How Does Access to the Public Capital Market Affect Firms' Capital Structure?

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ABSTRACT

Using a large panel dataset of firms in the United Kingdom, I compare and contrast the capital structures and financial policies of public and private firms. Compared to their public counterparts, private firms rely almost exclusively on debt financing, have significantly higher leverage ratios, and tend to avoid external capital markets leading to a greater sensitivity of their capital structures to fluctuations in their cash flows. I then argue that these differences are a manifestation of greater transactions costs faced by private firms, which I use to show that corporate financing, for both private and public firms, is best described by dynamic capital structure theories recognizing the importance of these market frictions.

1 Introduction

Theories of corporate capital structure generate an array of predictions concerning the composition and characteristics of securities that firms issue. To date, empirical studies examining these predictions have focused almost exclusively on their validity in the context of publicly traded firms, in large part, because of data availability. As a result, relatively little is known about the financing behavior of privately held firms. Indeed, a number of seemingly fundamental questions concerning private firms remain unanswered: What characterizes the capital structures of private firms? How do the capital structures and corresponding financial policies of private firms differ from those of their public counterparts? Do existing theories of capital structure (e.g., tradeoff) provide an appropriate description of the financing behavior of private firms? The goal of this paper is to answer these questions by analyzing the financing behavior of privately- and publicly-held firms in the United Kingdom during the period 1993 to 2003, using the Financial Analysis Made Easy (FAME) database.[1]

Though rarely studied, private companies represent a significant portion of the U.K. economy's production base as illustrated in Figure 1, which shows that more than two thirds of corporate assets are owned by private firms. Equally important, private companies outnumber public companies and represent 97.5% of all incorporated entities in the U.K.

[1] To the best of my knowledge, the FAME database has not been used to address the questions raised in this paper. The three (unrelated) papers that I am aware of that have used this database are Yalcin, Bougheas, and Mizen (2002), Mizen and Yalcin (2002), and Ball and Shivakumar (2003). For more details on FAME and the U.K. company law please see section 3.

The differences between private and public firms are striking. Private firms have leverage ratios that are approximately 40% higher, on average, than their public counterparts. A closer look reveals further differences in the maturity structure of debt. The ratio of short term debt to long term debt is 60% for private firms, while the same ratio for public firms is almost half that (35%). An examination of their financing choices reveals similar differences. While equity issues comprise approximately 40% of the incidents in which public firms raise external capital, for private firms this figure is approximately 10%.

These differences reveal an aversion to equity financing by private firms that emanates from the presence of market frictions. Unlike public equity, private equity is a highly illiquid asset, its holder may not be well diversified, and selling it involves high search costs. In addition, for large investments it may simply be impossible to find a private equity investor to finance the entire expenditure. Dynamic capital structure models (Fischer et al. (1989), Goldstein et al. (2001), Hennessy and Whited (2003), Strebulaev (2003)) yield several predictions that hinge on the existence and characteristics of the transaction costs that firms may face when issuing debt and equity.[2] By examining the capital structure and financing decisions of both public and private firms I am able to provide several new tests of these models, which rely on the heterogeneity in transaction costs and capital market access these two sets of firms face.

Theories of capital structure that account for transaction costs predict that the capital structure and financial policies of public and private firms will differ because of two separate

[2] Hennessy and Whited (2003), who also endogenize payout and investment decisions, show that transaction costs are not necessary to reconcile the dynamic trade-off theory with the empirical evidence. However, as in the other models mentioned above, transaction costs have an impact on firms' capital structure and financial policy.

consequences of transaction costs. The first consequence, which I will refer to as a level effect, suggests that private firms will have higher leverage, and a stronger preference for debt issuance relative to an equity issuance. The second consequence, which I will refer to as the sensitivity effect, suggests that private firms will have a more passive financial policy. This effect will make their leverage less sensitive to traditional trade-off theory determinants of capital structure, more sensitive to operating performance, and less quick to adjust to their target.

With respect to the level effect of transaction costs I show that public firms have statistically and economically lower leverage ratios. I then analyze the determinants of debt / equity issuances and repurchases. Consistent with the level effect I find that relative to private firms, public firms are significantly more likely to choose equity relative to the debt alternative. These results are complementary to those found by Faulkender and Petersen (2004), who show that firms without access to public debt markets are more restricted in their ability to borrow and therefore have lower leverage.

I examine the sensitivity effect using three separate tests, and in each case the results are consistent with a significant effect of transaction costs on capital structure. First, I find that the leverage of private firms is more sensitive to operational performance (i.e. their leverage is more strongly negatively related to profitability of the firm), and less sensitive to variables that traditional trade-off theory predicts to be determinants of firms leverage.

Second, I estimate a target adjustment model for leverage, as in Shyam-Sunder and Myers (1999) and Fama and French (2002). Consistent with the predictions of the sensitivity effect, I find that relative to private firms' leverage, public firms' leverage exhibits a significantly higher speed of adjustment. As pointed out in previous papers (e.g., Shyam-Sunder and Myers (1999)

and Chen and Zhao (2004)), mean reversion of leverage in and of itself offers a weak test of the trade-off theory. However, I show that the speed of adjustment for public firms is much larger than that for private firms suggesting that this reversion varies systematically across firms in a manner consistent with theoretical predictions of the trade-off theory; firms with higher adjustment costs (i.e. private) are less likely than firms with lower adjustment costs (i.e. public) to respond to shocks and therefore exhibit greater persistence in their leverage process.

Finally, in the spirit of Helwege and Liang (1996), Hovakimian et al. (2001), and Leary and Roberts (2004b), I examine the financial policies of my sample firms. I find that private firms are more passive with regard to their financing decisions. That is, relative to public firms, private firms are less likely to raise or retire capital versus the alternative of doing nothing. Also consistent with the sensitivity effect, the debt / equity choice of public firms is more in line with the traditional static trade-off theory. That is, relative to private firms, the debt / equity choice (both in issuance and repurchase of capital) of public firms is more sensitive to their deviation from their mean leverage and their profitability as predicted by the target adjustment hypothesis.

In sum, the analysis in this paper provides evidence supporting recent dynamic trade-off theories of capital structure and, in particular, it highlights the important effect that transaction costs have on the capital structure and financial policy of the firm. Recent literature (Leary and Roberts (2004a), Hennessy and Whited (2003), Strebulaev (2003)) has already established that these theories can explain empirical evidence that previously could not be reconciled with the traditional static trade-off theory. In this paper I show that new predictions these theories generate manifest themselves very clearly in a new sample of previously unexplored data of private and public firms.

The rest of the paper proceeds as follows. Section 2 presents the hypotheses. Section 3 provides an overview of the U.K. company law, describes the data sources, and defines the sample. Section 4 provides the empirical analysis. Section 5 summarizes the findings and concludes the paper.

2 Theory and Hypotheses

In this section I present and motivate the empirical hypotheses. As discussed above, I classify the hypotheses into two groups corresponding to the different effects of transaction costs: the level effect and sensitivity effect. The level effect refers to predictions concerning differences in public and private firms' level of leverage and likelihood of choosing debt versus equity financing. The sensitivity effect refers to predictions concerning differences in public and private firms' sensitivity of financial policy to various shocks. In what follows, all predictions concerning differences between public and private firms implicitly assume all other differences are held constant. This issue is addressed in the empirical section below.

2.1 Level Effect

Consider first the implications of the model in Fischer et al. (1989), who analyze explicitly the comparative statics of the recapitalization costs of debt issuance (see Table V in their paper). When the cost of issuing debt increases, firms' leverage ratios decrease. In the case of public and private firms, the primary difference is in the costs of issuing equity, so that a natural extension of the logic behind Fischer et al. (1989) leads to my first hypothesis:

L 1: Private firms have higher debt ratios than public firms.

Consider next the model in Hennessy and Whited (2003). In their paper they show simulation results of their model for the case of proportional and zero floatation costs of issuing equity (see Table IV in their paper). One of the results in their paper is that when equity floatation costs increase the probability of equity issuance decrease. In the case of public and private firms the primary difference is in the costs of issuing equity, therefore my second hypothesis is:

L 2: Private firms are less likely to issue equity than public firms.

2.2 Sensitivity Effect

In Fischer et al. (1989), the existence of transaction costs in debt issuance results in an optimal debt ratio range for the firm, rather than an optimal target debt ratio. Only when the firm's leverage hits a boundary of this range does the firm readjust its capital structure. As the transaction costs of issuing debt increase the width of the optimal debt ratio range increases. This suggests a similar effect when there is an increase in the transaction costs of issuing equity. Since public firms face smaller transaction costs when issuing equity, my next hypothesis is:

S 1: Private firms have a less active financial policy, that is, they are less likely to raise or retire capital.

The fact that private firms are less active in rebalancing their debt ratio implies that leverage will exhibit greater persistence. Therefore my next hypothesis is:

S 2: The leverage of private firms exhibits a lower speed of adjustment.

If public firms are engaged more than private firms in financing activities that are motivated by the desire to rebalance their capital structure, then under the plausible assumption that both

types of firms are equally likely to be engaged in financing activities which are determined by other factors, e.g. financing needs, the proportion of issuances and repurchases of public firms that are designed to rebalance the capital structure of the firm is higher than the same proportion of private firms. Therefore, conditional on being engaged in an issuance or repurchase activity I would expect that the debt / equity choice of public firms will be more in line with the target adjustment hypothesis. Specifically, my next hypothesis is:

S 3: Public firms' financial policy is more in line with the target adjustment hypothesis. That is, their debt / equity choice exhibits a stronger tendency to move leverage towards its target.

Consider next the model in Strebulaev (2003). Using simulated data from his model, he presents standard cross sectional regressions of leverage and cross sectional regressions of leverage at the refinancing point (see Table VI in his paper). His result, as the traditional trade-off theory predicts, is that at the refinancing point leverage increases with profitability and decreases with bankruptcy costs and volatility of cash flow. However, in the standard cross sectional regressions the correlations of leverage deviate from those predicted by the traditional trade-off theory - leverage is negatively related to profitability, and while still negatively related to bankruptcy costs and volatility of cash flows the significance of these relationships decrease. Since public firms face lower transaction costs than private firms when accessing the external capital markets, they are more likely to be closer to the leverage at the refinancing point, suggesting that:

S 4: Private firms' leverage is more sensitive to operational performance (leverage will be more *negatively* related to profitability), and less sensitive to other variables that traditional

trade-off theory predicts to be determinants of the firm's capital structure (e.g. capital expenditures, growth in sales, tangibility of assets).

