AN EMPIRICAL EXAMINATION OF THE CHARACTERISTICS OF GOING PRIVATE: AUSTRALIAN EVIDENCE

Daniel Beaver¹

Supervisors: Dr. J. Wickramanayake and Associate Professor M. Veeraraghavan

DEPARTMENT OF ACCOUNTING AND FINANCE
MONASH UNIVERSITY

ABSTRACT

This research assesses the characteristics of firms going private in Australia between 1990-2007. The torrent of private equity funds into the Australian market has caused a mergers and acquisitions frenzy. Shareholders involved in going-private transactions can receive substantial takeover premiums. Identifying companies that are likely to go private could be very lucrative to investors. The Australian Government has become increasingly concerned about the impact private equity is having on the economy. This research will analyse seven years of un-researched Australian data and will test structural changes in the market for corporate control. The thesis asks three main questions. They are (a) Does Jensen’s free cash flow hypothesis hold in the Australian market? Does going-private occur as a takeover defence? And (c) Does weak corporate governance influence the decision to go private? From these three research questions, six hypotheses have been formed. Both logit testing and ordinary least squares regression on takeover premiums will be used to determine which characteristics drive the decision to go private. The outcomes of this research will be of benefit to policy makers, investors, academics, and industry leaders.

¹ Email: dea4@student.monash.edu
1. **Introduction and Motivations**

Australia's corporate mergers and acquisitions (M&A) market has enjoyed strong growth in 2006, almost doubling its total deal value from the same period in 2005. Private equity funded transactions have seen an increase in both size and value of transactions (International Financial Law Review, 2006). Going-private transactions have emerged as a new and important corporate restructuring mechanism in M&A’s and have gained increased popularity among deal makers (Evans, Poa & Rath, 2005). The purpose of this research is to examine the characteristics that underlie the decision by Australian firms to go private.

A going-private transaction is defined as one that converts a free-standing, publicly traded corporation into a privately held corporation (Lehn & Poulsen, 1989). The most common way to go private is through a leveraged buyout (LBO). A LBO takes place when a small group of investors use a high level of debt financing. This may be performed by an outside firm such as a buyout specialist or by existing management. The latter method is considered a management buyout (MBO). Once all of the equity in the company is purchased, the company is subsequently de-listed and restructured.

Over the past year there has been an increase in investment activity by private equity firms in Australia. The value of private equity transactions announced and endorsed by the target company’s board surging to $26 billion, up from the average of around $2 billion over the previous five years (Reserve Bank of Australia, 2007 p 59). The review suggests that rise in private equity transactions in Australia has been driven by favourable macroeconomic conditions and low global interest rates of recent years.

Senator Andrew Murray has established a Senate inquiry into the private equity industry. The inquiry’s purpose is to evaluate whether business is being helped or hindered by a series of big buyouts (Crowe, 2007). There are generally two schools of thought around private equity in public policy. One school of thought believes that overly generous tax laws create a wealth transfer. Industry Minister Ian Macfarlane ushered in a new regime for private equity in 2002 to encourage foreign capital into local funds. The sector also won from an easing of capital gains tax rules on foreign investors in 2006. The other school of thought argues that private equity increases efficiency and is a necessary component in corporate restructuring and this in turn benefits the Australian economy. The Australian landscape for going-private transactions has markedly changed since the research of Evans, et al. (2005).

‘The publicly held corporation, the main engine of economic progress in the United States for a century, has outlived its usefulness in many sectors of the economy and is being eclipsed’ (Jensen, 1991). This statement at the peak of the 80’s buyout wave proved to be premature. However, current buyout activity in Australia has revived speculation about the future of public corporation. Is history repeating itself? Jensen (1991) cited the central weakness and source of waste in the public corporation as being the conflict between shareholders and managers over the payout of free cash flow\(^2\). The public corporation is not suitable in industries where long term growth is slow, where internally generated funds outstrip the opportunities to invest them profitably. The role of debt helps to reduce the waste of excessive free cash flow.

