Number of recommendations received_{i,t-j})/4$
	Annual turnover/Market Capitalisation	$\sum_{j=4}^{j=1} \left( \frac{Effective \ trading \ volume \ _{i,t-j}}{Market \ capitalisa \ tion \ _{i,t-j}} \right) / 4$
Control vs.	Days trading/"Tradeable" days	$\sum_{j=1}^{4} \left( \frac{Number of Trading Days_{i,t-j}}{Number of Days Market is Trading_{t-j}} \right) / 4$
Liquidity	Size of Large Shareholders Stakes	$\sum_{n=1}^{5} L \arg est \ shareholdings_{i,n,t-1}$
	Market Pressure for Corporate Control	$\sum_{j=1}^{4} Number of tender offers received_{i,t-j}$
Equity	Volume of Capital raised/Market Capitalisation	$\sum_{j=1}^{4} \left( \frac{Capital \ raised \ in \ issues_{i,t-j}}{Market \ capitalisa \ tion_{i,t-j}} \right) / 4$
financing	Increase in Net Sales	$\sum_{j=1}^{4} \left( \frac{Net \ Sales_{i,t-j} - Net \ Sales_{i,t-j-1}}{Net \ Sales_{i,t-j-1}} \right) / 4$

Table 5 Independent variables

Table 6 shows the descriptive statistics of both samples and provides a first glance at the relative characteristics of the two samples.

	De	scriptiv	e statis	stics''				
	Going Private Firms Sample			Matched Listed Firms Sample				
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
(i) Market information and valuation								
Market return (t-4, t-1)	0.00	0.22	-0.66	0.50	0.03	0.33	-0.55	1.54
Market to Book Value (t-4, t-1)	1.38	1.21	-0.02	7.37	1.45	2.12	0.02	11.02
Size: Ln Total Assets (t-1)	12.56	1.38	9.42	15.12	12.56	1.36	9.51	14.93
Disclosure (t-4, t-1)	4.46	1.32	0.00	6.40	4.72	1.45	0.00	7.20
N. analysts' recomm. (t-4, t-1)	2.39	4.56	0.00	22.5	8.54	9.84	0.00	31.25

Table 6 Descriptive statistics<sup>11</sup>

<sup>11</sup> Variables are computed as mean values of these variables in the four periods prior to the "going private" year, except two variables: firm's size and large shareholder stakes which only take into account the year prior to be delisted.

(ii) Control vs. Liquidity								
Annual turnover/Market Cap. (t-4, t-1)	0.30	0.42	0.01	2.34	1.31	3.73	0.01	26.83
Days trading/"Tradeable" days (t-4, t-1)	0.56	0.36	0.05	1.00	0.76	0.33	0.04	1.00
Size Large Shareholders Stakes (t-1)	0.91	0.11	0.50	0.99	0.58	0.23	0.05	0.98
Market Pressure Corp. Control (t-4, t-1)	0.76	0.71	0.00	3.00	0.12	0.33	0.00	1.00
(iii) Equity Financing								
Volume Capital/Market Cap.(t-4, t-1)	0.03	0.09	0.00	0.53	0.05	0.18	0.00	1.29
Growth: Increase in Net Sales (t-4, t-1)	0.06	0.31	-0.43	1.21	0.41	1.44	-0.42	7.93

Table 7 shows the correlation (Spearman) matrix for variables.

						le 7 on Matrix					
	Market Return	Market- to- Book	Total Assets	Disclosure	Analysts' Rec.	Liquidity: Turnover	Liquidity: Days	Size Stakes	Pressure MCC	Volume issues	$\Delta$ Net Sales
Market											
Return Market-to- Book	-0.228**										
Total Assets	-0.035	0.129									
Disclosure	-0.075	0.184*	0.200**								
Analysts' Rec.	0.221**	0.204**	0.477**	0.243**							
Liquidity: Turnover	-0.091	0.106	0.032	0.192*	0.379***						
Liquidity: Days	-0.081	0.328***	0.558**	0.344**	0.792***	0.533***					
Size Stakes	-0.020	0.243**	0.110	-0.020	-0.279***	-0.437***	-0.283***				
Pressure MCC	-0.053	0.235**	-0.065	0.007	-0.189*	-0.038	-0.181*	0.538***			
Volume issues	-0.012	0.075	0.111	-0.025	0.123	0.198**	0.236**	-0.066	0.039		
∆ Net Sales	0.113	0.067	0.165*	0.038	-0.046	0.029	0.007	0.093	-0.002	0.172*	