3 Data

3.1 U.K. Company Law for Private and Public Companies[3]

In the United Kingdom, all limited liability companies are formed by incorporation with the Companies House.[4] They are registered as either public or private companies. Public companies must incorporate 'public limited company' or 'plc' in their name, while private limited liability companies need only include 'limited.' Public companies must have a minimum share capital of 50,000 pounds before they can commence business, but there is no minimum share capital requirement for private companies.[5] The most important distinction between private and public companies is in their ability to raise funds from the general public. A public company has an unrestricted right to offer shares or debentures to the public, but such offerings are prohibited for a private company. Since only public companies can issue shares to the general public, only they are eligible to be listed on a stock exchange. In this paper I define as public only those companies that are listed and private as any company not listed, so I do not distinguish between

[3] The overview of the U.K. company law in this section is mainly based on Ball and Shivakumar (2003). For more details and exact references to the specific sections in the U.K. Companies Act, please refer to that paper.

[4] Companies House is an executive agency of the U.K. Department of Trade and Industry. The main functions of Companies House are to incorporate and dissolve limited companies, examine and store company information delivered under the Companies Act and related legislation, and make this information available to the public. For more information about Companies House: http://www.companieshouse.gov.uk/about/functionsHistory.shtml

[5] For further details about the definition and requirements from public firms in the U.K. see the Companies House website at: http://www.companieshouse.gov.uk/about/gbhtml/gbf1.shtml#two

public unlisted and private unlisted companies, in part, because I am focusing on access to public equity capital markets.

Prior to 1967, only public companies were required to file their financial statements with the Registrar of Companies House. The Companies Act of 1967 requires all companies, private and public, to file their financial statements annually with the Registrar. The 1981 Companies Act modified this provision, allowing "small" and "medium-sized" companies to protect their financial affairs from public scrutiny by reporting only abridged financial statements. Under the Act, to be classified "small" ("medium") a company must fulfill two of the following criteria for two consecutive years: (i) annual turnover may not exceed 2.8 (11.2) million pounds, (ii) book value of total assets may not exceed 1.4 (5.6) million pounds and (iii) number of employees may not exceed 50 (250). Small companies are required to submit only an abbreviated balance sheet (no profit and loss account), and medium companies are required to submit also an abbreviated profit and loss account, which need not disclose sales (in practice the vast majority of the profit and loss accounts do include sales information).

The financial statements of private (public) companies must be filed within ten (seven) months of their fiscal year. Failure to file is a criminal offense. All financial statements must be prepared in accordance with U.K. accounting standards, whether the firm is public or private. They must be audited if annual sales exceed 1,000,000 pounds.[6]

[6] Before June 2000 the threshold was 350,000 pounds.

U.K. tax laws likewise do not discriminate between public and private firms[7]. London Stock Exchange listing rules require additional disclosure for public companies, but the rules do not mandate accounting standards for financial reporting and in particular do not address the calculation of earnings. In all important respects, the U.K. regulatory regimes governing financial reporting for public companies and all but the smallest private companies are equivalent.[8]

3.2 Sources

The data for this paper is obtained from several sources. Balance sheet, income statement, and cash flow statement information come from the Financial Analysis Made Easy (FAME) database. Information on IPOs for firms going public, and public takeovers for firms going private, are obtained from the SDC Platinum database, and I complement this data with Zephyr for the period 1997-2003. I obtain my data for calculating industry market-to-book valuations from Worldscope database. I use the consumer price index from the World Development Indicators (WDI), a World Bank Group database.

Since the use of the FAME database is relatively novel, I provide some further information on it. FAME is a database provided by Bureau van Dijk (BvD), one of Europe's leading

[7] U.K. corporate tax in 2003-04 is 30% on profits above 1,500,000 pounds. For more details on U.K. corporate tax law see section 3.6 in Adam and Shaw (2003). See also the institute of fiscal studies at: http://www.ifs.org.uk/index.shtml.

[8] Although private and public companies in the U.K. face substantially equivalent regulation on auditing, accounting standards, and taxes, Ball and Shivakumar (2003) show that private company financial reporting nevertheless is lower in quality due to different market demand, regulation notwithstanding. Their main result is that timely loss recognition is substantially less prevalent in private companies than in public ones, despite having equivalent regulatory rules. However, it is unlikely that these differences have a systematic effect on the results I present in this paper.

electronic publishers of business information.[9] As described above, under current company legislation in the U.K., companies have a specific period of time from the year-end date in which they must file their accounts (balance sheet, profit and loss, and cash flow statements) at Companies House. Once accounts are filed at Companies House, the accounts are processed and checked, put onto microfiche, and made available to the public. Companies House aims for a turnaround time of seven to 14 days. Jordans, a U.K. leading provider of legal information, collects data from Companies House daily and transfers it from microfiche to their database with a turnaround time of three to five days (this processing may take longer at peak times). [10] Bureau van Dijk collects data from Jordans on a weekly basis and creates the appropriate search indexes to link with the search software. Once these indexes are tested, Bureau van Dijk creates a DVD-ROM and sends it to a manufacturer for duplication. The DVD is then issued to clients. The DVD version used in this paper is November 2003 release 173.0.[11]

There are two main categories of variables in FAME, static and annual. When a variable is annual (primarily accounting data) it means that the values of the variable are reported for each accounting year-end date. FAME includes data for active and dead firms, but it keeps data for not more than ten years for each firm. While companies that have existed long enough and their last year of reported data is before 2002 (mainly firms which ceased to exist) may have accounting data which goes back beyond 1993, the accounting data of active companies dates back at most to 1993. To avoid any selection bias, for my analysis I use only years for which

[9] For more information about BvD: http://www.bvdep.com/

[10] For more information about Jordans and links to other Jordans websites: http://www.jordans.co.uk/

[11] My special thanks to Mitch Gouss from the New York branch of Bureau van Dijk for providing me with the FAME DVD-ROM.

FAME includes all those firms which were registered at the time in Companies House. Thus, my analysis covers the period 1993 to 2003.

When a variable is static (or a "header" variable) it means that only the last year's reported value exists in the database. Unfortunately, some of the interesting variables, such as the company type (private, public unquoted, public quoted, etc.), are static even though in reality they may occasionally change. This fact implies that I must extract the history of the firm related to its listing status from other sources. I use two sources. The first is SDC Platinum, a Thomson Financial database. SDC contains information on multiple deals types including M&A activity, IPOs, going private, and joint ventures. Data for the U.K. is available in SDC for the whole sample period. I identify firms that listed on the LSE by extracting all the IPO deals, and firms that delisted (went private) by extracting all going-private deals. Since SDC does not cover all IPO and going-private deals, I complement its information with data from Zephyr. Zephyr, like FAME, is a database provided by BvD and, like SDC, Zephyr contains information on multiple deals types including M&A activity, IPOs, public to private, and joint ventures. There is no minimum deal value for inclusion and senior researchers at Zephus verify all deals before adding them to Zephyr. Data for the U.K. in Zephyr starts in 1997. For the period 1997 to 2003, Zephyr gives more complete coverage of the IPO and going-private deals. Although the two sources have a large overlap, there are some deals in one source that do not exist in the other, and vice versa.

3.3 Sample

The FAME database includes every incorporated entity in the U.K., including those that never became active. For my analysis I restrict the sample in two ways. First, I include only firm-

year observations that satisfy the auditing requirement. That is, if the accounting period is before June 2000 I include it if the annual sales exceed 350 thousands pounds, if the accounting period is after June 2000 I include it if annual sales exceed one million pounds. Second, I include only medium and large firms, as defined by the Companies House, in at least one year throughout my sample period.[12] There are several reasons I exclude small firms from the sample. First, small firms need to submit only an abridged balance sheet (no profit and loss account), so in most cases it is impossible to include them in the analysis. Second, when dealing with small firms it is quite possible that movements of capital into and out of the firm may be movements of capital between the firm and its owner. Therefore, treating such firms as though they were accessing the "external" capital markets may be misleading. Third, I also study the decision to go public. Since a company that lists its shares on the LSE must have a total market capitalization of no less than 700,000 pounds, and since market capitalization of private firms is unobservable unless they go public, I use the book value size cutoff instead. [13]

I include only the following types of incorporated entities: private limited, public not quoted, public quoted OFEX[14], public AIM[15], and public quoted. I exclude the following company types:

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[12] In my sample selection I use a slightly different definition: Any firm that at least in one year in the sample period had annual sales larger than 2,800,000 pounds and Balance sheet total exceeding 1,400,000 pounds.

[13] For a detailed description of the listing requirements to the LSE see chapter 3, "conditions for listing", in the UKLA source book. This source book can be accessed at: http://www.fsa.gov.uk/pubs/ukla/chapt03-3.pdf. For a brief overview see, "A practical Guide to Listing" from the LSE website, which can be accessed at: http://www.londonstockexchange.com/livecmsattach/1222.pdf

[14] "OFEX" is a market for dealing in unquoted and unlisted securities. It is a market regulated by the FSA (Financial Services Authority) but it is not a Regulated Investment Exchange nor is it a member of the Stock Exchange. Companies on OFEX tend to be smaller than those that apply for membership to AIM, typically seeking to raise capital in the region of 250,000 to 500,000 pounds. It also suits those companies not seeking to raise capital but who want to create a dealing facility for their shareholders without having the burden and expense of meeting the main exchange regulations. The requirements of joining OFEX are less onerous than those of applying to the Official List or AIM." (Source: http://www.grant-thornton.co.uk/pages/services-raising_finance_and_flotations-ofex.html).

assurance company, guarantee (assurance company), guarantee (not companies act), limited liability partnership, not companies act, public investment trust, other, unlimited and guarantee. This selection insures that I am dealing with limited liability companies, to which the Companies Act and capital structure theories are most relevant. In addition, since financial firms such as banks and insurance companies are intrinsically different in the nature of their operations and accounting information, and to avoid capital structures governed by regulation, I exclude any firm that is classified as financial according to its primary U.S. SIC code (6000s SICs). For similar reasons I exclude also the public sector (9000s SICs).

I use the following procedure to define the status of the firm. Firms that were involved in an IPO during my sample period are defined as private before the IPO and public after. Similarly, firms that went private during my sample period are defined as public before the going private deal and private after. I define the status of firms that are not involved in any transition, IPO or going private deal, according to their "Company type" value in FAME. Another issue arises in identifying when a company can be considered publicly traded. Besides the Official List (OL) and the Alternative Investment Market (AIM) on the London Stock Exchange, which is by far the most important one, U.K. companies may list in at least another important domestic exchange, London OFEX, and internationally. The selection criteria I use include IPOs regardless of the exchange on which the offering is made.[16] Similarly, for non-deal firms, I

[15] AIM is the Alternative Investment Market on the London Stock Exchange.

