



Capital structure decisions: lessons from South African leveraged buyouts.

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Abstract

The private equity industry has become a progressively more critical source of capital and effective governance for companies. The majority of capital raised by private equity funds is used for leveraged buyouts, with total funds under management amounting to R109 billion in 2009 for the South African industry. These funds are typically enhanced with additional deal level debt financing for each buyout thus representing, *ex-ante*, an active capital structure decision.

The objective of this study was to understand the determinants of decisions on the extent and type of leverage used in LBOs, and attempts to explain why the observed financing choices were made by the individual private equity firms. Buyouts totalling over R 26 billion and spanning the period 1998 to 2010 are analysed.

The findings are consistent with the predictions of the agency costs, trade-off and market timing theories of capital structure decisions; while little support is found for the pecking order and signalling theories. The results indicate clear patterns that lead to the supposition of an underlying model in which LBO sponsors seek to balance potential leverage related benefits with leverage related costs. The study also finds suggestive evidence indicating that the LBO financing package is designed methodically to respond to differences across firms in their size and maturity, growth prospects, in the variability of their earnings, and to a lesser extent the tangibility of their assets.



Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Masters of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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List of abbreviations and glossary

The terms listed below are used throughout this report

Term	Description
BEE	Black Economic Empowerment BEE, as defined in the Financial Sector Charter, means the economic empowerment of all black people, including women, workers, youth, people with disabilities and people living in rural areas, through diverse but integrated socio-economic strategies
bn	Billion
CAPM	Capital Asset Pricing Model
Captive Fund	Those funds making investments mainly on behalf of a parent or group, typically an insurance company, bank or institutional asset manager, often from an indeterminate pool of money
DFI	Development Finance Institutions
E	Equity
EBITDA	Earnings Before Interest Tax Depreciation and Amortisation
EM	Equity Multiplier
EV	Enterprise Value
FV	Future Value
GP	General Partner
Independent Fund	Those private equity companies, managers or funds raising and disbursing capital which has been sourced mainly from third party investors
IPO / Listing	Initial Public Offering When a company's equity is sold to investors via a listing on an exchange
JIBAR	The Johannesburg Interbank Acceptance Rate, known as the Bankers Acceptance Rate until 1999.



Term	Description
	This is the rate at which banks lend to each other, and is also the rate on which corporate lending rates are based. Loans are typically priced as spreads of JIBAR.
JSE	The JSE Limited, the primary South African stock exchange
LBO	Leveraged Buyout
LP	Limited Partner
MBI	Management Buy-in
MBO	Management Buy-out
mn	Million
NAV	Net Asset Value
PE	Private Equity
PIPE	Private Investment in Public Entity
SAVCA	South African Venture Capital and Private Equity Association
Purchase Price	Total funds raised by all providers of capital during a transaction. This could include the purchase consideration, funds to pay advisors fees, funds required for immediate working capital requirements, etc. This could be in the form of equity, shareholder loans, senior, mezzanine and junior debt and working capital facilities
Trade Sale	Sale of business to a third party, often referred to as M&A and frequently to an acquirer within the industry of the business being sold
UK	United Kingdom
US	United States of America
WACC	Weighted Average Cost of Capital



1. CHAPTER 1: INTRODUCTION TO RESEARCH

1.1. Research Title

Capital structure decisions: lessons from South African leveraged buyouts

1.2. Background

Leveraged buyouts came to fame in the 1980s in the United States when they contributed to the then emerging trend of hostile takeovers (Kaplan & Schoar, 2005). The worldwide buyout market has since experienced three decades of significant development since those days. Globally, private equity investments focused on leveraged buyouts have risen in popularity, with fundraising in 2008 estimated to have totalled \$1.02 trillion (Prequin, 2009). The term leveraged buyout (LBO) refers to the purchase of a significant and controlling equity stake in mature companies which normally possess strong cash flows, using significant debt financing raised by borrowing against the assets and/or cash flows of the acquired company (Rodden & Lewellen, 1995). LBOs and related forms of so-called later-stage private equity are playing an increasingly important role both as a major asset class for investors and as acquisitions that affect thousands of companies and millions of employees in one way or another globally. The fundamental operation of private equity firms is to acquire a full or partial ownership stake in unlisted companies of high growth potential, finance and assist in their growth, and sell them in 3 to 7 years (Kaplan & Schoar, 2005). Buyouts, in this context, are not motivated by potential advantages from the integration of the acquired business into another entity ("synergies"), but by the intention to increase the value of the takeover target as a stand-alone business beyond the purchase price (Kaplan & Schoar, 2005).



1.3. Research Problem

Past research has shown that returns to investors in LBO funds are abundantly superior, historically averaging more than 30% compound annual return (Venture Economics, 2004; Kaplan & Schoar, 2005). While the sources of these returns have been studied both locally (van Niekerk & Krige, 2009) and internationally (Ljungqvist & Richardson, 2003; Kaplan & Schoar, 2005); the capital structure considerations of leveraged buyouts have received limited attention to date. It is against this backdrop that this research intends to explain why the internationally observed financing choices are made by individual LBO firms. The results of the research will be compared to the generally accepted theoretical approaches to capital structure theory and empirical evidence, where applicable. It is hoped that the findings on the debt instruments used in leveraged buyouts will spur some empirical research on the listed corporate debt market instruments used in previous LBOs.

1.4. Need for the Study

The South African private equity industry has grown significantly over the last decade, with over R103 billion under management in 2009 (DBSA, 2009). The DBSA (2009) concludes that the impact of private equity on the South African economy is far reaching and contributes to key growth targets of the Government – in employment, export and improved competitiveness of South African firms. However, there are limited academic studies conducted on the industry in South Africa. As the buyout industry is more mature in North America and the UK, studies that concentrate on the financial performance and returns



to investors have historically been conducted in these two regions. In their study, Ward and Millson (2005, p. 81), conclude that “there seems to be consensus between the findings of the literature review and South African investors on the need for, but not the extent of, leverage imposed. This presents an area for further study.” Van Niekerk & Krige (2009) support this view and state that the determinants and effects of leverage have not been isolated and studied in depth. This study, therefore, attempts to fill the void identified by these scholars.

1.5. Research Aim and Objectives

The aim of this study is to attempt to explain why the observed financing choices were made by individual LBO firms - by identifying the relationships between the characteristics of the target firms and the types of financing decisions that are employed in their acquisition. In so doing, this study will unmask the general financial structure of LBO transactions conducted in South Africa. Since the majority of LBO transactions involve privately held target firms (Kaplan & Schoar, 2005); the findings of this study may also provide a valuable proxy for understanding the capital structure of privately held South African firms.

In essence the objectives of the research will be:

- Objective 1: to determine the extent of debt financing used in South African leveraged buyouts.
- Objective 2: to determine the debt instruments used in South African leveraged buyouts.

2. CHAPTER 2: THEORY AND LITERATURE REVIEW

2.1. Definitions and the Buyout Process

2.1.1. The Private Equity Investment Asset Class

Leveraged buyouts are part of the Private Equity investment asset class, which besides buyouts also includes venture capital as well as mezzanine capital. Private equity, in turn, is part of the wider alternative investment universe, which comprises asset classes such as hedge funds, real estate, physical commodities, currencies and interest rates (Bance, 2004).

Private equity may involve the acquisition of a private company with the intent of providing its founders the capital necessary to take its performance to the next level. It may involve the acquisition of a division of a large company, with the purpose of offering the newly-independent business the management focus and resources needed to achieve a new mission. It may also involve private investment in public companies (PIPE) through the purchase of a large block of shares. Or it may involve taking a public company private, public-to-private investment, in an effort to undertake improvements that would be difficult to achieve given the short-term earnings focus of the public markets. Private equity investing is often divided into five broad categories, as illustrated below:



Figure 1: Categories of Private Equity investment. SOURCE: Adapted from SAVCA (2010)



2.1.2. The Private Equity Sub Classes

There are three main accepted sub-classes of private equity, namely: venture capital, development capital and buy-out funding. These sub-classes are detailed in table 1, below.

Table 1: Private Equity Sub Classes. SOURCE: SAVCA & KPMG, 2009

Category	Stage of Business Development	Typical application
Venture Capital	Seed Capital	Funding for research, evaluation and development of a concept or business before the business starts trading.
	Start-up and early stage	Funding for new companies being set up or for the development of those which have been in business for a short time (one to three years).
Development Capital	Expansion and development	Funding for growth and expansion of a company which is breaking even or trading profitably.
Buy-out	Leveraged buy-out or buy-in	Funding to enable a management team or empowerment partner, either existing or new, and their backers to acquire a business from the existing owners, whether a family, conglomerate or other. Unlike venture and development capital, the proceeds of a buy-out generally go to the previous owners of the entity. Buy-outs are often leveraged.
	Replacement Capital	Funding for the purchase of existing shares in a company from other shareholders, whether individuals, other venture-backers or the public through the stock market. Unlike venture and development capital, the proceeds of replacement capital transactions are generally paid to the previous owners of the entity.



2.1.3. Types of Private Equity Firms

A private equity fund is a form of 'investment club' in which the principal investors are institutional investors such as pension funds, investment funds, endowment funds, insurance companies, banks, family offices, high net worth individuals and funds of funds, as well as the private equity fund managers themselves (Gilligan & Wright, 2010). According to Gilligan & Wright (2010), the objective of a private equity fund is to invest equity or risk capital in a portfolio of private companies which are identified and researched by the private equity fund managers. Private equity funds are generally designed to generate capital profits from the sale of investments rather than income from dividends, fees and interest payments.

A private equity fund may take minority or majority stakes in its investments, though invariably it will be the latter in the larger buy-outs. At the same time that a private equity fund makes an investment in a private company, there is usually some bank debt or other debt capital raised to meet part of the capital required to fund the acquisition (Gilligan & Wright, 2010). This debt is the 'leverage' of a leveraged buy-out.

A distinction is generally made between captive and independent funds; with independents managing funds on behalf of third parties while captives manage on-balance sheet investments that are generally funded by a parent or group often from an indeterminate pool of money (SAVCA & KPMG, 2009). Captive funds are, for the purpose of this research, defined as the funds of government, financial services (including banks and insurance companies) and other captive funds (including corporates). Unlike captive funds, independent funds are



usually closed ended. This means that once a fund has been raised, it is closed out, following which no further commitments are accepted from third parties. Professional private equity managers usually earn income from a combination of a management fee based on total commitments plus an enhanced carried interest, which is based on the performance of the fund relative to a benchmark. Captive fund managers usually do not charge any management fees.

2.1.4. The South African Private Equity Market

The current profile of the private equity industry in South Africa exhibits the characteristics of some of the most sophisticated private equity industries among emerging and developed markets, with different funds at all stages of business development, from start-up venture capital funds through to late-stage and buy-out funds. The industry's origins can be traced to the large number of leveraged buyouts and management buy-outs, resulting from the widespread disinvestment of multinationals from South Africa in the 1980s (SAVCA & KPMG, 2009). These transactions were structured, financed and managed by the major commercial, merchant and investment banks of the time. As these local banks developed the in-house expertise to manage private equity investments on an internally funded basis, there was a global trend, especially in the US and Europe towards the formation and management of private equity funds whose capital was sourced from third party investors such as pension funds, large corporations and other institutional entities (SAVCA & KPMG, 2009).

During the 1990s and early 2000s the industry grew substantially in terms of number of registered funds, number of deals executed and total value of deals. The number of deals and value of leveraged buyout transactions peaked in 2007 as illustrated below.

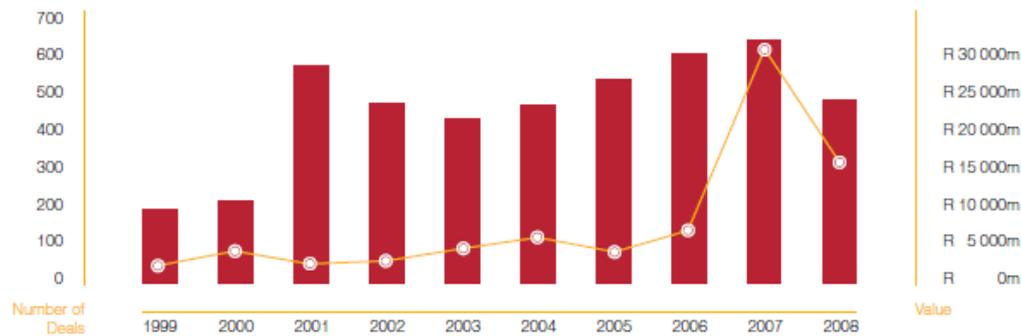


Figure 2: South African Private Equity Activity. Source: DBSA, 2009

2.1.5. Black Economic Empowerment

One of the notable features of South Africa's private equity industry is the significant role it continues to play in the development of BEE. Private equity transactions enable higher gearing, whereby a combination of private equity investment and bank loans allow the implementation of an appropriately geared financial structure, allowing management of the investee company to acquire a significant stake in the company (Gilligan & Wright, 2010). In the South African context, this leveraged model also creates opportunities for the involvement of black management and other BEE parties in the ownership and management of the investee company. In their 2009 survey, SAVCA and the DBSA conclude that 54% of portfolio companies responded that the introduction of BEE was only made possible through private equity investment (DBSA, 2009).

Furthermore, the increased participation by Government backed captive funds and the introduction of BEE shareholding at the fund level for independent funds continues to facilitate BEE. According to SAVCA, in 2009 almost 80% of total funds under management are at least black-influenced or classified as Captives-Government.