\* statistical significance = 0.10

\*\* statistical significance = 0.05

\*\*\* statistical significance = 0.01

Several results can be highlighted:

- The size of the firms, voluntary disclosure (proxied by the quality of the information in firms' annual reports), analysts' recommendations and the liquidity ratio (based on the number of days that the firm has been trading) are positively correlated. We could therefore say that the smaller the firm, the less money is spent on disclosure and fewer analysts examine the firm, since voluntary disclosure is one of their basic tools. Given that analysts' recommendations are followed by investors, liquidity will likewise be affected.
- 2. Market to book value presents a significant positive correlation with the number of analysts' recommendations.
- 3. Market to book value presents a significant negative correlation with market return, so "growth" shares could be more recommended (and demanded) than "value" shares. Furthermore, greater transparency (higher quality of disclosure) is correlated with a higher market to book ratio, consistent with theoretical predictions.
- 4. There is a significant correlation between business growth (measured by the average increase in net sales in the four-year period before going private) and raising funds from the market (measured by the relative volume of funds obtained). None of these variables, the *proxy* of growth (increase in net sales) or the raising of funds, are correlated with market to book value (a *proxy* for investment opportunities).
- 5. There is a high positive correlation between takeover activity during the four years prior to going private and the size of large shareholders' stakes the year before going private. These stakes are negatively related to liquidity.

In order to avoid colinearity:

- 1. Given that the two liquidity ratios are highly correlated and the ratio based on trading days shows a higher correlation with analysts' recommendations, we use the liquidity ratio based on turnover in our multivariate analysis.
- 2. As it seems that the size of large shareholdings (in the year before going private) is highly associated to the four-year period of market pressure for corporate control, and as the former was only a means of explaining the degree of liquidity, it could be more appropriate to test market pressure for corporate control and the selected liquidity variable, as they could provide more information about the decision to go private.

## 5. Results of the empirical analysis

#### 5.1. Univariate results

This analysis is made in order to show the effect of all the proxy variables considered before on going private transactions, since in multivariate analysis we have to select only those which don't present a high correlation among them.

Table 8 shows the results of a univariate comparison between going private and control firms. Due to the non normal distribution of almost all the variables, the non-parametric Wilcoxon (which tests the hypothesis that the variables present the same distribution in the two samples matched on the basis of firm size and year) and Mann-Whitney tests (which tests whether the two samples are from the same population) are used. A very brief review of the results shows that the undervaluation and liquidity hypotheses seem to explain differences between going private firms and public firms. We could assume an important impact of the market on corporate control and the characteristic structure of shareholders in firms in Continental Europe (large stake size), and therefore on the degree of liquidity and going-private transactions. Furthermore, information asymmetries connected with the number of analysts' reports and a fall in investors' expectations could also be behind going private operations.

Variables	Z-statistic (W)	Z-statistic (M-W)
(i) Market information and valuation		
Market return (mean t-4, t-1)	-0.356	-0.017
Market-to-Book Value (mean t-4, t-1)	-1.144	-1.717*
Disclosure (mean t-4, t-1)	-1.190	-0.924
N. analysts' recommendations (mean t-4, t-1)	-3.972***	-3.591***
(ii) Control vs. Liquidity		
Annual turnover/Market Cap. (mean t-4, t-1)	-3.721***	-4.133***
Days trading/"Tradeable" days (mean t-4, t-1)	-3.393***	-3.407***
Size Large Shareholders Stakes (t-1)	-6.102***	-7.245***
Pressure Market Corporate Control (mean t-4, t-1)	-4.697***	-5.510***
(iii) Equity Financing		
Volume Capital/Market Cap. (mean t-4, t-1)	-0.832	-1.141
Increase in Net Sales (mean t-4, t-1)	-1.069	-0.418

Table 8 Univariate analysis

statistical significance = 0.10 statistical significance = 0.05

\*\*\* statistical significance = 0.01

## 5.2. Multivariate analysis:

In order to discover which variables have induced the going private outcome, we use a Logit analysis in which the dependent variable is a dummy which has a value of one for going private firms and zero for the firms in the control sample (public firms). For example, for a going private firm the logistic distribution function considering one independent variable would be:

 $P_i = E(Y = 1 | X_i) = \frac{1}{1 + e^{-(\beta_1 + \beta_2 \cdot X_2)}}$  where  $X_i$  is the independent variable.