[16] Among the IPOs there were also 264 with missing stock exchange name.

classify firms as quoted if their company type as defined in FAME is equal to "public quoted", "public AIM", and "public OFEX".[17]

3.4 Leverage, Issuance, and Repurchase Definitions

Dynamic trade-off theory models (Fischer et al. (1989), Goldstein et al. (2001), Hennessy and Whited (2003), and Strebulaev (2003)), which are the focus of this paper, generate predictions on market debt ratios. Since market values for private firms are unobservable I measure their leverage using book values. I also use book values to measure leverage of public firms in order to make the results for these two groups comparable. As suggested by previous empirical studies, reliance on book leverage is not a serious limitation. For example, Marsh (1982), Rajan and Zingales (1995), Baker and Wurgler (2002), Leary and Roberts (2004a), and Fama and French (2002), use both measures of leverage in their empirical analysis, and their results are qualitatively unaffected by the type of leverage measure they use.

There are many measures of leverage proposed in the empirical literature, even if limited to leverage ratios measured in book values. These include total liabilities to total assets, the ratio of debt to total assets, total debt to net assets (where net asset are total assets less accounts payable and other liabilities), and more.[18] For my analysis I use short-term debt plus long-term liabilities to total assets.[19]

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[17] Firms listed in OFEX and internationally represent a minority of the listings in my sample (85 and 9 IPOs respectively, less than 10% of all the IPOs).

[18] Rajan and Zingales (1995) contains a discussion of the relative merits and pitfalls of each of these measures (pp 1427-1429).

[19] I use also short term debt plus long term debt to total assets, and the results remain qualitatively similar.

Since I do not have data regarding capital issuance or repurchase, I identify these events from the balance sheet in a manner similar (but not identical) to previous papers, such as Hovakimian et al. (2001), Korajczyk and Levy (2003), Hovakimian (2004a and 2004b), and Leary and Roberts (2004a and 2004b). Since I do not have data on the sale of common and preferred stock in the statement of cash flows,[20] I identify as equity issuance those cases in which issued capital has increased by more than 5%. A firm is defined as issuing (repurchasing) equity between time t-1 and time t if the change in issued capital divided by the starting period issued capital is larger (smaller) than 5% (-5%). The issued capital, a sub-item of the shareholders funds, is the face value of total outstanding shares. Hence, a percentage change in this item represents a percentage sale (or repurchase) of ownership in the company. Similarly, a firm is defined as issuing (retiring) debt between time t-1 and time t if the change in the sum of short term debt and long term liabilities divided by the starting period sum of these items is larger (smaller) than 5% (-5%). A percentage change in this measure represents a percentage in net increase or decrease of debt.[21]

Figure 2 presents the time series of public and private firms' raising and retiring capital activity using the issuance and repurchase definitions stated above. One can already notice two important differences between public and private firms. First, in every category, in almost every year, public firms are more active. That is, the fraction of public firms involved in the external capital markets is larger than that of private firms. Second, as one may expect, the differences are

[20] The only relevant available item in the cash flow statement in FAME is "net financing". In addition, many of the medium-sized firms do not have an available cash flow statement at all.

[21] I use also 3% and 7% cutoff points, and the results remain qualitatively unaffected.

economically most apparent in the equity issuance category. That is, while in most of the years 15%-20% of the public firms issued equity capital, less than 5% of the private firms were engaged in such activity.

3.5 Summary Statistics

Due to data errors and scaling problems, I study a truncated sample that excludes for each accounting variable 0.5% of the observations at each tail. This procedure excludes approximately seven percent of the observations. Data errors are a concern because companies do not file with the Companies House electronically. It is very likely that there are undetected data entry errors, especially in view of the large size and limited circulation of the database. Scaling problems arise from near-zero observations in the total assets.[22] Since a priori it is plausible to assume that the distributions for private and public firms are different, I trim extreme values separately for each of these groups. All values are inflation-adjusted to 2003 pounds, using the U.K. consumer price index.

Table 1 contains summary statistics of my sample. Each panel includes all firm-year observations that belong to the panel classification. Note that at different periods any single firm could belong to a different panel. Reported at the top of each panel is the number of firms that belong to the panel in at least one accounting period. As one may expect, public firms are on average larger, both in terms of their total assets and total sales (turnover), and older. More important though are the striking differences between the capital structure and financial policy of

[22] I repeat the analysis with one percent exclusion criteria for each variable, and my results are qualitatively unaffected.

public and private firms. Among all firm-year observations that private firms raise capital, only 12% are in the equity market. For public firms, the figure is 38.1%. Similar but smaller differences are observed in the repurchase (retirement) activity. Among all firm-year observations that private firms retire capital, only 6.9% are in the equity markets. For public firms, the figure is 13.6%. These differences also translate to large differences in capital structure. Private firms have on average a debt ratio of 36.2%, while public firms have on average debt ratio of only 25.7%. The differences in the financing of private and public firms are not limited only to the debt / equity composition. Private firms' average (median) short term debt as a percentage of total debt is 58.3% (61.2%). The corresponding figures for public firms are only 37.2% and 30.7%. These differences are not only statistically highly significant, but also economically large.

The differences between private and public firms' composition of debt is not the focus of this paper. However, it is worthwhile to note that these differences suggest that by raising a larger fraction of short term debt private firms can provide liquidity to their stakeholders. While public firms can provide liquidity to their stakeholders by raising equity, or potentially even public debt (if they access also to the public bond market), private firms can do so only in the debt market by raising short term debt.

Next, notice the differences between the public and private firms' growth rate of sales and capital expenditure. The average and median growth rates and capital expenditures of public firms are larger than those of private firms. These differences suggest that public firms are either constrained, or in higher need for external capital

In terms of profitability, there does not seem to be a clear difference between private and public firms. While the average return on assets of private firms is larger, their median return on assets is smaller. Looking at liquidity, as measured by the ratio of cash to total assets, public firms have a larger cash base. This is a bit surprising given that economies of scale in cash management predict that public firms will hold less cash as a percentage of their total assets.

Table 2 presents the summary statistics for firms that transited from public to private and from private to public. For each firm the average characteristics are computed before and after the event, and the means and medians across firms are reported. The number of observations reported in each row in this table represents the number of firms that satisfy my inclusion criteria, and have the relevant available data before and after the transition. My dataset includes a total of 1,113 IPOs and 271 going-private deals, of which 1,111 IPOs and 270 going-private deals were matched to the FAME database. It is worthwhile to note that the numbers of IPOs and going private deals in my dataset are comparable to those presented in other papers. For example, for the period 1998 to 2000 Weir and Laing (2000) report 116 public-to-private transactions including financial firms, and 95 transactions excluding financial firms and firms with missing data. In my sample there are 118 public-to-private transactions of non-financial firms for the same period. For the period 1995 to 1999, Khurshed et al. (2004) report 415 initial public offerings of U.K. operating companies on the LSE markets only. For the same period, my sample includes 488 IPOs, of which 14 are on OFEX, six on international exchanges, and 153 with a missing stock exchange name.

Among the going-public firms approximately 40% have their first account in FAME immediately after the IPO. This is because the firm was incorporated just before the IPO as a

holding group. I complement the information for these firms before the IPO event from their IPO prospectus.

Panel A contains the summary statistics of the IPOs and panel B contains the summary statistics of the going private transactions. I leave the detailed discussion on this subset of firms to section 4.5, when I analyze the determinants and consequences of the going-public and going-private transitions. A couple of important points should be highlighted at this stage. First, the differences between private and public firms in capital structure and financial policy we see for the whole sample follow through also to the sub-sample of firms that move from one status to the other. Specifically, after going public (private) there is a decrease (increase) in leverage and increase (decrease) in the proportion of equity issues to total number of issues. Second, the subset of firms that go public have a higher growth rate of sales and capital expenditure before going public than the whole sample of privately held firms (see Table 1). This fact suggests that those firms who need access to external capital are more likely to go public.

4 Results

The summary statistics in the previous section are broadly consistent with the hypotheses laid out in section 2. Private firms have economically and statistically higher debt ratios and when issuing or retiring capital they are less likely to use equity. Private firms that decide to go public have economically and statistically higher growth rates of sales and capital expenditures. The differences observed in the relative use of debt to equity do not necessarily imply that private and public firms have different financial policies. For example, private firms may have higher leverage simply because they have more tangible assets, which in the context of the tradeoff theory will make them more inclined to use debt. Similarly, the higher rate of debt

versus equity issuance observed for private firms may be due to higher profitability, and therefore to rebalance their debt ratio they need to access more debt capital. Furthermore, the summary statistics do not address all of the hypotheses presented earlier. Therefore, it is important to test each of these hypotheses under the ceteris paribus condition.

To test the hypotheses laid out in section 2, I perform several sets of analyses. First, I examine the determinants of leverage. Second, I estimate a target adjustment model for leverage. Third, I examine the determinants of the decision to raise or retire capital in the external capital markets. Fourth, I examine the debt / equity choice of firms that decide to issue or retire capital. Fifth, I examine the decisions to go public and go private.

4.1 Determinants of Leverage

I study the determinants of debt ratios in cross-sectional regressions, as in Rajan and Zingales (1995), Hovakimian et al. (2001), and Fama and French (2002). Table 3 presents the results.[23] In all of the regressions, I include also year and 2-digit SIC code dummies. All variables are scaled by the total assets of the firm to control for scale effects and mitigate heteroskedasticity. In order to limit potential endogeneity issues, I lag the explanatory variables one period. In the first column, I focus on the four factors that the previous literature (see Rajan and Zingales (1995)) identifies as the major determinants of firms' debt ratios: size, tangibility of assets, growth, and profitability. The results that I obtain for the public firms are similar to those reported in earlier work (e.g., Rajan and Zingales (1995)). Size and the proportion of tangible

[23] The results presented in this table are from pooled OLS regressions. Since the dependent variable is censored from both below and above (between zero and one), I also estimate these regressions with a Tobit regression with double censoring as in Hovakimian et al. (2001). The results are almost identical and therefore not reported.

assets are highly significant and positively related to debt ratios, profitability is negatively related to debt ratios, and growth opportunities, as proxied by the ratio of capital expenditure to total assets and growth in sales, is associated with lower debt ratios.