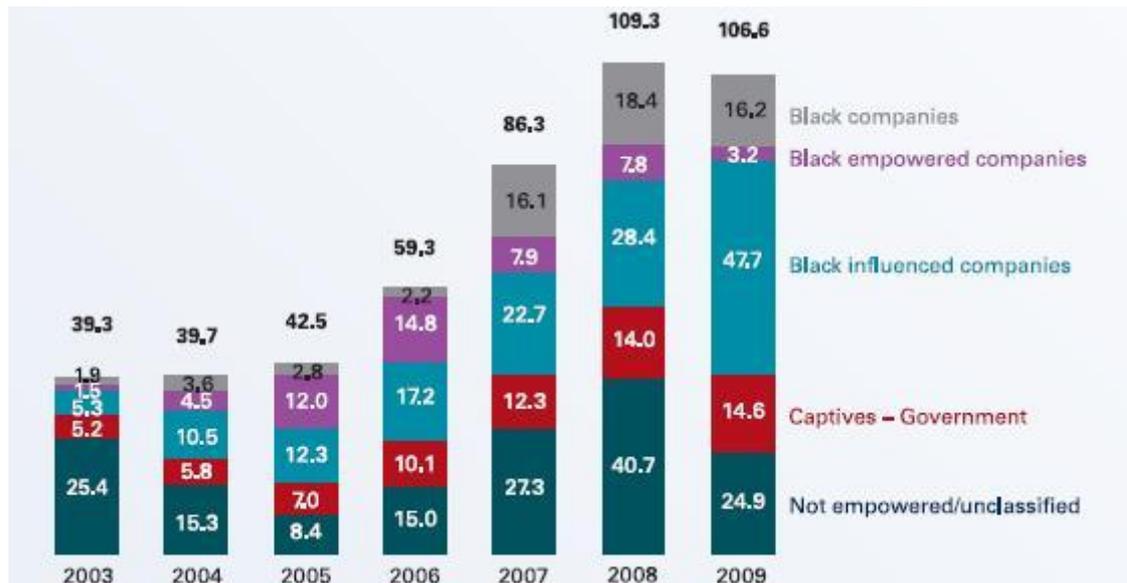


Figure 3: BEE classification of Private Equity funds. SOURCE: SAVCA, 2010

2.1.6. The structure of private equity buyout transactions

According to Gilligan & Wright (2010) private equity transactions generally take on three main different forms. First, a private equity fund might find a potential target and work on an exclusive basis with the company they would like to acquire (Gilligan & Wright, 2010). While such proprietary deals are increasingly rare, they are, however, common particularly for smaller deals in unlisted businesses. The second type of transaction would generally involve multiple private equity houses competing in an auction – often conducted by an investment bank – to purchase the target company. In certain cases, particularly involving larger deals, groups of private equity funds might form syndicates or



consortia in order to facilitate participation in syndicated or club deals; in such deals rival consortia would bid against each other. Each consortium will generally have a lead private equity firm that acts as the primary point of contact or lead sponsor for the consortium (Bance, 2004). The third form of transaction is public-to-private deals, where a private equity fund bids to take over a publicly quoted company (Gilligan & Wright, 2010). In these cases a critical requirement is to obtain the agreement of the management to 'open the books' to the private equity house so that they can undertake due diligence investigations (Bance, 2004). Management support is pivotal to the success of such deals as management will be expected to invest their own money in equity alongside the financial buyers; however current shareholders eventually decide whether to accept the deal through a voting process.

In all private equity transactions a new company or simply newco will be formed by the private equity firm to bid for a controlling stake in an existing target company. The newco is established specifically for the purposes of the transaction and is usually just a shell company with nominal capital and temporary directors (Gilligan & Wright, 2010). The private equity sponsor lines up debt financing, which is raised by newco and is conditional on the acquisition being carried out. The debt financing is usually backed by the target firm's assets and often based on the target's future earnings projections. Using the newly raised debt financing together with the equity capital that the private equity fund raises from its investors, the private equity firm can purchase the target firm (Gilligan & Wright, 2010). Should the private equity firm's bid be unsuccessful newco will be disbanded and the debt is never issued. Given the



above, debt financing constitutes an important consideration in the determination of capital structure decisions for any buyout.

2.2. Capital Structure Theory

The foundations of studies of the capital structure of corporations can be traced back to the seminal works of Miller and Modigliani (1958). They derived the leverage irrelevance theorem, concluding that capital structure does not impact firm value in an ideal environment. Recognising the effect of taxes, inflation and transaction costs Miller and Modigliani (1963) revised their earlier theory; concluding that a change in the debt-equity ratio introduces two factors that must be acknowledged:

- A firm's weighted average cost of capital (WACC) decreases as it increases its debt; and
- A firm's cost of equity increases as it increases its debt since shareholders bear higher business risk due to the increased possibility of bankruptcy.

Subsequent capital structure literature placed much emphasis on relaxing the assumptions made by Modigliani and Miller, in particular considering agency costs (Jensen & Meckling, 1976; Myers, 1977; Harris & Raviv, 1990), signalling (Ross, 1977) information asymmetry (Myers & Majluf, 1984), product and input market interactions (Brander & Lewis, 1986; Titman & Wessels, 1988), corporate control considerations (Harris & Raviv, 1991), and taxes (Bradley et al, 1984). The current state in studies of capital structure comprises a wide variety of theoretical approaches but no theory is universally accepted and practically applied (Myers, 2001; Harris and Raviv, 1991), According to Myers



(2001, p97) “There is no universal theory of the debt-equity choice, and no reason to expect one. There are several useful conditional theories however.” The major reason why financing matters includes taxes, differences in information, and agency costs. The main concern of this study is to shed light on the capital structure determinants that would cover most of the approaches developed in the capital structure theoretical field. Thus, in the following subsections different approaches will be analysed to help develop propositions regarding the main capital structure determinants of leveraged buyouts.

2.2.1. Pecking order theory

Myers and Majluf (1984) proposed that the pecking order is based on asymmetric information since managers have inside information on the future prospects of the firm that outside investors do not have. According to this theory, firms prefer internal finance (from retained earnings) to external finance; when external financing is required firms prefer debt over equity. The outcomes of empirical tests of the pecking order theory show mixed results. In independent studies Shayam-Sunder and Myers (1999), Frank and Goyal (2003) find little support for the pecking order theory. While Siefert and Gonenc (2008) find little evidence to support the pecking order theory in the US, UK and Germany for the period 1980 to 2004; they find support for the pecking order theory in Japan during the 1980s and 1990s. The pecking order theory, though, is less likely to explain leverage in buyouts than in public firms since the amount of leverage in buyouts is calculated at the time of the transaction, so there will have been no time for the firm to drift away from the target capital structure.



2.2.2. Agency costs theory

Capital structure is influenced by management, whose interests may be in conflict with those of the shareholders. Management might be tempted to pursue personal interests by overinvesting free cash flows in perquisites and bad projects, instead of maximising shareholder value (Jensen, 1986; Myers, 2001). Myers (2001) concludes that since debt commits the firm to pay out cash, it reduces the amount of cash available for management to engage in personal pursuits. This is commonly referred to as the disciplinary effect of debt on management. Therefore the mitigation of conflicts between managers and equity holders constitutes one benefit of debt financing.

2.2.3. GP and LP Agency Conflicts

Extending the agency costs theory and associated problems between the management and shareholders of public companies; there are potential agency problems between the private equity fund managers or general partners (the GPs) and the investors in the fund or limited partners (the LPs) that could explain leverage choices in buyouts (Kaplan & Stein, 1993). Kaplan and Stein (1993) suggest that this conflict is as a result of the typical contract between GPs and LPs in a buyout fund that stipulates that GPs get a carried interest of 20% of all profits (after fees borne by investors) provided the rate of return (as measured by IRR on invested capital) exceeds a stipulated hurdle rate; but the GPs earn no carried interest if the fund does not exceed the hurdle rate. This contract, it is postulated, gives the GPs an incentive to lever up each deal as much as possible, since they hold an option-like stake in the fund.



Ljungqvist, Richardson, & Wolfenzon (2007) provide a model in which these potential over-investment tendencies of GPs are mitigated by capital constraints, such that it becomes optimal to require GPs to go to external capital markets and raise debt whenever they want to make an investment. However, when liquidity in debt markets is high and/or interest rates are low, GPs can add more leverage to their deals and invest more aggressively, increasing the value of their option and making them willing to overpay for deals relative to fundamental value. This theory thus would lead to predictions that buyout leverage would be driven more by debt market conditions than by the fundamental characteristics of the underlying target firm.

2.2.4. Trade off theory

Myers (2001) postulates that debt offers the firm a tax shield, and firms therefore pursue higher levels of debt in order to gain the maximum tax benefit and ultimately enhance profitability. However, high levels of debt also increase the possibility and adverse effects of bankruptcy (Myers, 2001). Fama and French (1998) find an inverse relationship between leverage and investment tax shield, while the association between the corporate tax rate and the level of debt is positive. Nagesh (2002), in his investigation of JSE listed firms, finds a negative relation between the tax rate variable and the extent of leverage. He concludes that the trade off between investment related tax shields and debt-related tax shields is unobserved.

The LBO financing decision, thus, will involve a trade-off between leverage-related costs and leverage-related benefits, from the perspective of the buyout equity sponsor. The costs include the agency costs of high levels of debt



financing and the direct and indirect costs of possible financial distress and the risk of bankruptcy (Kaplan & Schoar, 2005). The benefits encompass the motivating and disciplining effect of debt on management and the value of the tax shields provided by the debt (Kaplan & Schoar, 2005). Buyouts in this context thus present a set of perceived opportunities for wealth creation for the buyout group, but these opportunities are moderated by a set of constraints on their ability to realise those opportunities. Thus, the financing choices observed are expected to reflect a trade-off that seeks to match at the margin the benefits and opportunities of debt financing with the costs and constraints.

2.2.5. Information Asymmetry and Signalling

Ross (1977) is credited with the information asymmetry theory of capital structure. He hypothesised that firm managers possess more information about the future prospects of the firm than the market. Therefore, he concluded, management's choice of capital structure may provide the market with signals of the firm's future prospects. Increasing leverage would signal to the market that the firm's management are confident about servicing the interest on the debt, and thus are confident about the future prospects of the firm. Jensen (1989) asserts that there is an increase in the monitoring of a firm as the size of external financing increases. This serves as a mitigating factor against the challenges of both information asymmetry and agency costs.

2.2.6. Market timing

Baker and Wurgler (2002) put forth the argument that managers attempt to take advantage of mispricing in equity markets when issuing securities. This theory contends that managers attempt to time issuance of new equity to periods of



high market performance when their stock is potentially overvalued; and investors fail to incorporate this in their valuation of the newly issued stock. This would lead to the prediction that leverage should go down after high stock market performance, as firms seeking to un-lever their capital structures will follow the market timing theory. This is, however, only applicable to public firms and thus will have minimal effect on this study, where the acquiring LBO firm is listed and chooses to issue equity in order to raise capital for a specific buyout.

Extending the work of Baker and Wurgler (2002), Baker et al (2003) suggest that debt markets may periodically become overheated, such that lenders do not require the full interest rate matching the fundamental underlying risk of a firm. This phenomenon should lead firms to issue more debt when the debt is more overvalued. The market timing hypothesis would suggest that LBO firms use this opportunity to take on more leverage when interest rates are lower. Based on this theory, buyout leverage should respond to debt market conditions as it does to firm characteristics as suggested by the trade-off theory. If we presume that the LBO sponsors are rational, they would be expected to be taking on more leverage, when debt financing is cheap. This theory therefore suggests that LBO funds seek to find the arbitrage opportunity presented by the mispricing of debt and equity markets.

2.2.7. Prior evidence and theoretical predictions

The prior findings and evidence from empirical studies, as well as predictions on the effect of corporate finance theory on target leverage ratio are presented in table 2.



Table 2: Expected effect on level of debt in capital structure: prior evidence and predictions

Theory Base	Prior Findings	Effect on debt-equity choice	
		Positive	Negative
Pecking order theory	Negative	√	
Agency costs theory	Positive		√
Trade off theory	Negative	√	
Information Asymmetry and Signalling	Inconclusive	√	
Market timing	Inconclusive	√	

2.3.Firm level characteristics

A number of firm level characteristics have been identified in previous literature as having an impact on the capital structure of firms. Amidu (2007) posits that theoretical constructs of any empirical research are proxied indirectly through firm level research. Harris & Raviv (1990) and Wald (1999) identify important firm level characteristics that affect capital structure as profitability, growth prospects, asset structure, firm size, firm risk and taxation. Profitability, firm size and asset structure are said to have a positive impact on the amount of leverage used in capital structure (Seifret & Gonenc, 2008). A firm's operating risk impacts its likely exposure to agency and bankruptcy costs, thus a negative relationship between risk and leverage is postulated (Ljungqvist & Richardson, 2003). These characteristics are expanded upon in the subsequent sub-sections of this research proposal.



2.3.1. Profitability

The financial performance of a firm, proxied as profitability, has been identified as a potential determinant of capital structure from a number of theoretical foundations. The pecking order theory predicts that firms with high profitability will use retained earnings first and then consider external financing in their capital structures (Myers & Majluf, 1984; Frank & Goyal, 2003). In this case, profitable firms with retained earnings tend to rely less on debt, and consequently their capital structures will use minimal debt. In studies employing tax-based models (MacKie-Mason, 1990), it is suggested that profitable firms should borrow more as they have greater needs to shield income from corporate tax. This is consistent with the trade-off theory, which asserts that firms use debt as a means of reducing tax payments thus firms with higher profits should have higher debt ratios. Higher profits, it is argued, allow the firm more corporate tax deductions and they help reduce the risk of bankruptcy (Rajan & Zingales, 1995). Therefore, the higher the profits of a takeover target, the higher the expected amount of leverage that can be used in the LBO financing package.

2.3.2. Growth

Myers (1977) argues that firms with growth potential will tend to have lower leverage. This is because high-growth firms may hold more real options for future investment than low-growth firms. If high-growth firms need extra equity financing to exercise such options in the future, a firm with large outstanding



debt may forgo this opportunity because such an investment effectively transfers wealth from stockholders to debt holders (Myers, 1977). So firms with high-growth opportunities may not issue debt in the first place and leverage is expected to be negatively related with growth opportunities. Empirical studies including Booth et al. (2001), Wald (1999), and Rajan and Zingales (1995) predominantly support this theoretical prediction.

2.3.3. Asset Tangibility

The degree to which a firm's assets are tangible should result in a firm having a better liquidation value (Harris & Raviv, 1991). The existence of asymmetric information and agency costs may also induce lenders to require guarantees materialised in collateral (Myers 1977; Harris and Raviv 1990). Van der Wijst and Thurik (1993) suggest that fixed or tangible assets are generally considered to offer more security than current or intangible assets. Myers (1977) also posited that tangible assets can support a higher level of debt than intangible assets since assets unrelated to the firm's core business may be sold-off after the acquisition. Kaplan and Stein (1993) provide evidence that asset sales are expected in many leveraged buyout cases. They infer that asset sales may be linked to the expected costs of financial distress and, thus, may be a determinant of the buyout financing structure. They contend that assets can be sold after the acquisition to generate the cash needed for debt payments. Therefore, the more tangible the assets of a takeover target, the higher the amount of leverage that can be used in the LBO financing structure.



2.3.4. Firm Size

Titman and Wessels (1988) contend that larger firms have greater diversity in their business activities and are therefore less susceptible to bankruptcy than smaller firms. Further, in the event of default, bankruptcy costs should comprise a smaller fraction of the total residual value of the firm for larger firms (Ang, Chua, & McConnell, 1982). In their study, Rodden & Lewellen (1995) find that firm size bears on three key factors relevant to the degree of leverage that is either feasible or desirable in the buyout transaction: bankruptcy risk, bankruptcy costs, and market access. Due to this, they conclude, larger firms will be financed with relatively more debt than smaller firms. This view is further corroborated by Rajan and Zingales (1995) who find that there is a positive relationship between firm size and leverage.

2.3.5. Firm Risk

The level of business risk associated with any firm's operations is expected to result in earnings variability. From this point of view, firm risk serves as a proxy for the probability of default on debt service obligations and increased susceptibility to financial distress. Therefore, firms with higher operating risk will have more volatile earnings and consequently higher chances of defaulting on debt and an increased possibility of bankruptcy (Rodden & Lewellen, 1995). Risky firms, therefore, can lower the volatility of their earnings and reduce agency and bankruptcy costs by maintaining low levels of debt in their capital structure. Empirical research has also found that firm risk generally has a negative relationship with leverage (Titman & Wessels, 1988; Wald, 1999; Booth et al., 2001).