In order to solve the problem of the nonlinearity of  $P_i$  in  $X_i$  and B's, this equation is linearised with the following result:

$$L_i = \ln\left(\frac{P_i}{1-P_i}\right) = \beta_1 + \beta_2 \cdot X_i$$
 where  $L_i$  is the Logit.

In our case, the Logit model to be tested can be written as:

$$\begin{split} L_{i} &= \ln\left(\frac{P_{i}}{1-P_{i}}\right) = \beta_{1} + \beta_{2} \cdot Market \quad \text{Re } turn + \beta_{3} \cdot Market \quad to \quad Book \quad Value + \beta_{4} \cdot Disclosure + \\ &+ \beta_{5} \cdot Analysts \quad \text{'Re } commendati \quad ons + \beta_{6} \cdot Liquidity \quad Ratio + \beta_{7} \cdot \Pr \ essure \quad of \quad Market \quad for \quad Corporate \quad Control + \\ &+ \beta_{8} \cdot Equity \quad Issues \quad + \beta_{9} \cdot Firm \quad s \quad growth \quad + \sum_{j=10}^{24} \beta_{j} \cdot Industry_{j} \end{split}$$

The parameters are estimated by maximum likelihood using the Stata statistical package. The maximum likelihood estimators are asymptotically unbiased, efficient and normally distributed.

The results of the estimation are shown in Table 9.

Table	9
Multivariate	Analysis
	Coefficient Estimates ^
Constant	0.9445
CONSTAILT	(0.2919)
Market Return	0.4639
	(0.1208)
Market-to-Book Value	0.0247
Walket-to-book value	(0.0055)
Disclosure	-1.9932
	(0.4880)
Analyst's recommendations	-0.1270**
Analysi's recommendations	(4.9265)
Liquidity ratio	-1.7296**
Equality ratio	(5.5399)
Market Pressure for Corporate Control	3.1374***
market ressure for corporate control	(14.5645)
Equity Issues (Funds raised in the market)	-3.5142*
Equity issues (Funds fulsed in the market)	(3.6659)
Increase in Sales (growth)	-0.0291
	(0.0046)
Ν	102
LR <sup>(a)</sup> (df)	70.149*** (22)
McFadden R <sup>2 (b)</sup>	0.4961
N. of right predictions (% of right predictions)	91 (89.22%)

^ Wald-statistics values in parenthesis

\*, \*\*, \*\*\* indicate statistical significance of 10%, 5% and 1%, respectively.

<sup>(a)</sup> This statistic follows a  $\chi^2_{k-1}$  distribution, where k is the number of the model's parameters, including the independent term.

 $^{\rm (b)}$  McFadden R² = 1 - In L(  $\stackrel{\frown}{\beta}_{LM}$  )/ In L\_0 .

Given that in logit models the Bs do not measure the effect of each variable on the likelihood of the firm to go private, we can only interpret the signs of these coefficients. In our case, the likelihood of a firm to go private is greater the lower the number of (buy or sell) recommendations made by analysts. When firms are "ignored", they gradually become sidelined on the market until they decide to leave (or the market supervisors ask them to). The lack of significance of the Disclosure variable shows that these firms are not ignored because they are more reluctant to reveal business information to investors (and analysts) compared with the companies which remain on the market. However, as the sample is controlled by firm size, a lack of liquidity does have a great deal to do with analysts' lack of attention to some firms. So the lower the company's liquidity on the stock market, the more likely it is to cease trading. Similar results can be found in going private transactions in German market (Jansen and Klezmer, 2003) and Polish Market (Jackowicz and Kowalewski, 2005). Likewise, the greater the market pressure (i.e. the more a specific firm is subject to takeover attempts), the more likely it is that the firm will leave the stock market (this variable showed a high positive correlation with the size of the major shareholders' holdings). The activity of the market aimed at obtaining corporate control appears to be particularly important for explaining why firms leave the Spanish stock market, a result consistent with that of Lehn and Poulsen (1989) and Halpern et al. (1999) for the US and Eddey et al. (1996) for Australia. This does not, however, appear to be supported by empirical evidence in the United Kingdom (Weir and Lang, 2002) although shareholding size is a significant variable on this market (Weir et al., 2005), as it is in the German and Polish cases (Jansen and Klezmer, 2003; Jackowicz and Kowalewski, 2005, respectively) and in an European sample (Thomsen and Vinten, 2006). It would therefore appear that a key variable for remaining on the stock market is having (or wanting to have) sufficient free float.