More important are the apparent differences between public and private firms. First, the dummy for the status of the firm is highly significant, suggesting that public firms have lower leverage as predicted in hypothesis L 1. However, since the status of the firm is also interacted with other explanatory variables, more care is needed in estimating the partial effect of the status of the firm. Therefore, I compute the predicted leverage of each private (public) firm and its predicted leverage if it were public (private). In panel C I report the average of these predicted values. The average predicted leverage if firms were private is 31.3% and only 18.0% if firms were public. In almost 98.7% of the firm-year observations, the predicted leverage if the firm is private is larger than the predicted leverage if the firm is public.

The determinants of leverage regressions can help also test hypothesis S 4. As predicted by this hypothesis, Table 3 shows that the leverage of private firms is more sensitive to the firm's profitability, and this difference is highly significant (see panel B). Also consistent with this hypothesis is the relation between leverage and proxies for growth opportunities. While the leverage of public firms is negatively related with capital expenditures and growth of sales, as predicted by the traditional static trade-off theory, the leverage of private firms exhibits the opposite relation with these variables. With respect to the size and tangibility of assets, we do not observe significant differences between the sensitivity of public and private firms' leverage to these variables (see also column II and III and Table 4, to be discussed below). Both types of

firms have higher leverage as they get larger and as the fraction of their tangible assets increase, as predicted by the traditional static trade-off theory.

The results reported in column II and III of Table 3 provide estimates of pooled panel regressions but I now also control for the composition of the firm's debt and its age.[24] I control for the fraction of short term debt because there is a large difference between public and private firms along this dimension (see Table 1). Firm age may affect the debt / equity composition because as a firm ages it becomes known to the market, and this can expand its access to capital (Berger and Udell (1995) and Petersen and Rajan (2002)). The regressions estimates in column II and III show that the results are not affected by the inclusion of these variables.

The results so far may be due to an endogeneity problem that arises because of an omitted variable. I address this problem by estimating the determinants of leverage with fixed effects regressions. This will address any endogeneity problem that arises from an unobserved time invariant firm characteristic. The results of these regressions are reported in columns II and III of Table 4. In column II I include the entire sample, in column III I include only the sub-sample of going public and going private firms. For robustness check, in the first column I also report the results from a between firm regression – that is, for each firm only one observation is included with its average characteristics along the years. As can be seen from this table, the results are very robust. Even when I use only the sub-sample of going public and private firms, which comprises a much smaller sample, the differences with respect to the level effect and sensitivity to profitability remain highly statistically significant.

[24] I also run the equivalent Fama MacBeth regressions and the results are qualitatively and quantitatively very similar.

The results in this sub-section are most closely related to the results reported in Faulkender and Petersen (2004). In that paper, Faulkender and Petersen show the mirror image of the results I reported in this section. Focusing on the determinants of leverage, they show that among publicly listed firms, firms that have access to the public bond market have higher debt ratios, providing further evidence in support of hypothesis L 1. That is, when frictions in the debt (equity) channel are larger, firms exhibit a preference to equity (debt) financing. In this section I show that the presence of market frictions has an effect not only on the level of leverage, as pointed out also by Faulkender and Petersen (2004), but also on its sensitivity to other variables as predicted by recent dynamic trade-off theory models. It would be interesting to see whether the sensitivity effect results I present in this paper hold also in their sample.

4.2 Partial Adjustment Model for Leverage

To test the hypothesis that public firms are more active in rebalancing their leverage, hypothesis S 2, I estimate a partial adjustment model as in Shyam-Sunder and Myers (1999). Here, I add the deficit of a firm as an explanatory variable not as a test of the pecking order theory as in their paper, because, as Chirinko and Singha (2000) show, doing so does not allow for a test of the pecking order hypothesis. Rather, the purpose of the deficit variable is to examine how much of the deficit or surplus is offset by changes in debt, after controlling for the deviation between actual and target leverage. I use the average leverage of the firm in the entire sample period as a proxy for its target leverage.[25] The results are reported in Table 5.

[25] I estimate the target debt ratios of the firms also with the predicted debt ratios from the leverage regressions (Table 3), as in Hovakimian et al. (2001). When I use these estimates instead, the relative differences between public and private firms remain unaffected and still highly statistically significant. However, the coefficients of speed of

The results are in line with the hypothesis that public firms leverage is quicker to adjust to a target (hypothesis S 2). The difference between the speed of adjustment of public and private firms' leverage is economically and statistically highly significant. This difference provides new evidence that firms are engaged in rebalancing their capital structure. As pointed out in previous papers (e.g., Shyam-Sunder and Myers (1999)), mean reversion of leverage may be purely mechanical, and therefore does not provide in and of itself evidence in favor of the trade-off theory. However, if mean reversion of leverage was only a result of serial correlation in capital expenditures and cyclicality in operating earnings, as suggested by Shyam-Sunder and Myers (1999), then we should not expect significant differences between the speed of adjustment of public and private firms' leverage. The fact that the speed of adjustment of public firms is much larger than that of private firms suggests that this reversion in debt ratios is at least partly due to conscious decision-making in the financing policy of firms' management, and that the observed differences are due to differences in transaction costs these two types of firms face.

The differences between the coefficients of the deficit variable of the public and private companies are also highly significant and in the expected direction. Relative to public firms, private firms rely much more on debt in financing their deficit.

4.3 The Decision to Raise or Retire Capital

In this section I test the hypothesis that public firms have a more active financial policy (hypothesis S 1). To this end, I estimate a multinomial logit of the decision to access the external

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adjustment, of both the public and private firms, become smaller. The speed of adjustment for public (private) firms in the debt change regression is 0.202 (0.085) and in the change in debt ratio regression is 0.263 (0.130).

capital markets. The firm can do nothing (the base alternative), retire capital, or raise capital. Like Leary and Roberts (2004b), I control for the firms deficit (the difference between the firm's investment requirements and available cash) and for variables that are supposed to proxy for the cash target of the firm. The results are presented in Table 6.

The coefficient estimates in the multinomial logit tell us whether a change in the explanatory variable increases or decreases the odds ratio of the relevant alternative relative to the base alternative of doing nothing. This analysis yields three results. First, the coefficients are in general in the direction that theory predicts. The deficit is an important determinant of the firm's decision to tap the capital markets. Both public and private firms raise capital when they have a deficit and retire capital when they have a surplus. This result suggests that firms do not raise external capital unless they have to. This result is very supportive of the pecking order of Myers and Majluf (1984). However, it also supports any theory that addresses adverse selection or other transaction costs involved in accessing the external capital market. What distinguishes the pecking order hypothesis of Myers and Majluf (1984) is its prediction on the ordering of debt and equity usage. With respect to size, the larger the firm the less likely it will raise or retire capital, consistent with economies of scale in cash management. The higher are the growth opportunities the firm has, as proxied by the growth in firm's sales, the more likely it will raise capital and less likely it will retire capital. This result is consistent with firms stockpiling cash to fund future investments. Firms with higher levels of net working capital are less likely to raise capital and more likely to retire capital, consistent with firms who have a large trade creditors accounts having higher cash targets.

Second, with the exception of the deficit, the hypothesis that the coefficient on each of the explanatory variables interacted with the public dummy variable is equal to the coefficient on the same variables interacted with the private dummy variable cannot be rejected (see panel B). With respect to the deficit, this variable has the same sign when interacted with the public and private dummy variables. These results show that with respect to the decision to access the capital markets private and public firms exhibit similar sensitivities to the explanatory variables. Indeed, differences in transaction costs do not predict such differences.

Third, and most important, the results are in line with the prediction of hypothesis S 1, which states that due to the higher transaction costs private firms bear when accessing the external capital market they are more passive in their financial policy and less likely to raise or retire capital. The coefficient on the status of the firm (the Public dummy variable) is highly significant, both in the issuance and repurchase decisions. That is, even after controlling for variables that previous literature has found to be relevant in the decision to raise or retire capital, whether a firm is private or public remains an important determinant of these decisions.[26] This result is another manifestation of the results presented in Figure 2, which shows that in almost every calendar year, in every category, public firms are more active than private firms.

[26] Since the status of the firm is also interacted with other explanatory variables we need to be more careful in interpreting the partial effect of the status of the firm on the decision to raise or retire capital. However, with the exception of the effect of deficit, the interaction of the status of the firm with the explanatory variables does not change, and so the partial effect of the status of the firm should not be altered by its effect through other explanatory variables. Indeed, in unreported results I compute also the predicted probabilities of issuing and retiring capital for each private (public) firm and its predicted probabilities of issuing and retiring capital if it were public (private). In approximately 95% of the firm-year observations, the predicted probability of issuing or retiring capital if the firm is public is larger than the predicted probability if the firm is private.

4.4 The Debt / Equity Choice

In this section I address hypotheses L 2 and S 3 which state that in the choice of security type, relative to public firms, private firms will exhibit an aversion to equity and their decision is less in line with the target adjustment hypothesis of the traditional static trade-off theory without transaction costs. To test these hypotheses I estimate two probit models of the debt / equity choice, one for issuance and one for repurchase. I model the debt / equity choice in the spirit of Hovakimian et al. (2001). As in their paper, to test the target adjustment hypothesis I control for profitability during the period the issuance decision is made, since profitability passively moves the firm's leverage from its starting period leverage. According to the target adjustment hypothesis of the static trade-off theory, the larger is the target leverage relative to the starting period leverage and the more profitable the firm is, the more likely the firm will choose debt in the issuance decision and equity in the repurchase decision. I include also year and 2-digit SIC code dummies. The results are reported in Table 7.

The results are very much in line with the prediction of the level and sensitivity effects. First, consistent with the level effect (hypothesis L 2), public firms are more likely to choose equity both in the issuance and repurchase decisions. The public dummy variable is highly positively significant. However, as in the previous reported regressions, one needs to be careful in assessing the partial effect of the status of the firm since the status of the firm is also interacted with other explanatory variables. Therefore, for each private (public) firm I compute the predicted probability it will choose equity and the predicted probability it will choose equity if the firm were public (private). In panel C I report the average of these predicted values. The average predicted probability of issuing (repurchasing) equity if firms were public is 0.150

(0.081) and only 0.065 (0.041) if firms were private. In 99.4% (96.1%) of the firm-year observations, the predicted probability of issuing (repurchasing) equity if the firm is public is larger than the same predicted probability if the firm is private. This result highlights the effect of transaction costs not only on issuance decisions, but also on repurchase decisions. Private firms' managers exhibit an aversion also to retire equity because they are aware of the fact that future equity issuance will entail large transaction costs,

Second, both types of firms behave in accordance with the target adjustment hypothesis of the traditional trade-off theory without transaction costs. In the issuance (repurchase) decision, the probability they choose equity decreases (increases) the smaller is their actual leverage relative to its target, and the higher is their profitability. However, in line with the sensitivity effect (hypothesis S 3), these relations are stronger in the public firms' case. As can be seen in panel B, the magnitude of the coefficients on the variables interacted with the public dummy are statistically significantly larger from the coefficients of the variables interacted with the private dummy variable. This result suggests that public firms exhibit a stronger tendency to bring their leverage to a target in the debt / equity choice.