2.3.6. Taxation

The tax-deductibility of interest payments has been pointed to as one of the major benefits of debt financing (Hayn, 1989; Kaplan, 1989). MacKie-Mason (1990) provides evidence that tax has a significant influence on the choice between debt and equity. He purports that firms with a higher effective marginal tax rate should use more debt to obtain a tax-shield gain. The value of the tax shield, and thus the value of leverage, is expected to be higher when the effective corporate tax rate is high and when a firm has high and steady taxable cash-flows.

2.3.7. Summary of firm-level characteristics

Clearly, there are many arguments for why both public and privately held firms choose their capital structure. While the arguments for public firms are the topic of voluminous literature and can be applied to LBO target firms as well, there are some specific considerations that apply particularly to LBO firms. The first LBO specific consideration is that the leverage chosen at the time of the buyout is not necessarily representative of what the LBO sponsors think is a long-term optimal target capital structure for the acquired firm. Second, LBO leverage is measured at a point in time when there is an active capital structure decision (the time of the deal), while the leverage of a public firm is subject to historical drift if the firm does not optimise the amount of debt at each point of time. This would be the case if firms face transaction costs when changing their capital structure. The prior findings and predicted effects of firm level characteristics on the amount of debt used in an LBO transaction are presented in table 3.



Table 3: Firm level characteristics and their effect on debt: prior evidence and predictions

Characteristic	Prior Findings	Predicted Effect	
		Positive	Negative
Profitability	Negative	√	
Growth	Positive	√	
Asset structure	Positive	√	
Firm size	Positive	√	
Firm risk	Negative		√
Taxation	Inconclusive		√

2.4.LBO financing decisions and debt instruments

According to Ward and Price (2006) financial leverage is the proportion of capital financed using debt instead of equity. It then follows that the higher the amount of financial leverage used, the higher the amount of debt in the capital structure. Drawing upon current capital structure theory to establish propositions about what might be expected in the analysis of LBO financing decisions, a balancing theory of capital structure (Amidu, 2007) is likely to be utilised to attempt to explain the determinants of the LBO financing decision. Specifically, it is expected that the LBO financing decision will involve a trade-off between leverage-related costs and leverage-related benefits, from the perspective of the buyout group. The costs include the agency costs of high levels of debt financing and the direct and indirect costs of possible bankruptcy. The benefits include the motivating and disciplining effect of debt on management and the tax shields provided by debt. Accordingly, the financing choices of LBOs will seek a trade off that matches the marginal benefits and opportunities with the costs and constraints of debt.



For the purposes of this study, the debt instrument choices involved in financing LBOs manifest themselves in the various proportions of the total financing packages for the transactions, which are expected to be comprised of (Axelson et al., 2009):

- i. Bank debt – further classified into senior, junior and contingent. Where contingent debt refers to facilities that are put in place at the time of the LBO transaction to fund working capital, capital expenditure, and acquisitions which are not drawn down at the time of the transaction;
- ii. Subordinated debt securities - including mezzanine or second lien debt;
- iii. Assumed debt – which is the proportion of the target’s existing debt that the new owners will take on; and
- iv. Vendor loans - transactions where the target’s current owners are prepared to accept some part of the total purchase price as a loan note secured on the target company.



3. CHAPTER 3: RESEARCH PROPOSITIONS

The scope of the literature review was developed to create a theoretical foundation of knowledge about the considerations that come into play in structuring financing packages for buyouts. To understand and unpack the financial structuring decisions that are made in LBOs, the following propositions were made.

1. The larger the target firm, the greater the proportion of the total buyout financing package debt will represent.

The reasoning is that larger firms have diversification in their business activities and consequently diversified revenue and cash flow streams. Given this, the LBO sponsors would expect larger firms to be less likely to default on their debt service obligations; and these firms are also likely to be treated more leniently and with greater flexibility by creditors because of the large size of loans involved.

2. Target firms with attractive growth prospects are financed with a larger proportion of common equity than firms in the maturing and decline stages of their lifecycle.

In a bid to fully capture the economic benefits of future growth and grow the value of their equity stakes in portfolio companies; LBO sponsors are expected to moderate the agency costs of risky debt, by contributing a larger proportion of



equity in the buyout financing package particularly in respect of target firms with significant growth prospects.

3. Target firms with more tangible assets or where the acquirers plan to sell assets after the buyout are financed with proportionally more debt.

Tangible assets are expected to serve the dual purposes of securing asset backed debt funding as well as the possibility of selling some non-core assets after the buyout in order to pay down LBO debt. Kaplan and Stein (1993) provide evidence that asset sales are expected in many cases of LBOs. They surmise that asset sales may be linked to the expected costs of financial distress and, thus, may be a determinant of the buyout financing structure. Thus, LBO sponsors are expected to use proportionally more debt in the buyout financing package of target firms with more tangible assets.

4. Target firms with lower earnings variability and higher levels of free cash flows will be financed with proportionally more debt.

In principle, high variability in the level of earnings of the target firm will increase the likelihood of default on debt service obligations and should act as a disincentive for the LBO sponsor to have a highly levered buyout financing package when there are positive costs to financial distress. Thus, it is expected that LBO sponsors will fund the buyout of firms with low earnings variability with proportionally more debt.



5. The proportion of senior bank debt in the buyout financing package is higher than junior debt securities.

In Jensen's argument (1986), it is not the total amount of debt outstanding but rather the amount of debt service payments per period that motivates managers to work harder. Thus, the structure or terms of the debt plays an important role in how effectively debt motivates managers. Senior debt, typically with a shorter maturity, increases the debt service payments per period and increases the incentives for managers to work harder to increase value in the immediate post buyout period. In addition, senior bank loans are more likely to have restrictive covenants in the debt agreements compared to publicly held subordinated debt (Smith & Warner, 1979). Thus, when LBOs are financed with more short-term or senior debt than with long term or subordinate debt, debt is likely to play a more important role in monitoring and motivating managers in the post-LBO firm.

6. The likelihood that reduced-cash-flow securities will be used as part of the buyout financing package increases when the proportion of debt in the total financing package is relatively high, when a relatively high acquisition premium is paid, and when substantial future growth opportunities are present for the target firm.

Kaplan and Stein (1993) find that the use of deferred-interest or reduced cash flow debt instruments in LBO transactions increases after 1984 and that junk bond financing is more likely to involve deferred-interest securities and be associated with higher buyout premiums. Because reduced-cash-flow



instruments are devices used to defer debt service obligations past the immediate post-buyout period, the benefit of such deferral should be directly related to the severity of the immediate cash flow burden that would otherwise be borne. That burden is most onerous when the debt component of the buyout financing package is high and when a large acquisition premium has been paid. It is expected that LBO sponsors that pay high acquisition premiums or use high levels of leverage will have a higher immediate cash flow need from the target firm and would thus benefit from the cash flow flexibility that interest deferral provisions provide.



4. CHAPTER 4: RESEARCH METHODOLOGY

4.1. Research Design

This study was conducted using qualitative research techniques. The study intended to describe the extent of debt used in leveraged buyouts and highlight the preferred debt instruments used in these transactions. The nature of the research questions to be answered necessitated that the study be split into three phases. The phases were planned as follows:

Table 4: Research Methodology and Phases

Research Phase	Main Objectives	Data Collection Method	Sampling Technique
Phase 1	Exploratory research: develop frame of reference and literature review of key points	Semi-structured, elite interviews	Purposive
Phase 2	Pilot interviews: test draft questionnaire, refine approach, and finalise question sequence	Semi-structured, narrative enquiry interviews	Purposive
Phase 3	Face-to-face depth interviews with key decision makers and experts in the field	Semi-structured, narrative enquiry interviews	Convenience

The first phase of the research was exploratory in nature, where informal discussions were held with an expert panel to supplement the literature review. According to Zikmund (2003) exploratory research may be used to progressively narrow down a research problem, set priorities for research and sharpen concepts to be researched at a later stage. It is precisely for these reasons that the first phase of the research focused on the initial identification of relevant firm level characteristics that are determinants of capital structure decisions specifically for LBOs; as well as generic debt instrument attributes to



be used in the second phase of the research. The purpose of this phase of research was to:

- Refine the theoretical constructs of the research topic;
- Test theoretical predictions and prior US and European experience on the determinants of capital structure decisions for buyouts;
- Ensure relevance of the theory base and application to the South African context; and
- Understand if any pertinent considerations, tailored to the South African context have not been unearthed in prior US and European studies.

The purpose of the second phase of research was to:

- Conduct pilot interviews primarily to test the research approach, length and focus of interviews;
- Test the content and sequence of interview questions;
- Test the length of the interview and optimal number of questions; and
- Refine the theoretical constructs of the research questions and make any necessary adjustments to the research instrument.

Following the first two phases of the research study, the data collection instrument was refined with some questions added, others modified and deleted. The resultant interview guide is detailed in appendix B.

The third and final phase of the research was conducted using face-to-face depth interviews with key decision makers and experts in the field of LBOs. This is explained in further detail in the data collection section of this report.



4.2. Why qualitative research

It may be argued that a more conventional approach to studying capital structure considerations would most naturally employ quantitative research methods. According to Myers (2001), research on capital structure has focused on publicly listed companies since they have access to financial markets and the flexibility to adjust capital structure at a low cost. This has, however, created an empirical blind spot where researchers have largely ignored studies of the capital structure of privately held firms. Major South African efforts (de Wet, 2006; Abor & Biepke, 2006; Rayan, 2008; Rathaba, 2009) at studying capital structure determinants and decisions have also focused on JSE listed firms, largely for the same reasons as identified by Myers. Were this study to employ a similar approach, it would involve gathering secondary data from databases such as the Ernst & Young Mergers and Acquisitions Review, private equity companies' deal cards and running a number of statistical routines using the acquisition target firm as the unit of analysis. This approach would, however, not be ideally placed to answer the questions of this study due to significant gaps in publicly available data, specifically on the structure and financing packages of executed LBO transactions.

This study differs materially from the previous studies in that it focuses on privately held firms, and seeks to understand the *ex-ante* capital structure choices made by the acquiring LBO firm with specific reference to the amount and type of debt used. Given the subject of this inquiry, quantitative research may only unearth the *ex-post* capital structure of firms with no insights on the *ex-ante* considerations. The depth of insight required necessitates that the



research method to be employed allows for the researcher to delve into the real worlds of the interviewees, in order to gain insights into the considerations and trade-offs involved in structuring LBO financing packages. Qualitative research is often the most effective method of conducting empirical investigations aimed at better understanding phenomena occurring in their natural context (Dowd, 2004). Lee and Humphrey (2006) trace the development and increasing use of qualitative research in accounting and finance, largely under the banner of behavioural finance. They further assert that more qualitative studies are required in the various sub-disciplines of finance, to contribute to better insights based on the assimilation of ideas from other disciplines such as sociology and psychology (Lee & Humphrey, 2006).

Lastly, recent South African studies of the private equity industry (Moolenschot, 2002; Ward & Millson, 2005; van Niekerk & Krige, 2009) have found access to secondary data problematic, and reported difficulty in obtaining real transaction data as most private equity firms prefer to remain private. All these studies employed qualitative methods primarily interviewing private equity fund managers in order to generate primary data, which they have had to destroy after their investigations for confidentiality reasons.

4.3. Research Scope

This study investigated the determinants of debt financing in a leveraged buyout, and in so doing identified the capital structure considerations of leveraged buyouts. Findings were expected to provide a proxy for the extent of debt financing used as well as establishing the preferred debt instruments as used in South African leveraged buyouts.



4.4. Population

The target population in this study consisted of practitioners in the South African private equity industry that are engaged in or have participated in reviewing companies for the purpose of private equity funding. These practitioners had experience in structuring buyout deals using leverage to achieve the objectives defined in the literature review. The focus on debt financing instruments necessitated that the target population have an understanding of the widely available debt instruments in order to provide meaningful insights to this inquiry.

4.5. Sampling

The nature of qualitative research is to provide an in-depth understanding of a concept or problem rather than to quantify a known phenomenon (Zikmund, 2003). The depth of insight required by this study therefore dictated that a small sample size is required. The sampling frame used was the membership directory of the South African Venture Capital and Private Equity Association (SAVCA), incorporating both full and associate members. To ensure richness of insights while minimising sampling frame error; respondents were sampled across different types of private equity houses including stand-alone private equity funds (independent funds), government backed funds, and captive funds linked to the major banks and insurance companies.

Non-probability sampling was the preferred sampling technique, where respondents were selected from the sampling frame based on the key criteria of having been active participants in the financial structuring of leveraged buyouts. The research objective was to interview at least ten respondents. The target



interviewees were key decision makers directly involved in making equity investment decisions in primarily unlisted companies. These decision makers could be executive or non-executive directors, investment principals and professionals, members of investment committees or persons responsible for approving investment decisions. Two exploratory interviews were conducted and these included one with a director in a leading private equity house and another with the head of a bank's leveraged and acquisition finance division.

The final interviews were conducted with thirteen (13) respondents from ten (10) private equity funds that specialise in buyouts. The researcher also used snowball sampling as additional respondents, such as debt structuring specialists, were obtained from information supplied by initial respondents. What became evident to the researcher during the course of the project was that the interview respondents largely represented the successful funds in the industry.

4.6. Data Collection

The study used semi-structured interviews as the primary method of data collection. As Barbour (2008, p.119) contends "the semi-structured aspect is crucial as it refers to the capacity of interviews to elicit data on perspectives of salience to respondents rather than the researcher dictating the direction of the encounter, as would be the case with more structured approaches." It was for this reason that the researcher used an interview guide with pre-planned questions to steer the direction of the conversation, while allowing for a natural free flow of conversation and questions. Respondents were guaranteed



anonymity to allow for candid and open responses, and a greater analysis of the issues raised in the interviews.

The researcher used an iterative approach to refine the research design, the interview questions and their sequence. Barbour (2008) also suggests that researchers may benefit from re-ordering questions on the interview schedule to more accurately reflect the general focus of previous interviews and the topics that appear to capture respondents' interest. The researcher used the pilot phase of this inquiry for this sole purpose. McCracken (1988) also supports the use of pilot interviews, pointing out that they help ensure both that the questions elicit the sort of data required and that the order is likely to facilitate a progression that is comfortable and that works for both interviewer and interviewee.

The final interviews conducted were an hour long in duration, conducted at a suitably quiet place in the respondents' business premises. The researcher used audio recording equipment (with the permission of each respondent) to enable both the researcher and the respondent to engage without the distraction of note taking. Each interview consisted of two parts:

- a. Interview questions which would extend the research propositions based on an interview guide (appendix B);
- b. A mini-case study involving a previously concluded investment to facilitate discussion and learning based on a real-life transaction undertaken by the respondent's firm.



Other issues raised outside of the propositions framework that were deemed to add value to the research were also noted and analysed.

The mini-case study in each interview was selected upfront, and agreed with the respondent before the interview. This allowed respondents the opportunity to obtain any necessary approval to discuss the case with the researcher and to gather relevant and specific data on the financing structure of each mini-case study. While recent acquisitions would make for an interesting study of current LBO structuring issues, exited investments or investments executed 24 or more months ago were preferred as they presented opportunities of yielding more insight. This was primarily because such transactions would offer a longitudinal view of the *ex-post* capital structure and performance of the acquired companies and how this was affected by the *ex-ante* capital structure of the respective buyout deals. In their study of large US buyouts conducted between 1980 and 1989, Kaplan & Stein (1993) find that 35% of buyouts conducted after 1985 experience distress and become unable to meet their post-buyout debt payments. This insight and related analysis, they concede, would not have been possible without post-buyout data.