Investors are becoming more concerned about directors acting both as a buyer and seller of a company. This is evident in the recent failed management buyout of Alinta and the leveraged

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\(^2\) Cash flow in excess of that required to fund all investment projects with positive net present values when discounted at the relevant cost of capital.
buyout of Qantas. Is this a result of poor corporate governance? An interesting area of research is the influence of governance characteristics on the decision to go private. This study will investigate whether certain board composition (number of non-executive to executive directors) will affect the likelihood of going private.

The market for corporate control has significantly changed since the research of Evans et al (2005). Changes to foreign ownership laws in 2002 and the easing of capital gains tax for foreign investors in 2006 has altered the Australian private equity industry. This research will analyse seven years of un-researched Australian data and will test structural changes in the market for corporate control. The thesis asks three main questions. They are (a) Does Jensen’s free cash flow hypothesis hold in the Australian market? Does going-private occur as a takeover defence? And (c) Does weak corporate governance influence the decision to go private? From these three research questions, six hypotheses have been formed.

To our knowledge only two prior studies exist on the characteristics of going private in Australia. Eddey, et al (1996) report some evidence to conclude that going private transactions in Australia may be a response to an actual or perceived threat of a takeover bid. However, Eddey, et al. (1996) could not find evidence to support the free cash flow hypothesis\(^3\) or the asymmetrical information hypothesis\(^4\). More recently, Evans, et al.(2005) find that the most important factors which can distinguish going private firms are leverage, growth rates (changes in asset base), liquidity of the firm before the buyout and the presence of take over threats. There are numerous gaps in existing Australian research. Previous empirical literature has shown that the characteristics of going private firms change over time (Halpern, Kieschnick & Rotenberg, 1999). This proposed research would use sample data from 1990 to 2007, further extending prior Australian studies past 1999.

The remainder of this research proposal will be set out as follows. Section 2 provides a brief literature review of empirical research, while section 3 identifies the hypotheses to be investigated. Section 4 explains the methodology, in particular the data collection process and tests to be undertaken. Section 5 outlines the expected.

2. LITERATURE REVIEW

Prior research has focused on the motivations for going private. There are large gains to companies that are no longer publicly listed. These large gains are evident in the share price jumps on the going private announcement. For instance, Lehn & Poulsen (1989) found the average net-of-market stock price reaction to the announcement for 92 leveraged buyouts was slightly more than 20%, measured over a period of 20 days before the announcement to 20 after the announcement. The findings of Travlos & Cornett (1993) indicate that going private buyouts generate large benefits to the firms’ owners by eliminating the agency costs prevailing in the firms prior to going private. The results of Kaplan (1989b) suggest that tax benefits are an important source of the wealth gains in management buyouts. The large takeover premiums received by shareholders may also be the result of a direct wealth transfer. Asquith & Wizman (1990) find that pre-buyout bondholders, on average, suffer statistically significant wealth losses in leveraged buyouts. Kaplan (1989a) and Muscarella & Vetsuytens (1990) find evidence that gains in going private occur as the result of changes in the governance structure towards more concentrated residual claims. The new organizational structure is more efficient than its publicly listed

\(^3\) Going private occurs because additional debt increases efficiency by forcing organizations with large cash flows but few high-return investment projects to disgorge cash to investors. (see Jensen 1986).

\(^4\) Management have inside knowledge about the value of the company and will act opportunistically. (see DeAngelo, DeAngelo and Rice 1984).
predecessor. Empirical studies by DeAngelo, DeAngelo & Rice (1984), Kaplan (1989b), Lehn & Poulsen (1989), Asquith & Wizman (1990), Muscarella & Vetsuyens (1990), Smith (1990) and Travlos & Cornett (1993) have identified the source of these gains into six categories: reduced transaction costs, tax benefits, management incentives and agency cost effects, wealth transfer effects, asymmetrical information and under pricing and efficiency considerations.