4.5 Robustness Check

One concern with the analyses so far is that I include firms in my sample regardless of whether they are subsidiaries of other companies and whether their accounts are consolidated or not. Companies with unconsolidated balance sheets report an affiliate's net assets as a long term investment on their balance sheet. Hence these firms would (incorrectly) appear to have lower leverage than otherwise identical firms who report consolidated balance sheets. In addition, in an attempt to window-dress their balance sheet, they may place the debt they take on in less visible

affiliated companies and then borrow it back via inter-firm trade credit. Therefore, to address such concerns, I repeat all the analyses with consolidated accounts of independent companies, and the results remain qualitatively the same.

In this section I also provide another test to provide further evidence that the differences I observe between public and private firms' financial policies are driven by differences in the transaction costs they face when accessing the external capital market. If transaction costs are indeed what drive these differences, then I also expect that the selection to the two groups will not be random. Firms that find it most costly to rely exclusively on internal and debt financing will be willing to bear the costs of going public, which includes the registration, underwriting, and under-pricing cost of an IPO, ongoing administrative costs associated with being public, increased disclosure of inside information, and separation between ownership and control. Therefore the prediction I test is that private firms that face large investment opportunities will be more likely to go public, since these are the firms that will find their dependence on capital in the private market most restrictive and costly.

To test this prediction I study the decision to go public using a probit model as in Pagano et al. (1998). For completeness I also examine the determinants of the decision to go private. The results are presented in Table 8. As expected, all variables that proxy for the firm's investment opportunities, growth in sales, capital expenditure, and median market to book value of publicly listed firms in the firm's industry, are important determinants of the decision to go public.

I also note that the sign of other control variables are in the expected direction. First, older firms are less likely to go public. Pagano et al. (1998) argue that practitioners talk about entrepreneurs' "cultural resistance" to taking their companies public, and that this resistance is

most relevant to very old unlisted firms. Second, larger firms are more likely to go public. Larger firms may suffer less from adverse selection costs that result from the informational asymmetry between the issuers and the less informed investors at the time of the IPO. In addition, while many of the ongoing administrative expenses of publicly listed companies are fixed (see Pagano et al. (1998) and Ritter (1987)) some of the benefits are positively related to the size of the company. For example, the liquidity of a company's shares is increasing in its trading volume and larger firms are more likely to be involved in the future in large investment projects.

With respect to the decision to go private it seems that for firms already public, growth opportunities is not the major determinant of the probability a firm will remain public. Among the three proxies for the growth opportunities only the industry's median market to book value is statistically significant. The only other significant variable is the firm's leverage. Consistent with the agency costs of free cash flow of Jensen (1986), firms with low debt ratios are more likely to be taken private. However, the fact that the cash level is not positively significant and the results with respect to the consequences of the going private transition (to be presented below) are inconsistent with this interpretation, raise doubt as to whether agency costs of free cash flow can explain this result.

In Table 9 I study the consequences of the decision to go public and go private one, two, and three periods (years) after the event. Again, with respect to the decision to go public the results are consistent with the results so far. Going public firms permanently decrease their leverage. In absolute terms, their capital expenditures permanently increase after going private. Relative to their size, capital expenditure does not change significantly, suggesting that firms going public increase their investment intensity in proportion to their growth in size. As in the ex ante analysis

of the decision to go private in Table 8, no clear pattern emerges with respect to this decision. Taking the results in Table 8 and Table 9 together does not provide clear evidence as to what are the economic drivers with respect to the decision to go private.

5 Conclusions

Using a database of virtually all firms in the UK., I examine the capital structure and financial policies of both public and private firms, and analyze whether corporate financial policy is affected by the ability to access the public equity market. I first show that relative to public firms' leverage, private firms' leverage is higher, more sensitive to fluctuations in their cash flows, and less sensitive to variables, such as firm's growth, which are determinants of leverage in the traditional static trade-off theory. I then show that private firms' leverage exhibits a slower speed of adjustment, implying that previously documented mean reversion in public firms' leverage is not mechanical but, rather, a manifestation of one's adjustment speed dictated by transaction costs. I continue with an analysis of firms' financial decisions and show that private firms are more passive in that they are less likely to raise or retire capital in the external capital markets. An examination of firms' debt / equity choice reveals that relative to public firms, private firms are more likely to choose debt, and their decision is less sensitive to their deviation from a target.

I argue that the differences I observe between the capital structures and financial policies of public and private firms are in line with the predictions of recent dynamic trade-off theory models that recognize the presence and impact of transaction costs that firms may face when issuing debt and equity. Recent literature has already established that these theories can explain empirical evidence that previously could not be reconciled with the traditional static trade-off

theory, which ignored the frictions in the supply of capital. In this paper I show that new predictions these theories generate manifest themselves very clearly in a new sample of previously unexplored data of private and public firms.

I examine also the decisions to go public and private. I find that firms are more likely to go public when investment opportunities are large. Consistent with dynamic trade-off models in the presence of transaction costs, this result suggests that private firms are willing to bear the costs of going public when transaction costs in the private capital markets are most inhibiting.

The results of this paper have also cross sectional implication across countries. The differences we observe in the U.K. between public and private firms suggest that in countries that the stock market does not provide enough liquidity, underwriters do not provide certification, and minority rights are not protected, public firms' financial policy will exhibit similar patterns to those of private firms. That is, in such countries, market frictions in the supply of capital may determine firms' capital structures. Such a cross country comparison may be a fruitful avenue for future research.

This paper also sheds light on the going-public decision. Without ruling out other possible reasons suggested as to why firms go public, my results provide strong support for the most natural reason, which is to access new finance.

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Table 1

Entire Sample Summary Statistics

Equity issue (retirement) is a binary variable equal to one if the firm issued (repurchased) equity and zero if issued (retired) debt. Leverage=[(short debt+long liabilities)/Total Assets]. Short to Long short debt/(short debt+long liabilities). $ROA_t=EBIT_t/((TotAssets_t+TotAssets_{t-1})/2)$. Cash is cash and equivalent. $Growth_t=Turnover_t/Turnover_{t-1}$. Age is in years. Currency variables are in thousands of pounds. The first row of each variable is for private firms, second for public firms and third is the difference with its statistical significance. The total number of firms that appear in the private sample is 54798, and in the public sample is 1709.

		# Obs	mean	median
Equity issues	Private	85219	0.120	0.000
	Public	4339	0.381	0.000
	Difference		-0.261***	
Equity retirements	Private	68960	0.069	0.000
	Public	2944	0.136	0.000
	Difference		-0.067***	
Leverage	Private	248903	0.362	0.318
	Public	8674	0.257	0.229
	Difference		0.105***	0.088***
Sht to Long	Private	248898	0.583	0.612
	Public	8674	0.372	0.307
	Difference		0.211***	0.305***
Total Assets	Private	339885	26058	5429
	Public	10080	449621	51991
	Difference		-423562***	-46561***
Turnover (Sales)	Private	345597	32431	9250
	Public	10128	442639	60573
	Difference		-410208***	-51323***
ROA	Private	282329	0.082	0.073
	Public	8864	0.046	0.087
	Difference		0.035***	-0.014***
CAPEX/Total Assets	Private	126726	0.049	0.026
	Public	7834	0.070	0.042
	Difference		-0.021***	-0.016***
Cash/Total Assets	Private	288006	0.108	0.044
	Public	9444	0.123	0.062
	Difference		-0.015***	-0.019***
Growth	Private	287520	1.130	1.041
	Public	9141	1.25	1.06
	Difference		-0.121***	-0.024***
Age	Private	379765	23.334	16.159
	Public	9656	34.666	20.081
	Difference		-11.332***	-3.922***

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 2

Going Public and Going Private Summary Statistics

For each variable (except age), the mean is first calculated for each firm before and after the transition. Then mean and medians across firms are calculated. For age, the mean and medians are just before and after the transition. The number of observations correspond to the number of firms that the variable is observed both before and after the event. The difference column in the means statistics is a matched paired t-test of equality of means, and in the median statistics is the matched paired z-test of equality of medians using Wilcoxon signed-rank test. Equity issue (retirement) is the number of equity issues (repurchases) a firm made divided by its total number of debt and equity issues (retirements). Leverage=[(short debt+long liabilities)/total assets]. Short to Long short debt/(short debt+long liabilities). ROA_t=EBIT$_t$/((Total Assets$_t$+Total Assets$_{t-1}$)/2). Cash is cash and equivalent. $Growth_t$=Turnover$_t$/Turnover$_{t-1}$. Age is in years. Currency variables are in thousands of pounds.