4.6.1 Secondary Data Used

In addition to the interviews, the researcher also consulted various other sources for additional data and to supplement data gathered during the interviews, the sources included:

- Company websites, investor relations press releases, and popular business press websites for announcements and ancillary details on the various acquisitions studied;



- Historical Johannesburg Interbank Acceptance Rate (JIBAR) rates have been collected for all the years that correspond to the transactions in the sample, in order to test the effect, if any, of credit market conditions on LBO financing structure decisions;
- Private equity firm deal cards to verify transaction dates and details. Where the transactions qualified, the researcher also consulted the annual SAVCA surveys to verify deal information for the deals that were in the top 10 reported deals for the applicable year;
- The competition commission's website to verify dates and arrangements regarding approval of the mergers in cases where transactions were deemed significant mergers;
- Stock Exchange News Service (SENS) announcements and shareholder circular documents, specifically for the public to private deals, for further details on the offer price and applicable premium to the 30 day trading averages before the announcement of acquisitions; and
- In the case of the transactions that used high yield or listed debt instruments, the researcher accessed the debt offering memorandum issued as part of the listing process and/or prospectus documents and reported results for the listed preference shares.

As part of the data collection process the researcher employed some specific tactics to enhance the value of the interviews including:

- Establishing rapport with the interviewees by discussing elements of mutual interest, including people in the industry, state of the economic or



political environment or interesting aspects about the private equity industry, the interviewee's business activities or background;

- Getting the energy and enthusiasm of the interviewee to a high level by asking them questions about their company and personal involvement therein;
- Being well-prepared and well versed with background information on the interviewee's company and its activities so that minimal time would be spent on discussing background or context elements;
- Bringing some humour, at appropriate points, into the interview and generally trying to make the interview an interesting experience for the respondents; and
- Being punctual, courteous and asking permission to record the interview.

4.7. Data Analysis

Huberman & Miles (1994) suggest that qualitative data analysis embraces three linked sub-processes: data reduction; data display; and data interpretation. They propose a method of analysis that reduces the gathered data by analysis and generating key themes and patterns; visually grouping and displaying these against the inquiry questions and interpreting these findings. The process described reflects what Patton (1990) describes as the two sides to qualitative analysis:

- a) the highly creative element depending on the insights and conceptual capabilities of the analyst; and



- b) a technical side that is analytically rigorous, mentally replicable, and explicitly systematic.

All findings and observations from the data were anonymised and reported in a general manner. This involved the recording of key interpretations and observations, allowing the researcher to understand the structure and essence of experience of the respondents within each case discussed (McCracken, 1988). The researcher analysed the data by comparing and contrasting with what the theoretical models predicted, and the extent to which the original propositions were supported or rejected (Gray, 2009). Table 5 summarises the data analysis methods used in this study.

Table 5: Data analysis methods for the research study

Analysis Method	Rationale
Narrative Enquiry	This method is applicable where respondents are reliving certain experiences through the stories they tell, it is important to search for the hidden meanings behind their words. This method will be used during and directly after the interview.
Constant Comparative	The iterative nature of the data collection and analysis process necessitates a constant comparative data analysis method, wherein new data sets will be compared to previous data. This method will be used after the narrative analysis of each interview.
Content Analysis	This method entails a detailed examination of the contents of the data including the interview notes, transcripts, case study reflections, observations, key themes and interpretations. This method of analysis will be performed in conjunction with the other methods.

4.8. Data validity and reliability

Qualitative research needs to convince the reader that the study makes sense, unlike the quantitative study that has to convince the reader that statistical



procedures have been followed faithfully (Merriam, 1998). In order to introduce rigour into the study an expert in qualitative analysis was consulted; the data were presented to them along with the preliminary findings in order to determine whether the results are sensible and reasonable. This was undertaken primarily to reduce researcher bias, which as Merriam (1998) points out is inevitable.

The researcher also used triangulation, an analytical research technique that makes pertinent conclusions based on observations and results from multiple methods by leveraging the strengths of several methods while minimising their individual shortcomings (Gray, 2009). This technique promotes the use of evidence from different sources to corroborate the same fact of finding (Patton, 1990). This allowed the researcher to compare and contrast new data with previous data and the predictions of theoretical models and prior findings.

4.9. Research Limitations

This study can only be indicative and not conclusive due to a number of limitations recognised in the design and execution of the project, including:

- The relatively small sample of buyouts analysed made it inappropriate to generalise implications for the findings based on the results. However, it must be noted that the buyouts in the sample represent complex deals which are larger than average deals and have more complex structures.
- Convenience sampling may have led to response bias, especially where two or more professionals interviewed simultaneously came from the same private equity firm. Furthermore, the extent of debt used and preferences for debt instruments may reflect LBO firm philosophy or the house view and unintentionally skew the results.



- The selection of mini-case studies discussed with the respondents may have introduced a selection and survivor bias; respondents may have preferred to exclusively analyse case studies of buyouts that have shown significant post-buyout performance or are considered successful LBOs.
- The prevailing low interest rates and medium term outlook for interest rates may have created an artificial appetite for larger, more senior debt while debt is perceived to be cheap. This may have led to a higher level of response bias especially with respondents from large pro-debt private equity firms. However, the collected secondary data mitigated against this potential shortcoming.
- The relatively pedestrian rate of new acquisitions since 2009 may have limited the number of available mini-case studies for review. The researcher considered buyout transactions conducted before and after the global credit crunch and its effect in South Africa from late 2008.



5. CHAPTER 5: PRESENTATION AND COMMENTARY ON RESULTS

This chapter presents the research findings from the interviews conducted, as per the research propositions and research methodology (chapters 3 and 4 - respectively).

5.1. Overview of the interviews, companies and case studies

A summary of the characteristics of the private equity funds represented in the study is presented in table 6 below.

Table 6: Characteristics of Private Equity Firms interviewed

Firm	Type	Number of Funds	Fund Size or Funds Invested To Date	Min Investment	Max Investment	Sectors Excluded						
						Agriculture	Property	Military	Mining	Gambling	Tobacco	Financial Services
Firm A	Captive - Financial Services	Single	R 5 billion	R 250 million	R 1 billion	√	√	√		√	√	
Firm B	Independent	Single	USD 1,810 million	USD 50 million	USD 250 million	√	√	√	√	√	√	
Firm C	Independent	Various	Over R15 billion	R 100 million	R 1 billion	√	√	√	√	√	√	
Firm D	Independent	Various	Over R10 billion	R 100 million	R 800 million	√		√		√	√	
Firm E	Captive - Financial Services	Various	R 4 billion	R 100 million	R 250 million	√	√		√			
Firm F	Captive - Financial Services	Single	Open-ended	R 150 million	None	√	√	√		√	√	
Firm G	Captive - Financial Services	Single	Open-ended	R 50 million	None		√		√			√
Firm H	Independent	Various	USD 1,300 million	USD 150 million	USD 350 million			√		√	√	
Firm I	Captive - Government	Single	Over R 50 billion	R 1 million	None			√			√	√
Firm J	Independent	Two	R 1,5 billion	R 30 million	R 180 million			√		√	√	



The firms represented in the study included independent firms that manage only third party funds, captive firms linked to the banks and insurance companies, and a government-backed captive fund. All the firms in the sample have been involved in private equity investments for more than five years.

The sample includes some of the most admired and largest private equity firms in South Africa, by funds under management, and total invested capital. It has to be noted that independent firms with multiple funds dominate the sample. All the independent firms in the sample have raised at least two funds, while all the captives have seen growing allocations to their funds. These rounds of fund capital raising and incremental capital allocations bear testament to the success enjoyed by these firms in the private equity market.

It is interesting to note that the funds generally do not invest in agriculture, property, and mining; however a number of the funds have linked businesses that invest in property developments. In addition to this, almost all the funds make investments in a wide array of sectors but would generally not invest in any company that is involved in any of the “sin industries” such as tobacco, gambling and any business involved in the military or armaments trade. This is largely due to investment mandates received from institutional investors who comprise a large category of funds’ limited partners or capital providers. It is also interesting to note that some of the captive funds are precluded from investing in any entity whose primary business activity is financial services.



5.1.1 Interview Respondents

Information on the interview respondents and interview details is shown below in table 7. All interviews were conducted in environments suitable for the research data collection, and all interview respondents are active decision makers in their respective private equity firms. In addition to this, each respondent has responsibility across the private equity value chain including deal origination and sourcing, deal structuring, negotiation, post-deal management and investment harvesting.

Table 7: Interview Listing

Firm	Respondent Designation	Interview Date
Firm B	Executive Chairman	31 May 2010
Firm E	Director	27 July 2010
Firm A	Partner	30 July 2010
Firm A	Chief Investment Officer	2 August 2010
Firm H	Partner	6 August 2010
Firm J	Director	18 August 2010
Firm B	Founding Director & CEO	18 August 2010
Firm G	Director	19 August 2010
Firm C	Director	20 August 2010
Firm I	Director	25 August 2010
Firm F	Senior Private Equity Principal	7 September 2010
Firm E	Director	7 September 2010
Firm D	Director & CFO	14 September 2010



5.1.2 Interview Case Studies

For each interview, a previously concluded LBO investment was selected to be discussed and analysed as a case study. Details of these case studies are presented in table 8 below. This table indicates that the study's sample was well-represented across different types of LBOs, target company industries and spans a time period of 12 years.

Table 8: Description of case study acquisitions selected for each interview

Deal Type	Case Study	Date of Deal	Purchase Price (R m)	Total Debt (R m)	Club Deal
Public to private	Food & Beverage Co	May 1998	1,806	906	√
Secondary Buyout	Food & Beverage Co	Feb 2004	2,400	1,600	√
Buyout of unlisted business	Furniture Co	June 2006	1,375	1,000	√
Public to private	Glass Co	Feb 2007	6,200	4,200	√
Buyout of unlisted business	Engineering Co	April 2007	550	350	
Buyout of unlisted business	Ready to Eat Foods	June 2007	1,295	960	
Buyout of unlisted business	Supply Chain Co	July 2007	2,100	1,200	
Public to private	Financial Services Co	July 2007	8,400	5,100	√
Public to private	Auto Accessories Co	March 2008	1,032	568	
PIPE	Construction Co	Nov 2008	608	244	
Division of a listed company	Car Parts Co	May 2010	435	200	

The sample contains four (36%) buyouts of independent and unlisted companies, four (36%) public-to-private deals (where listed companies were



bought off and delisted from the JSE), the buyout of a division of a large diversified listed company, a secondary buyout (a buyout of a firm owned by another private equity group), and a PIPE deal (private investment in a public entity without delisting the company and taking it private). Four transactions in the sample are club deals, which are buyouts involving more than one LBO fund sponsor.

The deal sizes ranged from a low of R 435 million up to the largest deal where a listed financial services company was bought off the market for over R 8.4 billion. The total value of the transactions in the sample is over R 26 billion, with the average purchase price at just over R 2 billion and the median is R 1,375 million. In all but one of the transactions analysed the total purchase price was over R 500 million. It has to be noted that this does not represent the typical private equity deal, as the average purchase price is far larger than the R 26.2 million reported by SAVCA as the average deal size for the period 2007 to 2009. Public to private transactions are the largest in the sample (by enterprise value), and include the sample's largest deal. In contrast, the buyout of a division of a diversified listed company is the smallest transaction in the sample.

The transaction involving Food & Beverage Co which was executed in 1998 was chosen specifically as it was concluded at the height of the emerging markets financial crisis following the collapse of Asian financial markets during 1997 and 1998. This transaction was also chosen to track financial package structuring considerations during South Africa's most difficult debt period; prime interest rates peaked at 24%, while JIBAR reached a high of 22% during 1998.



This company was later involved in a secondary buyout, also represented in the sample, in 2004.

The majority of the transactions analysed were concluded during the global private equity boom period of 2007. This was a record year for the South African buyout market since a number of large local and foreign players concluded significant and record breaking buyouts including the largest deal to date with a total purchase price of over R 25 billion. Incidentally, the only transaction in the sample concluded after the global economic crisis is also the smallest deal. For ease of presentation and analysis, the transactions are grouped by deal type and sequenced as follows:

Table 9: Case study acquisitions organised by deal type

Case Study	Date of Deal	Purchase Price (R m)	Total Debt (R m)	Debt Refinanced	Club Deal
Buyout of Unlisted Business					
Furniture Co	June 2006	1,375	1,000	Yes	Yes
Engineering Co	April 2007	550	350	No	No
Ready to Eat Foods	June 2007	1,295	960	No	No
Supply Chain Co	July 2007	2,100	1,200	Yes	No
Public to Private Deals					
Food & Beverage Co	May 1998	1,806	906	No	Yes
Glass Co	Feb 2007	6,200	4,200	No	Yes
Financial Services Co	July 2007	8,400	5,100	No	Yes
Auto Accessories Co	March 2008	1,032	568	No	No
Secondary Buyout					
Food & Beverage Co	Feb 2004	2,400	1,600	Yes	Yes
PIPE					
Construction Co	Nov 2008	608	244	No	No
Division of listed company					
Car Parts Co	May 2010	435	200	No	No



It is interesting to note from the data that three transactions in the sample required debt refinancing, in some instances completely altering the debt financing packages concluded at the deal stage.

Considering the leverage characteristics of the sample buyouts, it is interesting to note that most transactions used some form of debt in the financing structures of their buyouts; in total debt provides an average of 62% of the total financing package for all buyouts in the sample. Overall, debt is typically broken into several tranches with the average deal containing two tranches. The biggest deal in the sample, by enterprise value, also happens to have the most variety of types of debt instruments; this deal will be analysed in more detail in the next chapter. Senior debt provides the majority (81%) of the debt financing, with subordinated debt providing the remainder of the debt (19%). It must be noted that senior debt is not just limited to traditional bank debt since high yield bond notes were issued in a number of the deals in the sample. These notes were treated as senior debt as they are ranked as first priority senior secured notes by the listing exchanges, and in the majority of cases these notes also represent the largest debt claim for each acquired firm. While data on contingent debt was also gathered, figures for this debt type are not included in any of the analysis as these funds are not used in funding the buyout. Were these funds to be used, they represent 9% of all debt raised in the sample of transactions.

The typical form of contingent debt is a revolving credit facility, which is undrawn at the time of the transaction, but can be drawn on to finance working



capital needs or other cash requirements. Sometimes the contingency may relate to particular capital expenditure (typically referred to as a capex facility) or identified acquisitions where the private equity sponsor wants to follow a buy and build strategy.

In addition to bank debt, buyouts sometimes raise financing from listing bonds and there was only one transaction where payment-in-kind debentures were issued. In all but one transaction, the target companies were delivered to the private equity groups debt free; the assumed debt in the exception case was marginal trade finance relating to transactions with the target's related group companies prior to the buyout. This debt was effectively treated as a vendor loan where the company that sold off the division accepted the loan note in partial consideration. The public to private transactions in the sample rely more heavily on bonds listed in the European debt markets, and tend to use more reduced cash flow securities as opposed to standard bank debt. In addition, it is these transactions that have implemented ground-breaking debt instruments that are not commonly used in the average South African leveraged buyout.