2.1 Public Company Costs
DeAngelo, et al. (1984) document that going private generates gains through the reductions in registration, listing and other shareholder servicing costs. The savings in shareholder servicing costs such as printing and mailing out of financial statements alone can be significant. There are also the costs that are incurred due to ASX listing requirements such as auditing, accounting and legal fees. Gleason, Payne & Wiggenhorn (2007) found that many companies decided to go private to avoid the higher costs of being public post Sarbanes – Oxley. A survey by Block (2004) of 110 US companies that went private between 2001 and 2003 had similar results to Gleason et al. (2007). However, Travlos & Cornett (1993) study using US data for the period from 1975-1983 with a sample of 56 firms conclude that shareholder’s servicing costs are not explanatory factors of the documented stock price reactions.

2.2 Tax Benefits
Tax benefits occur due to the nature of leverage buyouts. The increase in debt causes a higher tax deduction on interest payments. The deductions on interest payments creates a tax shield. Kaplan (1989b) shows the potential value of tax benefits to going private firms. Depending on the measure used, the median value of the tax benefits for the sample varies from a lower bound estimate of 21% to an upper bound estimate of 142.6% of the premium paid to pre-buyout shareholders (Kaplan, 1989b). Lehn & Poulsen’s (1989) findings are also consistent with Kaplan (1989b). However, these two papers contradict Travlos & Cornett (1993). Travlos & Cornett (1993) find that abnormal returns are not the result of a change in capital structure but rather a reduction in agency costs. Opler & Titman (1993) find that a large percentage of LBO firms use more debt than is needed to eliminate taxes. This result suggests that reducing a firm’s tax liability to zero is not the only motivating factor for increasing a firm’s leverage.

2.3 Management Incentives and Agency Cost Effects
Going private transactions can mitigate the conflict of interest by concentrating residual claims among management or an outside monitor (Lehn & Poulsen, 1989). Firstly, management’s residual claim interest can increase via a leveraged buyout through increased stock ownership and indirectly, through employment agreements that tie managerial income more closely to firm profitability (DeAngelo, et al, 1984). Secondly, buyout specialists often take up positions on the board. Their equity stake and desire to protect their reputation gives them added incentive to monitor management. The concentrated ownership is much more effective in monitoring management and therefore reduces agency costs.

Companies that have larger free cash flows are seen to have a greater likelihood of agency costs. This is due to management’s ability to invest in low return projects that are not in the best interests of the company. Additional debt increases efficiency by forcing organisations with large cash flows but few high return investment projects to disgorge cash to investors. Increasing debt through leveraged buyouts commits the cash flows to debt payment, which is an effective substitute to dividends (Jensen, 1986). Kaplan (1989a) and Smith (1990) provided evidence that the improved operating performance following going private was a result of a decrease in agency costs.
2.4 Wealth Transfer Effects
2.4.1 Bond holders
Prior research suggests there are two forms of wealth transfers. Critics of going private argue that takeover premiums are directly related to a transfer of wealth from both bond holders and employees. An increase in financial leverage makes outstanding debt more risky and will subsequently impact on bond ratings. Both Travlos & Cornett (1993) and Asquith & Wizman (1990) found that on average, leverage buyouts decrease pre-buyout bond holders’ wealth. However, the wealth transfer from bondholders only explains a small fraction of the shareholder gains in a buyout.

2.4.2 Employees
Wealth can also be transferred from employees to the new investors (Shleifer and Summers, 1988). New management teams can break employee contracts by laying off employees and forcing remaining employees to accept wage reductions. However, Muscarella & Vetsuypons (1990) find that their sample firms on average reduced their relative capital expenditures but did not implement reductions in employment. This result is also supported up by Kaplan (1989a), who found that employment increased by 0.9% on average after a management buyout. These results do not support the view that investors benefit from large employment cuts.

2.5 Asymmetrical Information and Under pricing
The principal criticism applied to going-private transactions is based on the absence of arms length negotiation between management as purchaser of the public stock interest and management as agent for selling public stock holders (DeAngelo, et al, 1984). This suggests that management have inside information about the value of the company and will act opportunistically. This may be information about future operational performance or investment opportunities. Muscarella & Vetsuypons (1990) could not reject the claim that buyout promoters and managers exploit inside information.