Panel A: Going Public

		means			medians		
	# Obs	Before	After	Difference	Before	After	Difference
Equity issues	148	0.41	0.61	-4.51***	0.33	0.63	-4.25***
Equity retirements	95	0.26	0.20	1.21	0.00	0.00	0.71
Leverage	305	0.38	0.25	8.19***	0.32	0.22	8.07***
Sht to Long	309	0.38	0.40	-0.77	0.32	0.36	-0.97
Total Assets	496	45196	111663	-4.43***	10321	30872	-17.60***
Turnover (Sales)	516	45466	89641	-7.36***	11335	28027	-17.31***
ROA	239	0.12	0.03	6.29***	0.12	0.07	7.26***
CAPEX/Total Assets	348	0.12	0.08	4.01***	0.07	0.06	3.63***
Cash/Total Assets	438	0.13	0.16	-3.31***	0.07	0.10	-3.69***
Growth	381	1.46	1.30	3.93***	1.25	1.19	4.38***
Age	504	9.18	10.18		4.13	5.13	

Panel B: Going Private

		means			medians		
	# Obs	Before	After	Difference	Before	After	Difference
Equity issues	68	0.29	0.08	5.19***	0.23	0.00	4.66***
Equity retirements	41	0.12	0.03	1.89*	0.00	0.00	1.56
Leverage	106	0.23	0.32	-4.04***	0.21	0.28	-3.56***
Sht to Long	105	0.45	0.51	-2.04**	0.43	0.47	-1.64*
Total Assets	123	126834	100528	1.56	43822	39415	0.85
Turnover (Sales)	121	174372	103839	2.12**	50278	46241	1.87*
ROA	111	0.09	0.04	3.43***	0.09	0.05	4.56***
CAPEX/Total Assets	72	0.06	0.06	0.34	0.05	0.03	1.97**
Cash/Total Assets	109	0.09	0.09	0.43	0.05	0.06	1.28
Growth	110	1.14	0.98	3.12***	1.06	0.98	5.18***
Age	174	33.00	34.00		21.94	22.94	

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 3

Determinants of Leverage - Pooled Panel Regressions

Panel A reports the regression coefficients. All coefficient estimates are from pooled panel regressions with heteroscedastic consistent t-stats, corrected for correlation across observations of a given firm, reported in parentheses. The Dependent variable is Financial Leverage = [(short debt+long liabilities) / Total Assets]. Public is a dummy equal to one if the firm is public and zero if private. ROA_t=$EBIT_t$ / ((Total $Assets_t$+Total $Assets_{t-1}$)/2). $Growth_t$=$Turnover_t$/$Turnover_{t-1}$. CPX=CAPEX / Total Assets. Tng=(Tangible+Investments) / Total Assets. Size=log(Total Assets), where Total assets are in thousands of pounds. Short to Long Debt = short debt/(short debt+long liabilities). Age is the log of firm's age in years. All independent variables except the short to long debt ratio and age are lagged one period. Pub X (Priv X) is the variable X interacted with a dummy equal to one (zero) if the firm is public and zero (one) if private. The regressions include also a constant, year dummies, and 2-digit SIC codes dummies (not reported) . Panel B reports for each variable X the p-value of the test Priv X=Pub X. Panel C reports the total partial effect of the status of the firm (the Public / Private status). That is, for each observation of a private (public) firm I compute its predicted leverage, and its predicted leverage if it were public (private). Then I report the means of these predicted value, and the percentage of cases that the predicted value of leverage if the firm is private is bigger than if it is public.

Panel A

	I	II	III
Public	-0.156	-0.109	-0.208
	[5.07]***	[3.04]***	[5.45]***
Priv ROA	-0.479	-0.472	-0.486
	[37.15]***	[36.53]***	[37.82]***
Pub ROA	-0.091	-0.089	-0.111
	[3.09]***	[3.00]***	[3.20]***
Priv growth	0.034	0.033	0.018
	[13.14]***	[13.02]***	[7.56]***
Pub growth	-0.003	-0.003	-0.002
	[1.11]	[1.24]	[0.71]
Priv CPX	0.018	0.019	0.012
	[3.29]***	[3.40]***	[2.60]***
Pub CPX	-0.109	-0.111	-0.118
	[2.80]***	[2.87]***	[2.85]***
Priv Tng	0.151	0.167	0.195
	[19.87]***	[21.09]***	[25.07]***
Pub Tng	0.127	0.124	0.127
	[6.74]***	[6.35]***	[6.26]***
Priv Size	0.017	0.017	0.019
	[12.64]***	[13.07]***	[15.11]***
Pub Size	0.024	0.024	0.023
	[9.90]***	[9.15]***	[8.71]***
Priv Sht to Long Debt		0.038	0.050
		[7.70]***	[10.59]***
Pub Sht to Long Debt		-0.016	-0.020
		[1.04]	[1.26]
Priv Age			-0.051
			[31.24]***
Pub Age			-0.007
			[1.64]
Observations	77386	76864	76467
R-squared	0.14	0.14	0.180

Table 3, *continued*

Panel B			
ROA	0.000***	0.000***	0.000***
Growth	0.000***	0.000***	0.000***
CPX	0.001***	0.001***	0.002***
Tng	0.213	0.033**	0.001***
Size	0.005***	0.026**	0.218
Sht to Long Debt		0.001***	0.000***
Age			0.000***
Panel C			
Predicted Lev^{Priv}	0.313	0.313	0.311
Predicted Lev^{Pub}	0.180	0.179	0.184
Lev^{Priv}>Lev^{Pub}	98.73%	98.65%	97.79%

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4

Determinants of Leverage

In column I the coefficients are estimated based on differences between firm-specific means. Columns II and III are coefficient estimates from a fixed effect model. In column II all firms are included, in column III only firms that change status within the sample period. Reported in parentheses are the t-stats. The Dependent variable is Financial Leverage = [(short debt+long liabilities) / Total Asset]. Public is a dummy equal to one if the firm is public and zero if private. $ROA_t = EBIT_t / ((TotalAssets_t + TotalAssets_{t-1})/2)$. $Growth_t = Turnover_t / Turnover_{t-1}$. CPX=CAPEX/Total Assets. Tng=(Tangible+Investments) / Total Assets. Size=log(Total Assets), where Total assets are in thousands of pounds. Short to Long Debt = short debt/(short debt+long liabilities). Age is the log of firm's age in years. All independent variables except the short to long debt ratio and age are lagged one period. Pub X (Priv X) is the variable X interacted with a dummy equal to one (zero) if the firm is public and zero (one) if private. The regressions include also a constant, year dummies and 2-digit SIC codes dummies (not reported). Panel B reports for each variable X the p-value of the test Priv X=Pub X. Panel C reports the total partial effect of the status of the firm (the Public /Private status). That is, for each observation of a private (public) firm I compute its predicted leverage, and its predicted leverage if it were public (private), where predicted values use the estimate constant for the average fixed effect. Then I report the means of these predicted values, and the percentage of cases that the predicted value of leverage if the firm is private is bigger than if it is public.

Panel A

	I	II	III
Public	-0.2	-0.168	-0.284
	[3.66]***	[3.60]***	[3.08]***
Priv ROA	-0.582	-0.23	-0.335
	[43.56]***	[38.22]***	[5.36]***
Pub ROA	-0.076	-0.077	-0.046
	[1.68]*	[5.49]***	[1.83]*
Priv growth	0.021	0.001	0.022
	[6.53]***	[0.55]	[1.55]
Pub growth	0.003	-0.006	0.002
	[0.32]	[2.54]**	[0.35]
Priv CPX	0.017	0.015	-0.092
	[3.21]***	[4.05]***	[0.96]
Pub CPX	-0.228	0.01	0.072
	[2.39]**	[0.47]	[1.54]
Priv Tng	0.183	0.125	0.262
	[24.99]***	[18.31]***	[4.70]***
Pub Tng	0.166	0.087	0.202
	[5.92]***	[4.14]***	[4.56]***
Priv Size	0.022	0.042	0.021
	[17.68]***	[22.23]***	[2.19]**
Pub Size	0.021	0.038	0.032
	[5.42]***	[10.28]***	[4.49]***
Priv Sht to Long Debt	0.033	0.058	0.008
	[5.89]***	[22.02]***	[0.26]
Pub Sht to Long Debt	-0.021	0.015	0.052
	[0.72]	[1.76]*	[3.04]***
Priv Age	-0.054	-0.035	-0.072
	[32.19]***	[7.16]***	[2.58]***
Pub Age	-0.012	0.018	-0.042
	[1.96]**	[1.72]*	[1.50]
Observations	76467	76467	1883
R-squared	0.21	0.05	0.11

Table 4, *continued*

Panel B			
ROA	0.000***	0.000***	0.000***
Growth	0.032**	0.012**	0.164
CPX	0.01**	0.819	0.113
Tng	0.557	0.078*	0.189
Size	0.863	0.326	0.178
Sht to Long Debt	0.067*	0.000***	0.225
Age	0.000***	0.000***	0.030**
Panel C			
Predicted Lev^{Priv}	0.317	0.310	0.343
Predicted Lev^{Pub}	0.189	0.193	-0.023
Lev^{Priv}>Lev^{Pub}	96.86%	97.53%	99.26%

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5

Target Adjustment Model for Leverage

Panel A reports the regression coefficients from a partial adjustment model for leverage. In the first column the dependent variable is change in the amount of debt normalized by total assets, in the second column the dependent variable is change in debt ratio. Public is a dummy equal to one if the firm is quoted and zero otherwise. Deficit is dividends plus change in fixed assets plus change in working capital minus profits normalized by total assets. TMA Debt is target minus actual debt normalized by total assets. TMA Leverage is the target debt ratio minus actual debt ratio at beginning of period. Pub X (Priv X) is the variable X interacted with a dummy equal to one (zero) if the firm is public and zero (one) if private. Panel B reports for each variable X the p-value of the test Priv X=Pub X. Reported in parentheses are heteroscedastic consistent t-stats, corrected for correlation across observations of a given firm.

Panel A

	Net Debt Change	Change in Debt Ratio
Constant	-0.0031	-0.0061
	[14.55]***	[30.95]***
Public	-0.0005	0.0064
	[0.35]	[7.86]***
Priv Deficit	0.699	0.3021
	[96.28]***	[77.21]***
Pub Deficit	0.1719	0.041
	[5.65]***	[4.54]***
Priv TMA Debt	0.239	
	[37.38]***	
Pub TMA Debt	0.5906	
	[15.62]***	
Priv TMA Leverage		0.4564
		[86.65]***
Pub TMA Leverage		0.6668
		[22.23]***
Observations	210986	192522
R-squared	0.8	0.46

Panel B

Deficit	0.0000***	0.0000***
TMA Debt	0.0000***	
TMA Leverage		0.0000***

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 6

Determinants of the Decision to Issue or Retire Capital

The coefficient estimates are from a multinomial logit. Reported in parentheses are heteroscedastic consistent t-stats, corrected for correlation across observations of a given firm. The dependent variable is zero for firms that take no action, one for firms which retire debt or repurchase equity, and two for firms that issue debt or equity. The base category is no action. Public is a dummy equal to one if the firm is public and zero if private. Deficit is change in fixed assets minus cash and equivalent at the beginning of the period plus profit, divided by total assets. Size is the log of total assets, where total assets are in thousands of pounds. $Growth_t = Turnover_t / Turnover_{t-1}$. Z-score is Altman's Z-score. Net working capital=(Work in Progress+Trade Debtors+ Other Current Assets- Trade Creditors)/Total Assets. Pub X (Priv X) is the variable X interacted with a dummy equal to one (zero) if the firm is public and zero (one) if private. All independent variables except Deficit are lagged one period. The regressions include also a constant, year dummies, and 2-digit SIC codes dummies (not reported). Panel B reports for each variable X the p-value of the test Priv X=Pub X.