5.2 Findings by Proposition

In the remainder of this chapter the data are presented alongside the propositions initially presented in chapter 3.

5.2.1 Proposition 1: The larger the target firm, the greater the proportion of the total buyout financing package debt will represent

In relation to the size of the target firm, the purchase price or enterprise value was used as a proxy. The findings from the interviews and case study data indicate that there is a positive relationship between the purchase price and the proportion of debt used in the financing package. The data from the case studies is arranged in ascending order of purchase price to illustrate the above finding.

Table 10: Purchase Price and debt usage

Case Study	Acquisition Date	Purchase Price (Rm)	Equity Contribution (R m)	Total Debt (R m)	Debt as %
Car Parts Co	May-10	435	235	200	46%
Engineering Co	Apr-07	550	200	350	64%
Construction Co	Nov-08	608	364	244	40%
Auto Accessories Co	Mar-08	1,032	464	568	55%
Ready to Eat Foods	Jun-07	1,295	335	960	74%
Food & Beverage Co	May-98	1,806	900	906	50%
Supply Chain Co	Jul-07	2,100	900	1,200	57%
Furniture Co	Jun-06	1,375	375	1,000	73%
Food & Beverage Co	Feb-04	2,400	800	1,600	67%
Glass Co	Feb-07	6,200	2,000	4,200	68%
Financial Services Co	Jul-07	8,400	3,300	5,100	61%



While the purchase price provides a relatively reliable proxy for the size of the firm, since the purchase price is often based on enterprise value derived from a detailed valuation of the business or a share price plus premium in the case of listed companies; the data may contain some noise as evidenced by the following quotations.

“In these public to private deals, we often pay a premium to the prevailing price of the company on the JSE. In the case of this specific acquisition, our offer price was at a 40% premium...that was quite expensive in 1998 and even in today’s terms. While we put in a lot of equity, we still needed debt and a lot of it because of the price we paid”.

“Following the boom years of private equity in the country, the price expectations of sellers and buyers were diverged. Sellers were still expecting very high prices while valuations were being revised down by buyers due to uncertainty as a result of the global economic downturn. The premiums that were being asked for were not warranted and those who did deals then certainly paid more than they would have preferred. This of course meant that more debt was used to plug funding gaps where buyers had paid higher prices.”

“We generally buy into businesses that we know we can help grow into formidable players in their industries. As a result we will not be seen going after the mega deals, as for us the key is not how big it is but rather how big it can get with our involvement. Thus we are happy to buy small businesses if we can get them to grow significantly both organically and through acquisitions.”



It is evident from the data that market timing is an active factor not only in the size of deals concluded but also in the structure of the financing packages for these deals, specifically the extent and level of debt finance used.

“Market timing plays an important role especially in the pricing of debt, and this determines the size of our equity cheque in each deal and consequently the number and quality of deals we can conclude.”

“The amount of debt available for a buyout is outside our control but affects the capital structure of our deals. So it goes to the economic theory that says if interest rates are low, you will get more projects as more projects will meet the hurdle rate; and if interest rates are high then you will have fewer projects as the hurdle rate is also high. So in a similar manner, if there is a high availability of debt financing, certain marginal projects become economically viable.”

“The size of company you acquire is important ... smaller deals are great for learning and if you make mistakes they are not too costly; larger companies and acquisitions are preferable because you spend the same amount of time on structuring, negotiating, and post-deal management involvement as you would on a smaller deal. It is also easier to syndicate with others and give the debt providers comfort as they also will club together with other banks to de-risk.”

“It might sound logical but be cognisant of the investment cycle point and at the point you come into acquiring a company. Interest rates also play a factor as they determine your effective cost of borrowing and therefore the cost of the deal. You have to be cognisant of the point at which we are in the cycle, we have done deals where we have put up 60% equity because times were tough



but knowing that we would refinance the debt in 12 to 18 months when the financing markets are more accommodating and borrower friendly.”

Based on the collected data and respondents’ comments, proposition 1 is supported.

5.2.2 Proposition 2: Target firms with attractive growth prospects are financed with a larger proportion of common equity than firms in the maturing and decline stages their lifecycle

In determining the financing structure and mix of instruments, the private equity sponsor firms indicated a trade-off between their equity contribution and use of financial leverage. The general approach to the trade-off is captured in the following quotations.

“If you are buying a high growth company, you would price it differently to buying a low growth company. The trade-off involved is based on our agreement with management, at the time of investment, about how we want to take this business forward. Where you have got good growth opportunities clearly you have to fund that growth, and in order to do that you cannot use that same cash flow that is being generated from the business to repay debt. So therefore when we model the deal, we model the cost of those investments in the growth opportunities, and the expected cash flows into and from those investments, and given that we then model the optimal debt level for our assumptions. So for example, we can't use debt of say 5X EBITDA when we need about 2X EBITDA to fund growth. That trade-off we put into the models



and try to optimise it and build in some headroom in case we are wrong about the growth opportunities”.

“If the growth profile looks good for at least a 5 year outlook and we have conviction in those numbers we increase the size of our equity contribution. We get this conviction as part of our due diligence process, we usually will get management to give us growth projections over 5 years, and then we will take a hair cut off the projections...this can even be up to 20% of the numbers depending on how risky we think the deal is and how well we understand the target's industry. If the deal still makes sense at these levels, we can then be comfortable to run our structuring models based on very conservative assumptions. But the trade-off we always make is between the size of our equity contribution and the ability of the business to service debt during our investment horizon.”

“We generally take stakes in companies where management don't control the company. We assume an active role thus we would look to acquiring more than 25%. We make our returns from turning companies around or introducing a step change in the levels of activity – this is our main source of growth. We have learnt over the years that active management of portfolio companies correlates with the type of returns we make. Thus we want businesses in which we can actively manage our investments and influence the type and quantum of growth.”

"We style ourselves as a growth investor who partners with the entrepreneur or management teams. We have had some involvement in expansion and growth capital but the business has to have had a stable trading history. In terms of



determining growth, we typically perform a bottom up analysis from the start. So we will consider the business first (history, performance, management, their products and services), then the sector, then look at the macro-economic environment for the economy and the sector. We then make deductions on the growth prospects based on that. This generally comes out in detail in the due diligence process, which we run ourselves. This is all related to the price we are willing to pay for the business. Then we model it that way, so 'if I buy the business at price X, I need 10% growth to get to my desired return'. Then determine if that is reasonable for the industry, and the businesses, and how we will get to that growth. We try to understand management's plans, look at our other portfolio companies, the target's competitors and determine if we can get the growth in the environment in which the target operates. "

"Capital intensive businesses with a constant requirement for increasing amounts of working capital are risky to what we do. Therefore, we would not look at a company that is also growing too quickly, these businesses cannot sustain debt."

"As a captive fund, unlike independent funds, our calculation is not how much debt can we raise against company X, given a price, with the residual becoming equity and that becomes our equity contribution. We really try and understand the businesses we invest in, understanding the earnings and earning power so that we can do a proper equity valuation of the business. We also know that there is a difference between price and value; thus we fight very hard to negotiate such that the price we pay gets us the 30% IRR or over 3X money back. If we are happy with the valuation, and we are happy with the price we



have to pay; then we determine the size of our equity cheque, and can then think of structuring debt. If for example, we can't raise enough debt for the acquisition, we will increase our equity contribution and this we find applies to businesses we believe we can grow quickly.”

“We prefer well established businesses with solid track records (at least a 5 year trading history), a good management team that has worked together, stable earnings and a history of good cash flow generation. We have found that the ‘boring’ businesses that have been around for a long time and are showing single digit growth tend to generate large amounts of cash and this bodes well for servicing debt.”

“We consider ourselves to be a large control buyout house, we typically invest in companies with an enterprise value of R 1 billion, but our sweet spot is probably around R 2 billion. In terms of life stage of the ideal target companies, we prefer late stage or mature companies with steady cash flows and good growth opportunities; we try and balance these two. So our typical company will have stable cash flows to service the debt, but also reasonable growth prospects in the target company to achieve organic growth above GDP growth. This is often reflected in the pricing for each company.”

Based on the collected data and respondents’ comments, proposition 2 is supported.



5.2.3 Proposition 3: Target firms with more tangible assets or where the acquirers plan to sell assets after the buyout are financed with proportionally more debt.

The tangibility of the target company's assets is considered a supporting criterion, but LBO sponsors generally have a preference for businesses with tangible assets. Some of the quotations from the respondents include the following:

“The primary means of exiting the exposure and generating returns from our buyouts depends on the cash flows of the business, so we place more emphasis on the business's ability to generate strong cash flows. Tangible security supplements this decision and supports it but ideally we don't like to fall back on security. The biggest issue with relying on tangible security is that the cost of realising that security will introduce significant haircuts on the value of the assets, especially if a large player goes down and goes into liquidation. Our view is that any asset is only worth its value when operating and generating cash flows”.

“It is a lot more comfortable buying a business with fixed assets, property, plant and equipment. We prefer investing in businesses with real assets behind them.”

“Tangible assets have an effect on the valuation, pricing and funding of the deal. It certainly is easier to raise debt funding for a business with physical assets. But we always aim to tie in management so that everyone has an upside.”



"We have found that mid-size services businesses tend to be scalable, once you own the IP it is easier to scale up and we like that. On the other hand, asset rich businesses lend themselves easily to asset-backed finance. As an investor one gets comfort from buying an asset base as there is something tangible we can point to."

"We have done well investing in manufacturing businesses that produce products. Thus we have a preference for firms with tangible assets and produce products instead of services, we find these businesses easier to manage from a performance and forecasting point of view. As it turns out, the banks are also much more comfortable to arrange debt finance for a business that has real assets."

"Our investment committee and the CEO love businesses with bricks and mortar since they have an asset-backed lending background, they call these 'old economy businesses'. You will notice that our portfolio consists of a lot of 'old economy' businesses with lots of tangible assets on the balance sheet. The truth of the matter is, however, when you own a heavy engineering business in the outskirts of Gauteng you are not likely have a long queue of buyers waiting in line to buy it; so you may be in it for years. While it may be tangible and real, making a return via a speedy exit will be problematic. It is better to understand the earning power of the company and evaluate it as a stream of cash flows rather than the tangible asset base. "

Respondents had the following to say about the possibility of selling assets after the buyout.



“This is never a key driver in our thinking; however, for this specific transaction the plan was to sell a number of under-performing group companies while looking for more strategic acquisitions to beef up the company.”

“This is not an active factor in selecting investment prospects but it is a sweetener as we are able to get back some money fairly quickly. This boosts our IRRs massively, especially if this is an investment made early into the fund’s life. Given that, we would be quite bullish about the amount of debt to use in a transaction where we know we can sell assets after the buyout to pay down the debt quickly to ease the pressure on management”

Based on the collected data and respondents’ comments, proposition 3 is not supported.



5.2.4 Proposition 4: Target firms with lower earnings variability and higher levels of free cash flows will be financed with proportionally more debt.

The variability of earnings in target firms has an effect on the valuation, price and consequently the structure of the buyout financing package. It is evident that LBO sponsor firms generally have a preference for businesses with lower earnings variability. Some of the quotations from the respondents include the following:

“Earnings variability is a problem we encounter especially in all cyclical businesses. We would carefully consider how we can protect ourselves from a downward trend in the cycle. This is in light of the limited lifetime of all private equity funds, we just don’t have the time to ride out the cycle. Due to this, you could theoretically end up being a forced seller at the worst point in the cycle - you don’t want that. In theory we can try and adjust pricing (paying a lower multiple) of the deal to cater for the earnings variability however the typical model assumes earnings growth at some fairly constant rate. For example we walked away from an investment opportunity in a business that requires massive expansion capital over the next few years, now at some point in time after all the capital expenditure the business will generate cash but this may not happen before 5 years. We need it to happen before 5 years in order for us to invest in it. The opportunity in the business is great, they are poised to make some decent money but the investment cycle is far too long for us to get involved in it.”

“This is the philosophical difference between public and private companies, public companies target earnings and we target cash. So we prefer cash



positive businesses that generate stable, predictable free cash flows that we can model and forecast within a certain degree of accuracy. These are the types of businesses that a pro-debt house like ours loves.”

“Earnings variability is volatility, and this goes hand in hand with valuation expectations. Earnings variability within a band is manageable but that is an oxymoron because I'm saying I'm happy to take volatility as long as it is safe volatility. Earnings that are highly variable are not good because then you can't time an exit nicely. For the decision to buy, your investment committee will be saying that it might look like a cheap multiple but it is based a lower earnings basis. When you exit you might be on a higher or lower earnings basis, thus you cannot project at what point you will get out. Worse off, when you exit the party that buys from you will want a discount on the price because earnings are so highly variable”.

“We prefer businesses with stable earnings and predictable cash flows based on a 5 year history. This is the primary driver of all our returns from paying down debt to paying dividends”

“We don't buy businesses with erratic earnings profiles. We do however place a lot of emphasis on free cash flows even where earnings grow at a slow rate. We strive to take out costs from the business to compensate for lack of earnings growth.”



In thinking about earnings variability relative to valuations and investment timing, one respondent said:

“Relative to valuation, earnings variability becomes even more important. For example a seller might engage a private equity fund at a time when the company's earnings are at a historical peak and want to insist that growth projections be based on these numbers. This way the valuation conversation becomes fraught with talk of the variability of earnings, to circumvent this we ask for more time. This is to establish the company's natural band of volatility; this has increased since the global financial crisis as buyers are walking away and saying let's talk in 18 to 24 months. ”

In thinking about earnings variability within the framework of risk, one respondent said:

“We would look at the sector in general to determine business risks in the environment and see if we understand them. Then we would look specifically at the company...is it the right player in the industry, and look at company specific risk factors including the variability of earnings.”

Based on the collected data and respondents' comments, proposition 4 is supported.

5.2.5 Proposition 5: The proportion of senior bank debt in the buyout financing package is higher than junior debt securities.

The findings from the interviews and case study data indicate that senior bank debt is proportionally higher than junior debt securities in all the buyouts in the sample. In all the case study acquisitions discussed senior debt constituted a



higher proportion, compared to junior debt, of the total debt package. In transactions where listed debt or preference shares were issued, the amounts involved were treated as senior debt. Table 11 below details the extent of use of senior debt facilities in the buyout transaction in the sample.

Table 11: Buyout usage of senior debt

Case Study	Acquisition Date	Purchase Price (Rm)	Equity Contribution (R m)	Total Debt (R m)	Debt as %	Senior Debt	Senior Debt %
Car Parts Co	May-10	435	235	200	46%	200	100%
Engineering Co	Apr-07	550	200	350	64%	210	60%
Construction Co	Nov-08	608	364	244	40%	244	100%
Auto Accessories Co	Mar-08	1,032	464	568	55%	482	85%
Ready to Eat Foods	Jun-07	1,295	335	960	74%	-	0%
Food & Beverage Co	May-98	1,806	900	906	50%	607	67%
Supply Chain Co	Jul-07	2,100	900	1,200	57%	900	75%
Furniture Co	Jun-06	1,375	375	1,000	73%	1267	85%
Food & Beverage Co	Feb-04	2,400	800	1,600	67%	1226	77%
Glass Co	Feb-07	6,200	2,000	4,200	68%	4200	100%
Financial Services Co	Jul-07	8,400	3,300	5,100	61%	4350	85%

In addition, the following quotations describe respondents' attitude toward the use of debt in the leveraged buyout financing package.