Smith (1990) provides evidence that asymmetrical information cannot explain the increase in operating returns after going private. While, Kaplan (1989a) provides evidence that challenges DeAngelo, et al. (1984). Kaplan (1989a) finds evidence that insiders (managers and directors) who have a large shareholding before the buyout often do not participate in the buyout. If the buyout was under priced, it would be nonsensical for these insiders to sell. Kaplan (1989a) also demonstrates this result by comparing forecasted earnings pre-buyout to actual earnings post buyout and arrives at the same outcome. In an Australian context, the legal requirement that an independent expert be appointed to assess the “fairness and reasonableness” of a going private bid may substantially mitigate the information asymmetry problem (Eddey, Lee & Taylor, 1996).

2.6 Efficiency Considerations
Research to date has not explored the efficiency gains from going private. This is because these gains are difficult to evaluate (Travlos & Cornett, 1993). Efficiency can relate to the decision making process. Firstly, as a private firm, this process can be much quicker and dynamic. Managers do not need to extensively justify new projects through studies and reports. This means that management can get projects off the ground quickly. Time is often a critical success factor in a competitive market. Secondly, private firms do not have to make onus disclosures. This can prevent the release of sensitive market information (Travlos & Cornett, 1993).
3. HYPOTHESES

The free cash flow\(^5\) theory has been the main argument behind going private transactions. Jensen (1986), Kaplan (1989a) and Smith (1990) provide evidence to suggest that increased leverage reduced free cash flows, thereby reducing agency costs. However, Australian research by Evans et al (2005) concludes that a large amount of free cash flow (excess capacity) is no longer a catalyst for a buyout. Research by Eddey, et al (1996) also fails to find direct support for the free cash flow hypothesis. This discussion leads to our first hypothesis, H1.

**H1: The larger the firms free cash flow’s, the more likely the firm is to go private.**

As used in Eddey, et al (1996), the measure of growth opportunities based on net tangible assets is not significantly different between going private and matched control firms that remain public during the sample. However, Evans, et al (2005) conclude that using changes in asset base as a proxy for growth is significant and that the likelihood of going private is negatively related to growth. Opler & Titman (1993) find evidence that going private firms typically have low Tobin’s Q. The results of Evans, et al (2005) and Opler & Titman (1993) suggest that going private firms have previously invested in projects that are value decreasing and the going private acts as a mechanism to correct poor investment decisions. This discussion leads us to our second hypothesis, H2.

**H2: The lower the growth prospects of the firm, the more likely the firm is to go private.**

The free cash flow hypothesis suggests that going private firms tend to underutilize their leveraging capabilities. Myers & Majluf (1984) find that when managers have information that others do not, firms tend to build up financial slack by restricting dividends when investment requirements are modest. Therefore, specialist buyout firms can utilize the excess slack to finance the going-private transactions. LBO’s are financed by taking on large amounts of debt. It seems logical that low geared companies are more likely to be going-private candidates due to the greater capacity to leverage up the company. This discussion leads us to our third hypothesis, H3.

**H3: The lower the amount of debt in the firm’s capital structure the more likely the firm is to go private.**

Lehn & Poulsen (1989) suggested a reason for going private was the threat of a hostile takeover. After takeover attempts or speculation, management teams up with outside financiers to take the firm private. Eddey, et al (1996) find that prior takeover threats are a strong motivator for going private. However, Evans, et al. (2005) find otherwise. This discussion leads us to our fourth hypothesis, H4.

**H4: Firms that have had prior takeover attempts or speculation are more likely to go private.**

Opler & Titman (1993) find that firms with high expected costs of financial distress (e.g. those with high research and development expenditures) are less likely to go private. Non financial stake holders such as customers, workers and suppliers are reluctant to do business with a firm in or near financial distress. This cost of financial distress is likely to be highest among firms with relatively unique products that may require future service Opler & Titman (1993). Evans, et al. (2005) also find evidence that research and development (R&D) spending has a significant

\(^5\) Free cash flow is cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital. (Jensen, 1986).
inverse relationship with the likelihood of going private. This discussion leads us to our fifth hypothesis, H5.