Panel A

	Retire/Repurchase	Issue
Public	0.6158	0.6625
	[2.93]***	[3.33]***
Priv Deficit	-2.1507	2.8758
	[32.70]***	[39.29]***
Pub Deficit	-1.4657	4.4978
	[4.92]***	[12.30]***
Priv Size	-0.1267	-0.1025
	[16.40]***	[13.77]***
Pub Size	-0.1465	-0.1056
	[8.08]***	[6.31]***
Priv Growth	-0.0301	0.1175
	[1.20]	[5.10]***
Pub Growth	-0.0383	0.0686
	[0.51]	[1.22]
Priv Z-score	-0.0522	0.2819
	[3.22]***	[14.30]***
Pub Z-score	-0.0683	0.3163
	[0.81]	[3.56]***
Priv Net working Cap.	0.876	-0.2754
	[16.42]***	[5.10]***
Pub Net working Cap.	0.9164	-0.4796
	[3.04]***	[1.68]*
Pseudo R-square	0.0714	
Observations	123825	

Panel B

Deficit	[0.024]**	[0.000]***
Size	[0.274]	[0.853]
Growth	[0.916]	[0.418]
Z-score	[0.850]	[0.705]
Net working Cap.	[0.894]	[0.478]

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 7

The Debt Equity Choice

The coefficient estimates are from a probit model. In the Issuance (Repurchase) column, only firm-year observations in which the firm issued (repurchased/retired) debt or equity are included. In the Issuance (Repurchase) column the dependent variable is equal to one if the firm issued (repurchased) equity and zero if issued (retired) debt. Public is a dummy equal to one if the firm is public and zero otherwise. TMA Leverage is the target debt ratio minus actual debt ratio at beginning of period. $ROA_t = EBIT_t / ((TotAssets_t + TotAssets_{t-1}) / 2)$. The regression includes also year and 2-digit SIC codes dummies (not reported). Pub X (Priv X) is the variable X interacted with a dummy equal to one (zero) if the firm is public and zero (one) if private. Panel B reports for each variable X the p-value of the test Priv X=Pub X. Reported in parentheses are the heteroscedastic consistent t-stats, corrected for correlation across observations of a given firm. Panel C reports the total partial effect of the status of the firm (the Public /Private status). That is, for each observation of a private (public) firm I compute its predicted probability of issuing equity and its predicted probability of issuing equity if it were public (private). Then I report the means of these predicted values, and the percentage of observations that the predicted probability of issuing equity if the firm is public is bigger than if it is private.

Panel A		
	Issuance	Repurchase
Constant	-1.4068	-0.5927
	[3.63]***	[0.79]
Public	0.5436	0.3363
	[16.66]***	[7.50]***
Priv TMA Leverage	-3.5840	3.1088
	[46.34]***	[36.21]***
Pub TMA Leverage	-4.6875	4.3946
	[8.36]***	[8.14]***
Priv ROA	-0.7030	0.2752
	[10.84]***	[3.75]***
Pub ROA	-1.1441	0.2233
	[6.29]***	[1.08]
Pseudo R-square	0.1477	0.0746
Observations	81845	68587
Panel B		
TMA Leverage	[0.051]*	[0.018]**
ROA	[0.022]**	[0.813]
Panel C		
Predicted Pr^{Pub}[Equity]	0.150	0.081
Predicted Pr^{Priv}[Equity]	0.065	0.041
Pr^{Priv}[Equity]>Pr^{Priv}[Equity]	99.4%	96.1%

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 8

Determinants of the Going Public and Going Private Decisions

The coefficients estimates are from a probit model. The Go Public (Go Private) column comprises only firm-year observations of private (public) firms, and the dependent variable is the status of the firm one period ahead. That is, in the Go Public (Go Private) column the dependent variable is equal to one if the firm is public (private) one period ahead and zero otherwise. Age is the log of age in years. Size is the log of total assets in thousands of pounds. $ROA_t = EBIT_t/((\text{Total Assets}_t + \text{Total Assets}_{t-1})/2)$. $\text{Growth}_t = \text{Turnover}_t/\text{Turnover}_{t-1}$. MTB is the median market-to-book value of equity of listed firms on the LSE in the same industry. CPX is capital expenditure over total assets. Cash is cash and equivalent divided by total assets. Leverage=[(short debt+long liabilities)/Total Assets]. The regression also includes a constant term, year dummies and 2-digit SIC code dummies (not reported). In brackets are heteroscedastic consistent t-statistics, corrected for correlation across observations of a given firm.

	Go Public	**Go Private**
Age	-0.269	-0.023
	[8.16]***	[0.60]
Size	0.196	-0.032
	[8.82]***	[1.38]
ROA	0.781	-0.143
	[2.35]**	[0.61]
Growth	0.122	-0.237
	[4.05]***	[1.38]
MTB	0.102	-0.142
	[2.09]**	[1.90]*
CPX	0.164	0.235
	[4.55]***	[0.49]
Cash	-0.145	-0.518
	[0.55]	[1.40]
Leverage	-0.294	-0.611
	[1.68]*	[2.39]**
Pseudo R-square	0.172	0.083
Observations	56545	4511

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 9

Effects of Going Public and Going Private

In this table, t+1 (t) is the period immediately after (before) going public or private. Leverage=[(short debt+long liabilities)/Total Assets]. Assets are the total assets of the firm. CPX=CAPEX/Total Assets. $Growth_t$=$Turnover_t$/$Turnover_{t-1}$. ROA_t=$EBIT_t$/((TotAssets$_t$+TotAssets$_{t-1}$)/2). Cash is cash and equivalent. Currency variables are in thousands of pounds. Mean test is the t-stat of the paired test of the hypothesis that var1 - var2 has a mean of zero. N is the number of observations that var1>var2. Rank test is the z-stat of the hypothesis that var1-var2 has a median of zero using the Wilcoxon matched-pairs signed-ranks test.

Panel A - Going Public

Var1	Var2	mean Var1	mean Var2	Mean test	N	Rank test	#Obs
Total Assets $_{t+1}$	Total Assets $_t$	64821	47169	[5.56]***	433	[16.12]***	480
Total Assets $_{t+2}$	Total Assets $_t$	75861	45883	[5.77]***	405	[15.89]***	445
Total Assets $_{t+3}$	Total Assets $_t$	79989	42999	[6.14]***	356	[15.15]***	392
$Leverage_{t+1}$	$Leverage_t$	0.21	0.38	[-10.06]***	47	[-10.58]***	262
$Leverage_{t+2}$	$Leverage_t$	0.25	0.38	[-7.15]***	65	[-7.66]***	235
$Leverage_{t+3}$	$Leverage_t$	0.28	0.37	[-4.19]***	73	[-4.48]***	202
$CAPEX_{t+1}$	$CAPEX_t$	6478	3624	[2.77]***	216	[7.71]***	308
$CAPEX_{t+2}$	$CAPEX_t$	6609	3221	[2.58]***	218	[7.92]***	302
$CAPEX_{t+3}$	$CAPEX_t$	7924	3395	[1.94]*	181	[6.71]***	260
$(CPX)_{t+1}$	$(CPX)_t$	0.10	0.12	[-1.39]	141	[-1.03]	298
$(CPX)_{t+2}$	$(CPX)_t$	0.09	0.11	[-1.10]	148	[-0.89]	291
$(CPX)_{t+3}$	$(CPX)_t$	0.08	0.10	[-1.38]	103	[-3.30]***	250
$Growth_{t+1}$	$Growth_t$	1.48	1.60	[-1.69]*	183	[-3.40]***	419
$Growth_{t+2}$	$Growth_t$	1.56	1.58	[-0.27]	179	[-1.00]	374
$Growth_{t+3}$	$Growth_t$	1.37	1.51	[-1.58]	129	[-3.73]***	318
ROA_{t+1}	ROA_t	0.09	0.11	[-2.03]**	97	[-2.36]**	227
ROA_{t+2}	ROA_t	0.06	0.12	[-4.77]***	81	[-4.34]***	204
ROA_{t+3}	ROA_t	0.03	0.13	[-5.72]***	60	[-5.57]***	179
$Cash_{t+1}$	$Cash_t$	9635	3123	[5.11]***	322	[11.60]***	423
$Cash_{t+2}$	$Cash_t$	9399	3289	[3.19]***	296	[9.98]***	390
$Cash_{t+3}$	$Cash_t$	7863	3200	[4.60]***	252	[8.89]***	341
$(Cash/Assets)_{t+1}$	$(Cash/Assets)_t$	0.22	0.13	[8.03]***	271	[8.19]***	408
$(Cash/Assets)_{t+2}$	$(Cash/Assets)_t$	0.15	0.14	[1.32]	211	[2.01]**	378
$(Cash/Assets)_{t+3}$	$(Cash/Assets)_t$	0.14	0.14	[-0.27]	172	[0.04]	328