Also significant (although less so than the previous variables) is the amount of financial assets that the firm has obtained from primary market issues. Indeed, the lower this amount, the more likely the firm is to leave the market.

On the other hand, we also find the variables which are not significant of some interest. In our sample, neither the market rate of return nor the market to book value nor the firm's rate of growth (measured by the mean growth of its net sales) (and no specific sector) help to explain why firms leave the market. These results (non-significance of market rate of return and market to book value) are consistent with those obtained by Jansen and Klezmer (2003) and Jackowicz and Kowalewski (2005). So we cannot assume that these firms are less profitable than those which remain in. Firms do not appear to leave the stock market fleeing from the publicity that the market could provide for their results. In principle, then, the confidentiality that they could be seeking cannot be related to "bad" news about them. Neither are they relatively undervalued firms, unlike in the UK (1998-2000) where the Q ratio is negative and significant (Weir and Lang, 2002), nor do they have a lower growth than that of public companies, although this latter variable is related to going private firms in the US in the 1981-92 period (Rao *et al.*, 1995)<sup>12</sup> and in going private firms of the European sample (Thomsen and Vinten, 2006).

The model's global significance is given by the likelihood ratio (LR) test, used to test the null hypothesis that all the model's coefficients except the constant are equal to 0. To test the explanatory power of the logit model it is used the McFadden's pseudo- $R^2$ , similar to  $R^2$  in a linear regression, and its value is 49,61%. The percentage of correct predictions is also used as an additional measure of goodness of fit, so that if we calculate the estimated likelihood of each firm having left the stock exchange ( $Y_i$ =1), the percentage of times that the observed value of  $Y_i$  is consistent with the prediction is the percentage of correct predictions. In our case, the total percentage of correct predictions is 89.22%.

## 6. Conclusions

Trading on the stock market provides firm with a series of benefits related to the information provided by prices, obtaining capital at a lower cost or diversification of risk, all of which implicate costs. Some of the latter can be quantified, including the administrative costs involved or the expenses associated to the information the

<sup>&</sup>lt;sup>12</sup> To confirm the robustness of these results we test the model for (t-3, t-1) and (t-2, t-1) periods and there is not any change in the sign and significance of the variables.

firm has to provide to the market, whereas others are not easily quantified. These include potential loss of control over the company (associated to the free float on the market), the publicity given to the firm's projects or its economic-financial status.

A firm will not remain on the stock exchange for long if the associated benefits do not exceed the costs. Basing upon the above costs and benefits, a series of hypotheses have been tested for the Spanish market in an attempt to discover the reasons why the Madrid Stock Exchange has gradually lost so many firms. Indeed, in just over twenty years, just over half the non-financial concerns which were trading in the early eighties are no longer public.

The principal results obtained for this sample of public firms and the period analysed (1991-2003) appear to identify two variables (interrelated) as being primarily "responsible" for delistings: the size of the holdings of major shareholders (usually one or two) and the liquidity of the firm's shares. The highly concentrated shareholders structure of delisted firms (an average of 91%) has a direct negative impact on the liquidity of the company's shares since, as these packages are rarely split up in order to maintain their bargaining power, there is a permanent constraint of the free float on the stock market. This could be one of the reasons why analysts cease to be interested in evaluating firms, determining their price and making recommendations about buying and selling their stock. Their reduced liquidity, together with the resulting lack of interest of analysts, could increase the cost of obtaining financial assets on the market. This could explain why financial funds obtained from issues are significantly lower in delisted firms. Finally, market prices would provide less information about firms whose shares are traded less and this is possible the most important loss. The benefits of being listed thus shrink or disappear, while the costs related to administration and information (compulsory and voluntary) remain unaltered, so the net benefit of being listed becomes negative.