**H5: The smaller the costs of financial distress, the more likely a firm is to go private.**

This hypothesis has not been previously researched in Australia. Evans, et al. (2005) suggested that corporate governance characteristics such as board composition should be looked at in future research to determine whether its influences the decision to go private. Lehn & Poulsen (1989) suggest that going private is a result of takeover threats. Weir & Wright (2006) researched the decision to go private from two perspectives. Firstly, takeovers are a disciplinary mechanism which substitute for weak internal governance. Secondly, as part of a non-disciplinary perspective where takeovers are complementary to internal governance mechanisms. Weir & Wright (2006) found support for the non-disciplinary perspective that going private transactions do not have sub-optimal internal governance structures in terms of lower proportions of outside directors. This discussion leads us to our final hypothesis, H6.

**H6: The smaller the ratio of non-executive directors to total directors on the board, the more likely a firm is to go private.**

### 4. DATA AND METHODOLOGY

This study will use two approaches to test the hypotheses listed above. The first step of this research will be to test the above hypothesis by comparisons made between sample and matched control firms that remained public during the sample and logit analysis. The second step will attempt to explain the cross sectional variation in premiums in going private firms by using linear regression models. Table 1 shows relevant hypotheses and equation variables.

#### 4.1 Data Analysis

The sample for this research will be obtained from the Thomson Financial’s SDC M&A Database. SDC will identify Australian companies that have made going private announcements between 1990–2006 by the criteria of ‘Going private’, ‘Leveraged Buyout’ and ‘Management Buyout’. Aspect Huntley’s DatAnalysis database will be used to filter the sample from SDC to verify that sample companies actually went private. While, ‘delisted.com.au’ will be used to further check the sample companies reasons for delisting. Companies that undertook name changes and remained listed will be removed from the sample. Once the sample has been finalized, financial information will be obtained from AGSM Annual Report File and Securities Industry Research Center of Asia Pacific (SIRCA).

#### 4.2 Variables

This research will aim to use some different proxies from those used by Evans, et al (2005) and Eddey, et al. (1996). Both Evans, et al (1996) and Evans, et al (2005) used undistributed free cash flow (after distribution) as a proxy for free cash flows. This research will use free cash flows before distribution, as used in Opler & Titman (1993) and Betzer (2006). Private equity investors look for companies that have high cash flows that can service high interest payments after a buyout (Betzer, 2006). The growth proxy is also different from those used in Eddey, et al. (1996)

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6 **FCF= INC – TAX – INTEXP – PFDIV – COMDIV**

Where:

- **INC** = Operating income before depreciation
- **TAX** = Total income taxes
- **INTEXP** = Interest expense
- **PFDIV** = Preference dividends
- **COMDIV** = Common dividends

see Lehn & Poulsen (1989 p.777)
and Evans, et al. (2005). In both studies, growth is proxied by changes in tangible assets. This research will use change in sales as a proxy for growth, similar to the proxies used in Lehn & Poulsen (1989). The final proxy that has never been used in Australian research is the proxy for corporate governance. This research will use the ratio of non-executive directors to board size as a proxy.