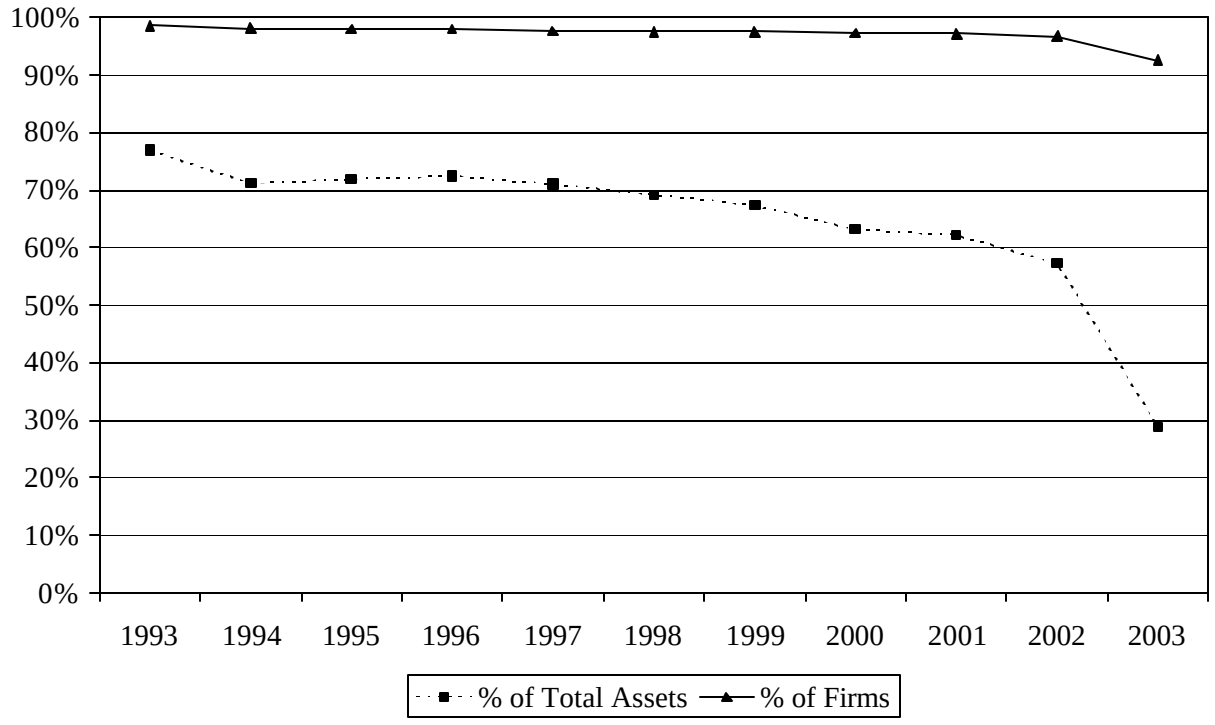
Table 9, *continued*

Panel B - Going Private							
Var1	**Var2**	**mean Var1**	**mean Var2**	**Mean test**	**N**	**Rank test**	**#Obs**
Total Assets $_{t+1}$	Total Assets $_t$	109211	119027	[-1.43]	49	[-1.61]	117
Total Assets $_{t+2}$	Total Assets $_t$	109260	126384	[-1.65]*	39	[-1.38]	80
Total Assets $_{t+3}$	Total Assets $_t$	79314	109701	[-1.81]*	20	[-2.00]**	55
$Leverage_{t+1}$	$Leverage_t$	0.30	0.25	[3.28]***	65	[3.31]***	95
$Leverage_{t+2}$	$Leverage_t$	0.33	0.25	[2.39]**	35	[2.02]**	59
$Leverage_{t+3}$	$Leverage_t$	0.36	0.27	[2.37]**	23	[2.26]**	36
$CAPEX_{t+1}$	$CAPEX_t$	5705	7253	[-1.38]	23	[-2.07]**	66
$CAPEX_{t+2}$	$CAPEX_t$	5601	8016	[-1.44]	12	[-1.80]*	34
$CAPEX_{t+3}$	$CAPEX_t$	4306	7394	[-0.74]	10	[0.54]	18
$(CPX)_{t+1}$	$(CPX)_t$	0.05	0.05	[0.09]	24	[-1.61]	66
$(CPX)_{t+2}$	$(CPX)_t$	0.03	0.04	[-0.75]	13	[-1.53]	34
$(CPX)_{t+3}$	$(CPX)_t$	0.07	0.03	[1.57]	11	[1.28]	18
$Growth_{t+1}$	$Growth_t$	0.94	1.13	[-3.37]***	33	[-4.23]***	107
$Growth_{t+2}$	$Growth_t$	1.06	1.11	[-0.42]	29	[-2.35]**	74
$Growth_{t+3}$	$Growth_t$	0.99	1.08	[-1.21]	20	[-1.52]	50
ROA_{t+1}	ROA_t	0.03	0.06	[-2.07]**	35	[-3.20]***	105
ROA_{t+2}	ROA_t	0.06	0.06	[-0.19]	35	[-0.10]	71
ROA_{t+3}	ROA_t	0.04	0.06	[-0.77]	21	[-1.08]	47
$Cash_{t+1}$	$Cash_t$	5351	4936	[0.63]	49	[0.10]	97
$Cash_{t+2}$	$Cash_t$	6963	10322	[-1.17]	36	[-0.24]	68
$Cash_{t+3}$	$Cash_t$	5521	8126	[-1.06]	23	[-0.31]	43
$(Cash/Assets)_{t+1}$	$(Cash/Assets)_t$	0.09	0.08	[0.19]	50	[0.24]	97
$(Cash/Assets)_{t+2}$	$(Cash/Assets)_t$	0.08	0.09	[-0.16]	35	[0.37]	68
$(Cash/Assets)_{t+3}$	$(Cash/Assets)_t$	0.10	0.08	[0.83]	20	[0.13]	43

* significant at 10%; ** significant at 5%; *** significant at 1%

Figure 1

Portion of Private Firms



Notes:

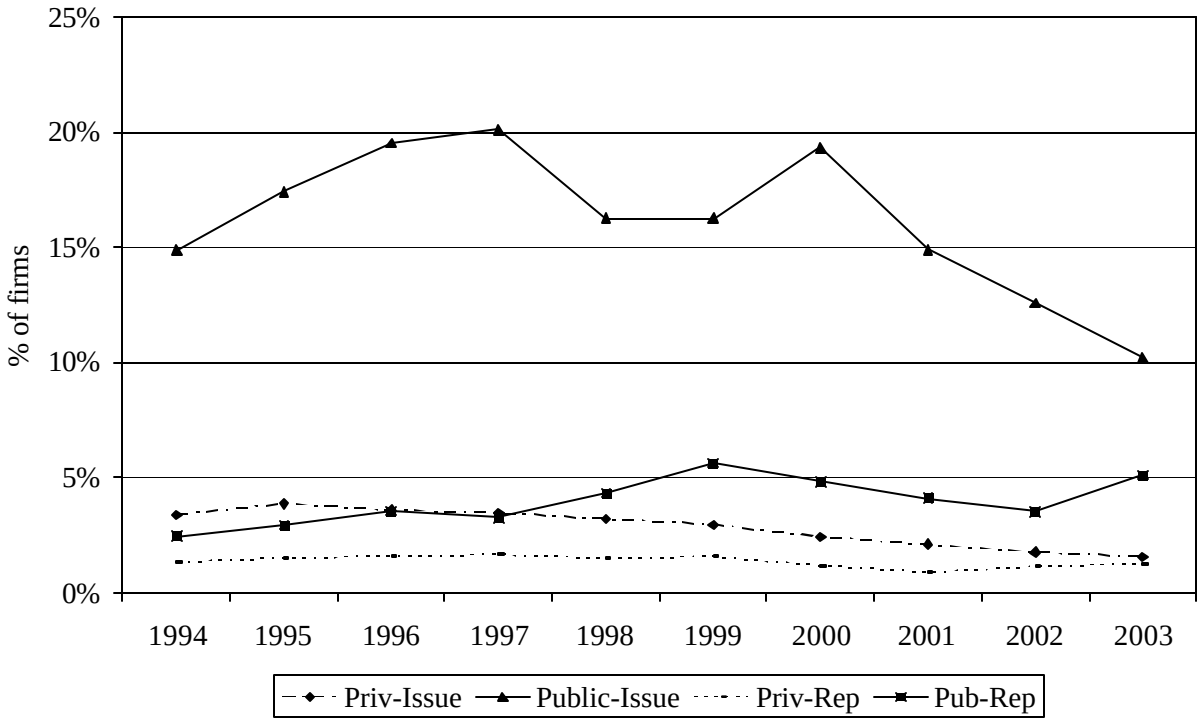
- The figure shows the percent of private firms and the percent of privately held asset. The percent of privately held assets is the sum of all private firms' total assets divided by the sum of private and public firm' total assets for each calendar year.

- The share of private firms (in both measures) is biased downwards in 2003 and upwards in 1993. This is so because public firms are required to provide their accounts at the Companies House in a timelier manner. The DVD version of the FAME database used in this paper is from November 2003, therefore public firms are over represented in the 2003 calendar year. In addition, Bureau van Dijk keeps no more than 10 accounting statements for each firm, therefore public firms are underrepresented in the 1993 calendar year.

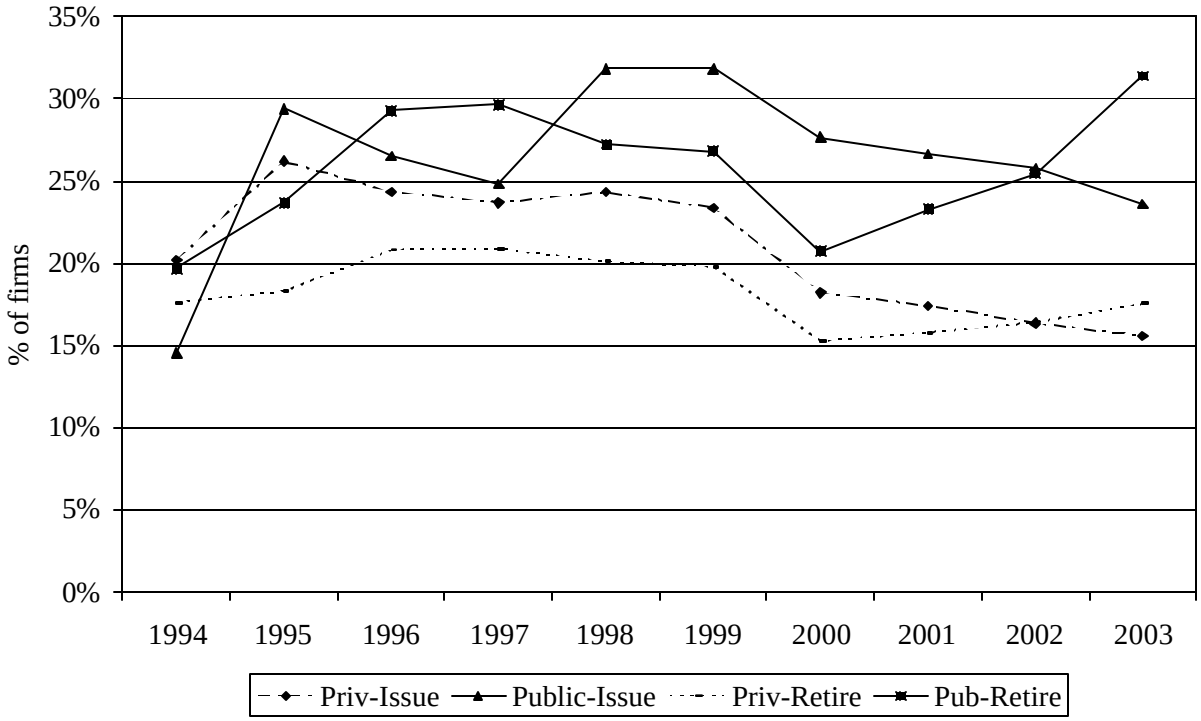
- The data for this figure includes all firms in my final sample (see section 3.3), and so it ignores potential cross ownerships (e.g. parent and subsidiary), and exclude small firms.

Figure 2

Panel A: Equity Activity



Panel B: Debt Activity



Notes:
- Panel A (B) shows for each calendar year the percentage of private and public firms that were involved in equity (debt) issuance or repurchase / retirement activity.