The high level of shareholding concentration shows that, as Bech (1999) suggests, liquidity is traded off against control in many of the firms on the Spanish stock market and in other European economies. Control is often obtained through offensive takeovers (made by outsiders) but most through defensive takeovers (by insiders). This is important because if these firms are not taken over by other Stock Market companies, their takeovers will involve them going private themselves. This has a negative impact on the economy since, as Berglöf and Burkart (2003, p.178) say, "if only a small fraction of a country's firms are listed,... then this constitutes a limit to contestability of control in that country's industry". In our case, although going private firms ceased to be quoted in any market, the parent firm of half of them remain quoting, but in its "own" market (which is not bigger than the Madrid Stock Exchange, usually) and few of them in the biggest markets (i.e. NYSE, London SE, and Tokyo SE). So contestability of control would be limited by the much bigger size of companies.

Finally, as the results show, the lack of attention from analysts appears to have an impact on the decision to go private. This variable is highly correlated with the size of firms, and so smaller companies would be more likely to be "ignored" than large ones. As Table 2 shows, delisted firms are not of great quantitative importance (in terms of market capitalisation) on the Madrid Stock Market, so the size variable appears to be significant for explaining delistings, as it is in UK (Weir *et al.*, 2005) and in a sample of European delistings (Thomsen and Vinten, 2006). Therefore a small size could be increasing the relative cost of trading for this type of company. The effort that stock markets make to ensure that these firms benefit from remaining on the stock market or going public is presumably a sign that the relative cost is greater. In 2005, for example, the Madrid Stock Market created the small cap and medium cap indexes in order to attract attention to medium and small capitalization firms. Euronext, also in 2005, created Alternext, the market for small and medium-sized enterprises with special conditions of access to the stock market, what is going to be copied by Spanish Stock Markets in 2007.

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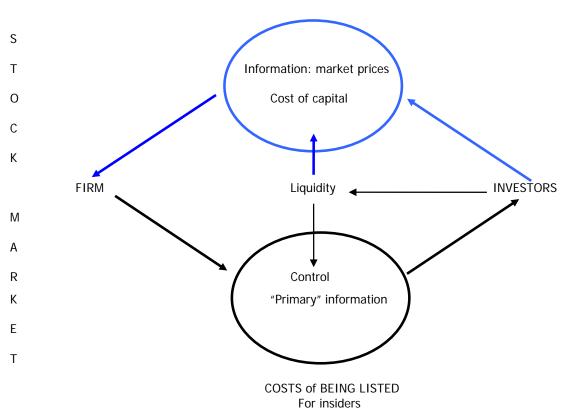
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## APPENDIX

## Figure 1

## BENEFITS and COSTS of BEING LISTED

BENEFITS for the firm



# Table 10Benefits and Costs of Going Private

## **Benefits of Going Private**

For whom	Benefits	Economic Literature
Firm	Lower Administrative Expenses	Jensen (1989) Pagano and Roell (1998) Pagano (1993) DeAngelo <i>et al.</i> (1984) DeAngelo and DeAngelo (1987)
Insiders	More Flexibility for Company Policies Compared with Public Companies Less market monitoring Redistribution of Risk (from shareholders to bond holders) and Wealth (from bondholders to shareholders)	Berle and Means (1932) Holmstrom and Tirole (1993) Lehn and Poulsen (1989) Marais <i>et al.</i> (1989)
Insiders & Firm	Confidentiality Mitigation of agency problem Tax deductibility of interest payments on debt Lower costs in terms of information: - Reduction of the costs derived from asymmetric information - Reduction of annual (mandatory and voluntary) disclosure costs	Campbell (1979) Pagano <i>et al.</i> (1995) Jensen and Meckling (1976) Lehn and Poulsen (1989) Jensen (1989) Holmstrom and Kaplan (2003) Engel <i>et al.</i> (2004)
		Thomsen and Vinten (2006)

# **Costs of Going Private**

For whom	Costs	Economic Literature
Firm	Increases borrowing constrains The company has less discipline	Holmstrom and Tirole (1993)
Insiders	Loss of capacity to spread financial risk Diversification Increases the cost of monitoring Less Power of Bargaining the majority stake	Jensen (1989) Pagano <i>et al.</i> (1995) Pagano and Roell (1998) Zingales (1995)
Insiders & Firm	Loss of a very important source of information: the daily stock price	Rappaport (1990)
Shareholders & Insiders	Loss of liquidity Increases the cost to search for a counterpart when the shareholder wants to liquidate his stake More volatile price The purchase price of reacquiring shares	Berle and Means (1932) Holmstrom and Tirole (1993) Bolton and von Thaden (1996,1998) Bech (1999) Pagano and Roell (1998) Kleinbard (1975)

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