"As far as structuring debt is concerned, we as banks love to see an amortising profile which spreads the risk across the lifetime of the loan. Ideally, all banks want interest to be serviced throughout the lifetime of the facility, even in



respect to the portion of debt that will be settled via a bullet payment. Specific to highly leveraged transactions, we want to see regular interest payments and capital repayments as per the agreement.”

“We are growth investors thus we consider debt as a sweetener, we will never look at debt as the primary driver of our returns. Each deal is structured based on its level of free cash flows. We are not debt junkies, the aim with raising debt is never to put the company at risk of financial distress. We are mindful not to put management under too much stress of debt. We are quite innovative in structuring our deals and we will often try out new instruments (quasi-equity or shareholders' loans) where appropriate but rely a lot on senior debt”

“When the debt markets were good in 2006/7 and banks were willing to lend aggressively (up to 6X EBITDA on senior debt), a lot of debt was used in structuring our deals. But even then we were quite prudent about the amount of debt we use. “

“We structure debt for buyouts on a deal by deal basis. However, in every deal we try and optimise the debt package by trying to keep average costs as low as possible, keeping the covenants as accommodating as possible, trying to stretch out the repayment period as far out as possible. All these may well mean that we sometimes use much more mezzanine or sub-ordinate debt than senior debt in some deals but senior debt still remains the primary means of debt financing”

Based on the collected data and respondents' comments, proposition 5 is supported.



5.2.6 Proposition 6: The likelihood that reduced-cash-flow securities will be used as part of the buyout financing package increases when the proportion of debt in the total financing package is relatively high, when a relatively high acquisition premium is paid, and when substantial future growth opportunities are present for the target firm.

In the transactions where debt financing constituted more than half of the total financing package, reduced cash flow instruments were used to minimise the interest burden on the acquired businesses. Table 12 below details the debt instruments used in these transactions.

It is interesting to note the increasing use of mezzanine debt with a longer maturity than the traditional senior debt, and almost all capital is repayable by a final bullet payment at the end of the loan's term. Remarkably, even some tranches of senior debt have features that are designed to lower the debt service burden of the acquired firms. Such features include capital payment holidays for a number of years after the acquisition, and some debts payable by a bullet payment of up to 50% of the capital. Another interesting feature is the use of quasi-equity instruments like preference shares, which are structured and priced as senior debt.

A common feature in the sample transactions is the issuing of high yield offshore debt, mostly listed in the European High Yield bond markets. The use of these securities seems to have peaked in 2007. Only one transaction made use of toggle debt facilities, in the form of Pay-In-Kind Debentures which have an unusually long term of 10 years.

	Engineering Co	Auto Accessories Co	Ready to Eat Foods	Furniture Co	Supply Chain Co	Food & Beverage Co	Glass Co	Financial Services Co
Year of Acquisition	Apr-07	Mar-08	Jun-07	Jun-06	Jul-07	Feb-04	Feb-07	Jul-07
Total Debt (R m)	350	568	960	1,000	1,200	1,600 ¹	4,200	5,100
Debt as %	64%	55%	74%	73%	57%	67%	68%	61%
Senior Bank Debt (R m)	350	482	960	800	900	1226	4,200	2850
Instrument Type	Bank Debt	Bank Debt	Eurobond	Bank Debt	Bank Debt	Bank Debt (Refinanced with Eurobond)	Eurobond	Preference Shares, Eurobond, PIK Debentures
Instrument A	R210 million senior debt facility, amortising over a 7 year term	Senior A of R 312 million amortising over a 5 year term		Senior A - R 450 million, fully amortising over 7 years	Senior B - R 350m 100% bullet at the end of the 7 year term;	R 726 million, fully amortising over a 7 year term	R 4,200 million high yield bond, 7 year term, Yield of 7,625%. Coupons are payable every 6 months	Redeemable Participating Preference shares worth R 2,850 million (priced as senior debt - amortising and interest payable). Term of 7 years.

¹ The entire debt package for this transaction was refinanced with a Eurobond issue for R 1,600 million 15 months after the acquisition. Interest rate of 8,875% over a 7 year term with coupons payable every 6 months

	Engineering Co	Auto Accessories Co	Ready to Eat Foods	Furniture Co	Supply Chain Co	Food & Beverage Co	Glass Co	Financial Services Co
Instrument B	R 140 million Mezzanine facility, amortising over an 8 year period	Senior B of R170 million with a capital payment holiday for the first 2 years		Senior B - R 350 million, 7 year term, 50% bullet at the end of term; 50% amortising	Mezzanine - R 300m with 100% bullet at the end of the 8 year period	R 500 million, fully amortising over a 7 year term		High yield bridge loan facility R 1,500 million (pays interest only) term of 8 years
Instrument C		Mezzanine facility of R85 million payable by a 100% bullet		Mezzanine facility of R200 million over 8 year term with reversionary right in respect of the security		R 374 million Mezzanine Debt Facility		PIK Note (Debentures) of R 750 million, with interest roll-up over a 10 year term

Table 12: Use of reduced cash flow instruments in deals with debt of 50% or more

Based on the above data, proposition 6 is supported in transactions where debt financing constituted more than half of the total financing package. Considering acquisition premiums paid, this data was readily available for the public-to-private transactions, and in extending the analysis of the data the researcher used pricing multiples (EV/EBITDA) to proxy deal pricing. The results are shown in Table 13.

Table 13: Deal pricing measures and use of leverage

	Car Parts Co	Engineering Co	Construction Co	Auto Accessories Co	Ready to Eat Foods	Furniture Co	Food & Beverage Co	Supply Chain Co	Food & Beverage Co	Glass Co	Financial Services Co
Acquisition Date	May-10	Apr-07	Nov-08	Mar-08	Jun-07	Jun-05	May-98	Jul-07	Feb-04	Feb-07	Jul-07
Purchase Price (R m)	435	550	608	1,032	1,200	1,375	1,806	2,100	2,400	6,200	8,400
Equity Finance (R m)	235	200	364	464	340	375	900	900	800	2,000	3,300
Total Debt (R m)	200	350	244	568	860	1,000	906	1,200	1,600	4,200	5,100
Last 12 months EBITDA (R m)	86	106	152	126	195	145	197	280	330	731	877
Pricing (EV/EBITDA)	5.06	5.19	4.00	8.19	6.15	9.48	9.17	7.50	7.27	8.48	9.58
Leverage (Debt/EBITDA)	2.33	3.30	1.61	4.51	4.41	6.90	4.60	4.29	4.85	5.75	5.82
Premium on Share Price				33%			40%			25%	

Based on the above data, proposition 6 is supported as there is a clear correlation between deal pricing and the use of leverage in the form of reduced-cash-flow securities. The data however, is inconclusive on substantial future growth opportunities and the usage of leverage. The data lacked any reliable proxy for growth opportunities.

5.3 The fully funded transaction – a case study

The delisting and taking private of Financial Services Co by a consortium of private equity firms in 2007 has some interesting features. The deal was funded with an assortment of debt and equity instruments, many of which are not used in the typical LBO in South Africa. In this section, the structure of the financial package employed for this buyout is discussed in some detail. Figure 4, shows a graphical depiction of the financing structure of this transaction.

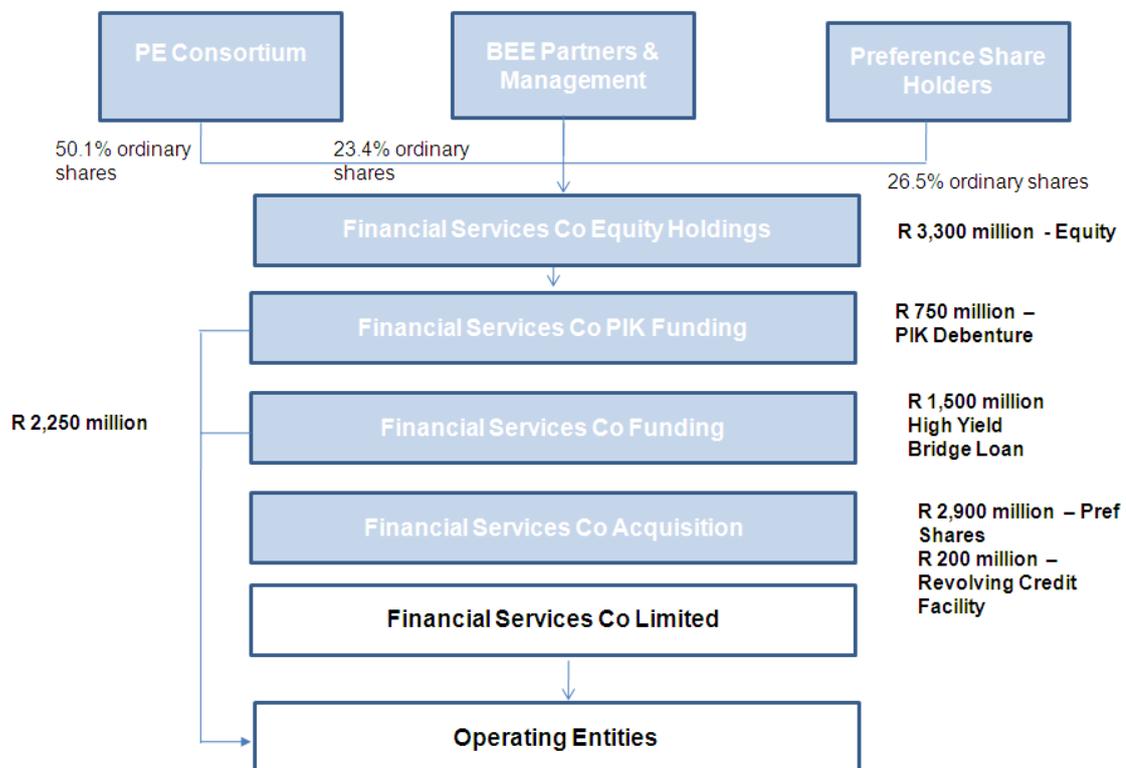


Figure 4: The financing structure of Financial Services Co.

Financial Services Co was bought by a consortium of private equity houses, management and several BEE investment groups for an enterprise value of R 8,400 million. The purchase was financed using R 3,300 million of equity (provided by the consortium, management and BEE partners) and R 5,100



million of debt. The initial debt/equity ratio of the newco was therefore 61% debt and 39% equity, which is fairly typical for the buyouts in the sample. The debt was structured into senior and subordinated tranches as shown below.

5.3.1 Preference Shares

The senior debt facility in the transaction was structured using Redeemable Participating Preference shares worth R 2,850 million issued to a syndicate of three local banks bearing dividends at 85% of the South African prime rate. The preference shares receive a first-ranking guarantee and the repurchase obligation is effectively secured over the assets of Financial Services Co. In particular it is interesting to notice the redemption schedule of the preference shares as it mimics but does not resemble an amortisation schedule of senior debt facilities. These shares were structured to be redeemed on a semi-annual basis, after the third year from issue date.

Table 14: Preference shares redemption schedule over the remaining life of the structure

	30-Nov-10	31-May-11	30-Nov-11	31-May-12	30-Nov-12	31-May-13	30-Nov-13	31-May-14
Amount (R m)	471	127	141	141	164	164	846	846
% of Total	16%	4%	5%	5%	6%	6%	29%	29%

Similar to covenants on traditional senior bank debt, the preference shares are subject to certain undertakings that limit the ability of the company to:

- Enter into amalgamations, mergers, consolidations or corporate transactions;
- Change the scope of its business;



- Incur capital expenditure in excess of 20% of the projected capital expenditure, unless the projected capital expenditure has not been completely used in the financial year, in which case the unused amount can be used in addition to the projected capital expenditure for the following financial year only;
- Incur any financial indebtedness except in the ordinary course of business and for special permitted purposes;
- Give any guarantee or security interest except for permitted guarantees and security interests which were defined at the time of the acquisition; and
- Issue additional equity instruments except for the permitted distributions or grant any loans other than permitted loans.

5.3.2 High Yield Term Loan

In addition to the preference shares, a high yield term loan for the sum of R 1,500 million was raised offshore with JP Morgan and Goldman Sachs as the joint providers and book runners. Pursuant to market conditions in the high yield debt market, a consortium of investors consisting mainly of shareholders acquired the term loan from the original lenders in 2009. As a result key terms to the high-yield term loan were amended including the redenomination of the loan from Euro to ZAR, amendment to the interest rate and additional flexibility in terms of payment of interest provisions. The new loan now bears interest at a fixed 16,8% over a seven year term maturing in 2015. The new loan introduced flexibility by allowing interest repayments to be deferred at the election of the majority lenders – who also happen to be equity holders. In the event that any



interest repayment is deferred, penalty interest of 100 basis points will arise on the deferred interest portion. The term loan is guaranteed by a senior first-ranking guarantee from Financial Services Co PIK Funding secured only by a pledge over Financial Services Co PIK's shares in Financial Services Co Funding, claims against Financial Services Co Funding under reorganisation loans and acquisition debt and any other and future claims of Financial Services Co PIK against Financial Services Co Funding. The term loan also benefits from subordinated guarantees from Financial Services Co Acquisition, Financial Services Co Limited and various operating group subsidiaries. All amounts outstanding on the term loan, together with accrued and unpaid interest, shall become immediately due and payable in the event of a sale of all or substantially all of the assets or business of the group or if a change of control occurs.

5.3.3 Pay-In-Kind (PIK) Debentures

The last layer of debt financing used involved the issuing of 100 million unsecured debentures for a principal amount of R7,50 each by a subsidiary company, Financial Services Co PIK Funding. The debentures bear interest at 17% per annum compounded semi-annually in May and November each year. This interest together with the capital amount is redeemable on the 10th anniversary from the date of issue in July 2017. Financial Services Co PIK may at any time purchase any debentures from any debenture holder at such price or consideration as may be agreed upon between it and the debenture holder concerned. The capital and accrued interest unpaid on the debentures shall become immediately repayable if there is either a change of control in the group



or if there is a disposal of all or substantially all of the assets or business of Financial Services Co PIK and its subsidiaries. Substantially all of the assets or business of the group means more than 50% by value of the total assets or business of the group as reflected in the latest audited annual statements of the group at the time of such disposal.

5.4 Themes identified in interviews

In addition to the insights that relate directly to the study's propositions, respondents also shared insights on recent trends in the private equity industry. The key themes gleaned from the interviews include the evolution in deal sizes, lending criteria used by the banks, debt instruments and industry cyclicalities. The comments below, reflect respondents' thoughts on the trends.