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<thead>
<tr>
<th>Hypotheses</th>
<th>Variable</th>
<th>Proxy</th>
<th>Predictive Sign</th>
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<tbody>
<tr>
<td>H1</td>
<td>Free Cash Flow (Before Distribution) (FCF)</td>
<td>FCF (BD) = ( \frac{EBITDA}{Sales} )</td>
<td>+</td>
</tr>
<tr>
<td>H2</td>
<td>Growth (GRO)</td>
<td>Growth = ( \frac{Sales(t) - Sales(t-1)}{Sales(t-1)} \times 100 )</td>
<td>-</td>
</tr>
<tr>
<td>H3</td>
<td>Leverage (Lev)</td>
<td>Leverage = ( \frac{Total Liabilities}{Total Assets} )</td>
<td>-</td>
</tr>
<tr>
<td>H4</td>
<td>Takeover Attempts (TAKE)</td>
<td>Attempt=1 if there is a take over bid in the prior 12 month period to announcement Attempt=0 otherwise</td>
<td>+</td>
</tr>
<tr>
<td>H5</td>
<td>Costs of Financial Distress (R&amp;D)</td>
<td>R&amp;D = ( \frac{Research and development expenditures}{Sales} )</td>
<td>-</td>
</tr>
<tr>
<td>H6</td>
<td>Board Composition (BOARD)</td>
<td>Board Composition = ( \frac{Non-executive directors}{Total size of board} )</td>
<td>-</td>
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### 4.3 Likelihood Analysis
This first approach will attempt to explain why some firms are more likely to go private than others. The likelihood of going private will be tested using both means comparison and logit testing.

#### 4.3.1 Preliminary Data Analysis - Comparison Approach
The comparisons approach has been used in prior research by Lehn & Poulsen (1989), Eddey, et al. (1996) and Evans, et al. (2005). The sample of listed Australian firms that went private between 1990-2007 will be matched to a control sample that remain listed during the sample period. Matching will be done using Aspect Huntley's FinAnalysis database, peer matching tool. The matching of control firms to sample firms will be based on ASX industry codes and market capitalization six months prior to the going private announcement. The next step is to compare the mean values for the below variables for going private and control firms. A t-statistic will be used to determine if the difference in means is significant, measured at 10%, 5% and 1% levels.
4.3.2. Logit Analysis
Studies by Lehn & Poulsen (1989) and Eddey, et al. (1996) have used logit models to test the likelihood of firms that go private. However, this research will employ the methodology by Manski and McFadden (1981) which was recently used by Betzer (2006). In the Logit model, the dependent variable is zero for the control firms and one for firms that have gone private during the sample period. The independent variables in the model are FCF, GRO, LEV, TAKE, R&D and BOARD (as defined in table 1). Two logit models will be used to test two sub periods: 1990-2002 and 2002-2006. This will test whether the characteristics that determine firms going-private changed after 2002 due to changes in foreign ownership laws. $Y_t$ equals 1 if the company is a going private candidate and 0 if its not.

$$Y_t = \beta_0 + \beta_2FCF + \beta_3GRO + \beta_4LEV + \beta_5TAKE + \beta_6R&D + \beta_7BOARD + \varepsilon$$ (1)

4.4. Cross Sectional Analysis
Ordinary least squares regression (OLS) will attempt to explain the cross sectional differences in premiums paid in going private. In our model, takeover premiums will be regressed on Free Cash Flow (before distribution), Growth, Leverage, Takeover Attempts, R&D Expense and Board Composition. This research will use an event study approach which is based on the method used by Lehn & Poulsen (1989). Going private premiums will be used as the independent variable, rather than cumulative abnormal returns (CAR). Premiums are calculated as the share price 20 days before the announcement to go private to the final traded share price. The premium measure is seen to be more direct since it avoids using the CAPM to adjust returns and also measures the returns to shareholders over the entire period, rather than a set event window (Lehn & Poulsen, 1989).

$$Premium = \beta_0 + \beta_2FCF + \beta_3GRO + \beta_4LEV + \beta_5TAKE + \beta_6R&D + \beta_7BOARD + \varepsilon$$ (2)

5. Expected Results
This research strives to answer the question of what drives the market for corporate control in Australia? Some believe it is transfer of wealth while others maintain it is a necessary to restructure and will benefit the economy in the future. This research may provide insights into whether legislative changes in 2002 to spur international investment in Australia have been in fact self fulfilling? Investors are becoming more concerned about directors acting both as a buyer and seller of a company. This is evident in the recent failed management buyout of Alinta and the leveraged buyout of Qantas. Is this a result of poor corporate governance? Are empirical characteristics of going private still relevant in today’s market? At the completion of this study, answers to these questions can be found.
7. REFERENCES