5.4.1 Deal sizes

Respondents overwhelmingly agreed that deal sizes have become smaller due to the increasingly difficult debt and equity capital conditions brought on by the global economic crisis of 2008. This sentiment is captured in the quotation below.

"Before the meltdown, we were heading for mega deal mania I will cite the Edcon buyout as the perfect example with a R25 billion price tag, R19 billion of which was debt. This deal brought about a renewed vigour showing that R 10 billion plus buyouts are possible in South Africa. That opened up possibilities and some companies in the top 40 were becoming viable buyout prospects. We were quite frankly heading towards dangerous territory, debt was readily



available, the economy was growing, there were no liquidations, and interest rates were high but manageable since companies were churning so much cash. The sub-prime crisis effectively put the brakes on the private equity boom in South Africa - at a rather fortuitous point in my view - debt dried up instantly. I don't think we will see R10 billion deals in the near future. The era of the mega deals of 2007 is long gone now, we are not likely to see this again for another 3 to 5 years. Now, we are also seeing seller and buyer price expectations starting to converge which makes for an interesting environment in the mid-market for deals with EV of up to R1 billion.”

This phenomenon, it is thought, will drive industry consolidation and increase the number of syndicated deals as the marginal LBO sponsors battle for survival. As one respondent put it, “The smaller funds are finding it difficult to raise capital and thus I expect consolidation in the market to continue. Of the small funds, the BEE aligned funds will likely survive as they have a key role to play in facilitating BEE in unlisted companies. But we have seen syndication increase quite sharply since the meltdown, as the smaller funds club to go after larger deals to maximise their returns. This may help drive up banks' appetite for lending”

5.4.2 Lending Criteria and Instruments

Respondents had a lot to say about the lending criteria applied principally by banks, and how that has changed since the height of the boom in 2007. There was an overwhelming feeling of conservatism applied by debt funding providers



and this was said to affect valuations and prices with buyers negotiating harder to bring prices down. Some of the key quotations are included below.

“The market is very conservative at the moment; a number of the deals concluded in the last 24 months are being restructured at present. PE houses are scaling back on debt and injecting more equity into their portfolio companies. The sellers (the few there are) are battling to get the prices they would like to command, but this pressure is having an impact on multiples (PE's are in the single digits now) since debt finance is that much harder to raise.”

“We are likely to continue to see stricter enforcement of equity contributions at around the 50% level and leverage multiples will continue to come down to around 3.5 to 4X EBITDA; and not the 6X EBITDA levels we saw in the past.”

“Banks are now quite conservative in the amount of debt they make available to buyout groups. While they will gradually increase the debt they extend for buyouts, this will take some time. We are likely to see levels of senior debt around 3,5X EBITDA staying around for the next few years. We are not likely to see senior debt of 4.5XEBITDA or higher in the near future.”

As a result of this increased conservative stance by debt funding providers, respondents reported a change in the debt instruments used in buyouts. One respondent remarked, "The fancy instruments of the height of the credit crisis have almost disappeared. Banks have now gone back to an old and predictable stance of providing 3X EBITDA as senior debt and that's it. Covenant-lite and toggle type debt structures are almost dead now, we will continue to see more stringent covenants from banks. We have also noticed that some banks have



now started asking for equity either by paying for it or as warrants. They see this as a way of boosting their returns by sharing in the equity upside.”

Another respondent said, “It is now back to basics with debt instruments, I have not heard of something clever of late in the very few deals that are being concluded at present. Deals are now only being concluded at 50:50 debt to equity. The mezzanine instruments we are seeing are different to the type of mezzanine instruments of the past in the 2007/8 period. I think there will be more upside participation by the mezzanine providers; who in the past have not had good returns - earning only interest on some deals before being restructured.” This trend is likely to have an effect on the amount of debt made available for buyouts as well the types of instruments which debt funders will use. As one respondent pointed out, “in public to private deals, we have noticed that the large institutional shareholders want a re-investment option, and some make their sale of shareholding contingent upon this. To facilitate this, preference shares have been used and will likely continue to be used going forward as a source of senior debt” This quote suggests that competition amongst debt funders will increase as non-traditional sources of LBO funding, like public market fund managers, insurance houses and others become involved with buyouts. In response, the traditional debt finance providers are likely to improve their offering. As one respondent put it, “the portfolio view of banking services is coming back into favour quite strongly as banks try to capture more of the economics in each deal... so they will offer attractive debt rates but make it conditional on you using their advisory services. In some instances the credit guys will bring their own corporate finance guys, structuring,



debt derivatives and advisory teams and offer you a package deal to stop you from shopping around. It has some positive aspects for us as we deal with only one bank, a single set of relationships - so you can push the corporate finance guys to talk to their credit guys. On the other hand, because they are in one bank they might not push as hard as they would if they were independent."

5.5 Conclusion

The findings of the qualitative research process are presented above. The more salient comments from the respondents were recorded and grouped under each of the six propositions, supported by data collected from the interviews and secondary data sources. A case study was presented, zoning into more detail on the financing structure of the largest and most complex transaction in the sample. In the next chapter, the findings on each proposition will be analysed and compared with viewpoints from the literature and previous works presented in chapter 2.



6. CHAPTER 6: ANALYSIS OF RESULTS

6.1. Introduction

The purpose of this chapter is to interpret the findings from the data presented in the previous chapter, in light of the literature review. Major themes from the data have been identified and are compared with the relevant literature for each of the propositions.

6.2 Proposition 1: The larger the target firm, the greater the proportion of the total buyout financing package debt will represent

The sample of leveraged buyouts in the study supports the proposition that the size of the target firm influences the amount of debt used in the financing package. In our sample, all deals where the enterprise value was greater than R 1 billion, the amount of debt used to fund these deals was 50% or more when compared to enterprise value.

This phenomenon also tends to hold for deals concluded in 2007, public-to-private deals and secondary buyouts. Admittedly the majority of these deals that dominate the sample were concluded in 2007. However, this spike in debt usage during the boom year of private equity activity globally seems to suggest that there are a few fundamentals that drive the usage of leverage. From the sample in the study, these fundamentals would include:

- a) The pricing of deals and valuation effects on the amount of leverage used;
- b) Market timing behaviour on the part of the LBO sponsors and debt providers; and



- c) Cyclical nature of private equity activity, specifically in the buyout space.

6.2.1 Deal Pricing

In order to make meaningful observations on the pricing of LBOs and the associated effect on the amount of leverage used, the study uses a commonly accepted measure of deal price being enterprise value divided by EBITDA in the 12 months before the acquisition; known simply as the EV multiple. This multiple is an indication of the deal pricing as it compares the enterprise value to the amount of pre-buyout cash flow, in a similar way that a price-earnings ratio would indicate the relative pricing of publicly traded stock. The data is shown in table 13.

The patterns in the data suggest that relative deal pricing increases in tandem with the size of the buyout. The highest EV/EBITDA multiple, at 12.46, is observed in the initial Food & Beverage Co transaction concluded in 1998. The average EV/EBITDA across the sample is 7.49 but when controlling for the outlying deal above the average is exactly at 7. Interestingly all deals with an EV/EBITDA multiple higher than the average, including the transaction with the highest multiple, are either public-to-private or secondary buyout transactions. In addition, these transactions also tend to use higher leverage, as measured by DEBT/EBITDA. Across the sample the average leverage multiple is 4.5 and all the transactions highlighted above have a leverage multiple higher than the average.

This would suggest a relationship between the type of deal, pricing of the deal and the level of leverage used in the transaction. These findings are consistent



with prior work by Kaplan and Stein (1993) for private equity transactions concluded in the US and Europe. Consistent with Kaplan and Stein's conclusions, an inference may be drawn that high valuations drive an increased use of leverage by LBO sponsor firms. Of particular interest in the public-to-private deals, this pattern is consistent with the control or acquisition premium paid relative to the 30 day trading averages before the announcement of acquisitions.

6.3 Proposition 2: Target firms with attractive growth prospects are financed with a larger proportion of common equity than firms in the maturing and decline stages their lifecycle

The expected effect of attractive growth opportunities on the LBO financing decision was consistent with the sentiments expressed by the interview respondents. It must be noted that the data collected for the study lacked a reliable proxy for growth opportunities hence the analysis cannot be corroborated by real company data.

Respondents exhibited an overwhelming preference for investing in businesses that are at mature or even declining stages of their lifecycles. In this context, firm lifecycle may be seen to provide a proxy for the stability of cash flows and the requirements of capital expenditure investments in order to realise growth. While this may be very logical as the stability of cash flows and the absence of large cash draining capital expenditure programmes leads to predictability in terms of debt service coverage; the findings may seem to be at odds with the private equity's industry claimed buy and grow investment thesis. However, respondents also showed a preference for mature companies with organic



growth at conservative levels, generally pegged against the higher of the target company industry or GDP growth rate. The exception to the above came from one of the captive funds as illustrated by the quote below.

“When we first looked at Engineering Co it had an EBITDA of R 175 million, this was almost 4 years ago; during this financial year the EBITDA was just under R 1 billion. Clearly we invested a lot of money in bulking this business up and with careful organic growth initiatives we have grown the earnings....over the years we have invested about R 400 million in capex improvements and acquisitions and this amount is fairly close to what we paid for the business when we got in.”

It must be noted that at the time of the acquisition of Engineering Co, leverage was 64% of the purchase price but 40% of this was in the form of subordinated debt instruments. This would suggest that the LBO sponsor was cognisant of the potential pressure on cash flows that could arise from using amortising debt with scheduled payments.

In addition, the respondents spoke of a trade-off between the usage of risky debt and contribution of a higher proportion of equity. The very real and relevant costs of incorrectly analysing this trade-off manifest in increased risk of company failure should the acquisition be financed with more debt than equity; breaching loan covenants which would inadvertently land up with the LBO sponsor being required to put up more equity; or missing out on capturing the full benefit of growth of the underlying company. The need to mitigate against the risks highlighted above is shown in the increased usage of subordinated debt, which not only has typically longer maturities than senior debt but also often includes interest deferral provisions. If a firm is growing, a postponement



of interest and principal payments will allow the firm more easily to finance that growth in the short run and to realise the benefits thereof before the debt service obligations must be met.

Another alternative explanation of this phenomenon is linked to the proxied relationship between deal pricing and leverage. If a firm is expected to have strong future cash flows relative to current EBITDA, it can in theory sustain higher leverage as measured by debt to current EBITDA. Since cash flows are expected to grow, the firm will also warrant a higher price relative to current EBITDA. This might in turn lead to higher leverage being modelled and even used in the acquisition financing package. This version of events, however, may only hold partially as it discounts debt market conditions which are discussed in section 6.9.

There is also an opportunity cost involved in this trade-off as the larger the equity contribution from the LBO sponsor the fewer future investment opportunities the may participate in. In a very real sense, this risk is often mitigated by the setting of a prudential investment limit in the GP-LP contract, which generally stipulates that no equity investment in a single company may be larger than an agreed percentage of funds under management (usually capped at 20%).

Taken together, then, the findings suggest that the target firm's growth rate affects both the proportion and the composition of the debt in the buyout financing package.



6.4 Proposition 3: Target firms with more tangible assets or where the acquirers plan to sell assets after the buyout are financed with proportionally more debt.

The sample of leveraged buyouts in the study and respondents' comments provide no support for any link between the tangibility of the target firm's assets and the amount of leverage used to acquire the target firm. In essence, proposition 3 is not supported at all. This result was a little perplexing at first, however, on closer reflection it ought to have been expected.

The LBO sponsor, when borrowing, is much less concerned about the nature and value of assets than the traditional borrower would be. They are concerned about future growth and ensuring that they can exit the company relatively quickly. Asset values do not drive the valuation of the target firm, from the LBO sponsor's point of view, but rather the cash flows and market presence. Thus, the interest in the tangibility of the target firm's asset only extends in so far as securing asset backed lending. Given the above, they view lending decisions as being primarily cash flow based as opposed to asset based. This would suggest that they focus on projections and growth in EBITDA, and free cash flows to service the debt. This view is best summed up by the following quotation.

"Asset tangibility helps with getting debt financing at a better rate. Banks like to see physical assets they can attach, and that way they get a lot more comfortable with businesses with property, plant and equipment (PPE). But from our point of view, we look at the free cash flow generation power of the business because in the listed market everyone looks at earnings and we look



at the cash flow generating power - to us cash is king. Thus there is a lot more focus on the cash flow generating power of the target firm as opposed to the strength of the asset base. If you look at our portfolio we have a lot of businesses that have low PPE but generate significant amounts of cash and we have used high levels of debt in the acquisition of all these businesses.”

In addition, it is interesting to note that in a number of transactions the LBO fund does not guarantee their portfolio companies’ debt. This becomes apparent when studying the legal holdings structure of buyouts. In general there is a holding company created above the ultimate operating company in order for this company to guarantee the debt of the portfolio firm. This is because most private equity firms have prohibitions on issuing guarantees to portfolio firms in their GP-LP contracts. The holding company guarantees are often matched by a pledge of stock or equity of the operating company; thereby giving lenders another avenue for foreclosing by forcing a sale of the stock of the operating company should the operating company fall into distress. This pledge of stock is in effect a limited recourse guarantee, limited to the pledge of the stock.

From a lender’s perspective the holding company pledge and guarantee accomplish what the pledge of the portfolio company stock by the LBO sponsor fund does, but does so in a manner that does not run afoul of the LBO fund’s legal limitations.



6.5 Proposition 4: Target firms with lower earnings variability and higher levels of free cash flows will be financed with proportionally more debt

The responses provided by the interview respondents supported proposition 4, in so far as linking the amount of leverage to the variability of earnings of any target firm. This was to be expected as the stability of cash flows has a direct bearing on both the quantum and type of debt employed in a leveraged buyout. This is consistent with the predictions of theory that equates variable earnings to volatility in the public stock markets. It was interesting that respondents saw the link between earnings variability and pricing as shown in the quote below.

“If you have high volatility in the level of cash flows your pricing will be different to a business that exhibits linear cash flow growth. So you then assess the cash flow and create different cases, generally you would create a down-side case, a base case and the target case. You will find that those cases are going to be quite far wide apart, so therefore there is more risk in that and you then have to adjust pricing accordingly. Because of our focus on business risk, we try and understand the underlying business risks to understand the volatility of the cash flows and understand the risk that creates that volatility. Then we would price it in a different manner and look at the outlook where pricing reflects a more stable outlook than the history suggests. This you will find will also impact the type of debt we would use in order to minimise the risk of default.”



6.6 Proposition 5: The proportion of senior bank debt in the buyout financing package is higher than junior debt securities

The sample of leveraged buyouts in the study supports the proposition that senior debt forms a higher proportion of the total debt financing package in buyouts. This is true for the more apparent reason that senior debt is usually priced lower than other forms of debt since it is secured on the assets of the business. Furthermore, most of the senior debt in the sample transactions has a maturity of seven years, which happens to coincide perfectly with the upper end of the average period LBO sponsors hold portfolio firms. For these reasons it may be plausible to conclude that senior debt, being the traditional form of LBO financing, is more easily understood and preferred by LBO sponsors and management of portfolio companies.

An alternative explanation comes from the widely accepted view that debt disciplines management calling them into action and focusing on making debt repayments. However, Jensen (1986) argues that it is not the total amount of debt outstanding as such but rather the amount of debt service payments per period that motivates managers to work harder. Following this line of thinking, the structure or terms of the debt plays an important role in how effectively debt motivates managers. Thus, it can be expected that debt with a shorter maturity (such as senior debt) increases the debt service payments per period and increases the incentives for managers to work harder to increase firm value and make debt service payments.

In addition, senior bank loans are more likely to have restrictive covenants in the debt agreements compared to subordinated or publicly held debt.



Furthermore, private lenders such as banks are more likely to closely monitor managers in the post-LBO firm than trustees of publicly issued debt. Thus, the choice of financing LBOs with more short-term senior debt is likely to play a more important role in monitoring and motivating managers in the post-LBO firm. Therefore, it is plausible that LBO sponsors may chose to use proportionally more senior debt in the financing package because of the monitoring benefits associated with this type of debt. This could not be established in the interviews or case data, and so cannot be relied upon as the main driver of the usage of proportionally more senior debt in financing packages.

It was interesting to note from the sample cases that the larger, more experienced LBO sponsors in fact used proportionally more subordinated debt than traditional senior bank debt. This, in part, could be explained by a theory that suggests that such LBO firms are buyout specialists who have been involved in many LBOs and are thus likely to be more skilled in monitoring managers of firms involved in LBOs. Should this be the case then such LBO sponsors are likely to have a comparative advantage over other types of private equity investors and banks in monitoring managers in highly levered firms, thus lowering the benefits of using tighter debt terms to monitor and motivate managers. If the cost of monitoring management, when performed by LBO fund managers, is less than the cost of using debt with tighter terms and active bank monitoring to motivate managers then such buyout specialists are likely to use less senior debt to finance their LBO transactions. This would insinuate that active monitoring by buyout specialists decreases the monitoring benefits of



senior debt while allowing the LBO sponsor to benefit from the larger, more liquid offshore debt capital markets.

6.7 Proposition 6: The likelihood that reduced-cash-flow securities will be used as part of the buyout financing package increases when the proportion of debt in the total financing package is relatively high, when a relatively high acquisition premium is paid, and when substantial future growth opportunities are present for the target firm.

In order to address this proposition, a subset of the sample data is used to discern some lessons on the usage of reduced cash flow instruments. In the sample, and as indicated in table 13, reduced cash-flow instruments were used in buyouts where the debt finance component was equal to or larger than 50% of the enterprise value. This relationship, while nowhere near conclusive, holds explanatory power and suggests that LBO sponsors are generally weary of loading a huge debt burden on portfolio companies in the immediate post buyout period.

In the majority of the cases highlighted these debt instruments have longer maturity, flexible payment arrangements and are predominantly structured such that the capital is repaid using a single payment commonly referred to as a bullet payment. Historically, the most common type of debt with these features has been mezzanine debt which is often used to bridge the gap between the equity contribution and senior debt. While the transaction data in the study lacked a reliable proxy for growth opportunities, it may be fair to imagine a trade-off similar to that highlighted in proposition 2. LBO sponsors who are weary of putting undue pressure on cash flows by using amortising debt will



consider the usage of high yield debt in their equity-debt trade-off. This is visible in the usage of mezzanine debt in almost all the transactions in the sample.

Due to its subordinated and often unsecured nature, mezzanine debt has historically been priced well above senior or bank debt. This might prove prohibitive from an affordability point of view, as well as in the quantum of debt financing provided by mezzanine debt relative to the total debt package. Consistent with this notion, the sample provides a clearly visible trend of usage of other types of high yield debt mostly in the form of listed high yield debt commonly referred to as junk bonds. Overall, it appears that reduced-cash-flow securities are included in the LBO financing package very much in the situations where one would expect them to be.

6.8 The rise of high yield debt

The sample in this study has transactions that were part-financed using listed high yield bonds. While these instruments are common for very large transactions, they are by no means typically used debt instruments in South African LBO financing. The first issue of a European bond by a South African company was in 2004, in the acquisition of Food & Beverage Co. In 2007, a record number of South African LBOs issued high yield debt listed and traded in Europe; thus bringing this type of debt financing into the fore in South Africa. The common characteristic among the LBOs in the sample that have used high yield bonds is that the proportion of debt in the total financing package is quite high, greater than 60% in all cases. This leads to a possible link between the quantum of debt in the financing package and the need to have flexibility in the



debt service obligations. This view was supported by respondents in all interviews where high yield debt was issued. Some of the comments include.

“For the amount of debt we were looking for the South African banking market could not service us at the time - we needed about 5,5X EBITDA and the best they could do was 3,5X EBITDA and it had to be syndicated between the major local banks. This would have meant that we had to go to the mezzanine market and those guys are just generally expensive. Our advisors at the time told us the timing was impeccable for the European High Yield Market, that market was itching for South African assets as the few that were listed then were trading well above par and servicing their coupons well since they were turning so much cash. So we went for this and the indication that came back was that we could get close to 6X EBITDA easily with no maintenance covenants because the high yield debt market uses incurrence covenant based lending where they lend purely based on cash flows and the only security they take is on the physical assets. This meant that all we had to worry about was servicing our coupon on the bond and servicing the face value at the end of the term.”

The above quotation gives rise to an interpretation of high yield bonds being a supply side phenomenon, reflective of the growing experience of LBO sponsors over time with the creative financing instruments being developed to implement highly levered acquisition transactions. This leads to a discussion on the effect of debt and equity market conditions on the choice of acquisition financing structure.



6.9 The arbitrage opportunity from Debt and Equity Market imperfections

Evidence from the interviews, collected case data and secondary data seems to strongly indicate a link between leverage employed in LBOs and credit market conditions. Inspecting the historical 12 month JIBAR data some interesting patterns become quite apparent. As expected JIBAR was at its highest in 1998 coinciding with the period when Food & Beverage Co was bought off the market. Indeed debt market conditions were quite difficult during this time, perhaps explaining the high level of equity financing used in this acquisition. Incidentally JIBAR reaches very low levels in 2006, then rises marginally in 2007 and climbs further in 2008 as shown in table 15.

Table 15: Historical 12 month JIBAR rates (high, median, and low)

Year	High	Median	Low
1998	21.69	17.69	12.86
2004	8.52	7.83	7.12
2006	9.73	8.34	7.20
2007	11.94	10.53	9.50
2008	14.00	12.53	10.28

If lower interest rates, represented by JIBAR, proxy for debt market conditions and consequently a decrease in the cost of debt capital while the cost of equity remains unchanged then a number of deductions can be made from this. If LBO sponsors feel that a target firm can sustain a certain interest coverage ratio, lower interest rates will lead to a higher choice of debt to EBITDA. This would suggest that when interest rates are low, LBO sponsors view debt as cheap and expect target firms to pay interest on a higher principal with the same level of



cash flows. However, a lower cost of capital will also increase the valuation of the target firm per unit of EBITDA. Then by taking on more cheap debt, LBO sponsors can increase the value of a deal and would therefore be willing to pay more in the transaction, possibly explaining why the LBO sponsors are willing to pay more for deals when debt market conditions are favourable. This would give credence to Baker & Wurgler's (2002) claim and suggest that LBO sponsors are quiet adept at successfully arbitraging debt and equity markets.

6.10 The typical structure of leveraged buyout deals

In light of the analysis in this chapter, it can be concluded that the immediate post-buyout capital structure of the typical South African LBO resembles an inverted pyramid. At the top are large amounts of senior secured debt provided mostly by banks, in the middle is a layer of mezzanine financing, which typically consists of unsecured subordinated longer-term debt raised from private offerings to individual and institutional investors. These instruments will generally have longer maturities than the senior bank debt; and in the larger deals would include off-shore high-yield bonds. At the bottom of the pyramid are relatively small amounts of preferred and common equity, the bulk of which are provided by the buyout group, the management of the newly acquired firm and any BEE co-investors where applicable.

In analysing the transactions in the sample for this study, a clear pattern is observable leading the researcher to suggest a typical deal structure with the following characteristics:



- On average, debt constitutes approximately 50% to 60% of the capital structure of buyout transactions;
- Deal specific financing is arranged, typically involving several tranches of senior and subordinated debt mostly secured by the target company's assets;
- Earnings profiles and forecasts of cash flows over a 5 year period are used to substantiate cash-flow based lending decisions for the unsecured debt used in the transactions;
- Senior debt is generally divided into two or three separate term loans of roughly equal sizes but with different maturities, payment schedules and seniority.
 - There is typically a fixed-term, on average 7 years, loan which is amortised over the term and priced based on JIBAR;
 - The other loans take the form of reduced-cash-flow instruments, which are generally not amortised, with the principal payable in a final instalment or bullet payment at the end of the term.
- In addition, there is a clear use of revolving credit facilities and capital expenditure facilities which are typically not drawn down at the time of acquisition; however should these facilities be used or drawn they would rank as senior debt.



7. CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

7.1. Review of the research project

As a backdrop to the conclusion of this report, a brief review of the main objectives and scope of the research inquiry is necessary. The stated objective of this research project was to understand the determinants of decisions on the extent of leverage used in LBOs, as well as the criteria and instruments used in making up an LBO financing package. In doing so, the research attempted to explain why the observed financing choices were made by individual LBO firms - by identifying the relationships between the characteristics of the target firms and the types of financing decisions that are employed in their acquisition.

The research inquiry was structured into three distinct phases, culminating in the final interviews conducted with thirteen (13) respondents from ten (10) private equity funds that specialise in buyouts. Six propositions were put forward based on literature and prior work conducted in South Africa and other parts of the world. In order to narrow down focus in the interviews, a completed LBO transaction was used as a case study with each interview respondent to create context and relevance. The recordings and notes were transcribed and analysed with the key findings compared to the expected outcomes as per the literature review; the findings were either in support of or refuted the study's propositions. While all primary data was collected in the interviews, additional secondary data from multiple sources was used to supplement the data gathered in the interviews.



The rest of this chapter presents the conclusion to the project, makes recommendations on the considerations in structuring LBO transactions and suggests areas for further study.

7.2. Summary of key points and implications

The private equity industry has become a progressively more critical source of capital and effective governance for companies. The majority of capital raised by private equity funds is used for leveraged buyouts, in which equity from investors or limited partners is enhanced with additional deal level debt financing. Given this context, each buyout executed thus represents, *ex-ante*, a capital structure decision. The *ex-post* result of these decisions is set to have an impact on the newly acquired businesses and the private equity firm for a number of years after the investment has been executed. Taking cognisance of the extent of debt used in buyouts, the key questions for private equity investment professionals structuring LBOs are: how much debt to use and in what form this debt should be.

At a simplistic level the amount of debt financing to use in a buyout may be stated as the difference between the negotiated purchase price and the maximum amount of equity finance the LBO sponsor has available for each transaction. Practically, however, this equation is driven by fundamental macroeconomic and financial considerations. The more salient of these considerations would include the influence of economy-wide fluctuations as a result of business cycles, the availability and cost of debt, and credit market conditions. These may seem like exogenous factors that are unrelated to the



scope of this study; however interview respondents and the analysis conducted in this research project seem to suggest that these factors play a greater role in the financing decisions of LBOs. As implied by the findings of this study, when credit is abundant and cheap, valuations rise accordingly and buyouts become more leveraged. This is consistent with the observation that private equity activity is highly correlated with the liquidity in the market for corporate debt (Axelson et al, 2009); and the predictions of the market timing theory of capital structure.

It therefore follows that during periods of low economic growth or even recession, private equity firms may not only have fewer valuable investment opportunities but they will also have difficulty financing these. Conversely, during periods of rapid economic growth or expansionary times, there will be more valuable investment opportunities than in recessionary times and some bad projects may even be financed in addition to the available good projects. This investment pattern provides an explanation for the common observation that the private equity investment process is procyclical as was found by Gompers and Lerner (2000). This cyclicality is what is often referred to as the boom and bust cycles of private equity.

An essential implication of this result is that returns from investments made during boom periods may, on average, be lower than returns from investments made during poor times. This implication is consistent with recent findings by Achleitner, Lichtner & Diller (2009) that the best IRRs for European LBOs concluded between 1990 and 2006 were obtained from investments made



during the poor economic periods between 1990 and 1993; and between 2000 and 2003 respectively.

Now turning to the form of debt used in LBOs, this study has unearthed observations about firm level characteristics of target companies and how these are matched up to debt instruments. Firm size, lifecycle or stage of development, and profitability were observed to exhibit a positive relationship with the amount and type of debt employed in a LBO. Specifically, these firm level characteristics were seen to provide a proxy for the stability of future cash flows, which in turn leads to predictability of debt service coverage ratios. This predictability not only helps answer the question, '*can this target company handle this much debt?*'; but also allows an opportunity to model a number of scenarios with different debt instruments and assumptions about the future macroeconomic environment. The results of the study highlighted an overwhelming preference for target companies that are larger, more mature, and have stable operating profits. Correspondingly, these preferences were reported to be shared by the traditional lenders to LBO sponsors; this in turn was evidenced by the larger proportion of senior bank debt in the financing package of the LBOs in the sample. While the study lacked a measureable proxy for target firms' growth prospects; growth plans, however, were shown to have an effect on the amount and type of debt instruments used in LBOs. Together with earnings variability, growth plans were seen as an active driver of the decision to use reduced-cash flow debt instruments. These instruments are relied upon to a greater extent when the buyout financing package contains an especially large debt component. The tangibility of a target company's assets



was not seen as a determinant in the capital structure decision but rather a form of asset-backed lending security that may influence the pricing of debt.

7.3. Recommendations for further research

The greatest advantage of qualitative in-depth face-to-face interviews was the depth and quality of information conveyed based on the personal experiences of the high calibre interview respondents. This research project could be used as the foundation for future which would aim to better quantify, where possible, the results obtained herein. While respondents were able to give detailed answers and impart great insights into the work they do; they were limited to an extent in the level of detail they could provide due to the confidential nature of industry.

A number of questions arose around areas closely related to the subject of this research inquiry, but not within the scope of this research project. The topics would be worthy of further research particularly comparing the South African context to international empirical results. The topics include:

- The patterns exhibited by the limited data in the study show a relationship between leverage and the relative pricing of debt, suggesting that market timing plays a factor in capital structure decisions beyond the issuing of equity when stock market prices are high. Thus studying the relationship between the price of debt, proxied by the JIBAR, and the resultant changes in capital structure of both private and public companies would make for an interesting area of future research.
- Investigating the relationship between the returns, in terms of IRR and the number of times the LBO sponsors make their money back, and the



amount of debt used in acquiring portfolio companies would elicit some interesting insights. This could be achieved by picking a large detailed sample of buyouts where access would not be restricted and focusing the research efforts at LBO fund level.

- Lastly, investigating the effects of buyouts on the human capital management and reward systems of portfolio companies could present an interesting topic for future research. The focus on aligning management goals to the LBO sponsor goals should indicate a positive effect on reward systems; while the focus on cost cutting, in the immediate post buyout period, should signal some changes to employment conditions, workforce size, lower research and development, and favouring technological advances to improve output. A longitudinal study across a number of companies that have had LBOs would also elicit important lessons on whether the effects of private equity ownership on companies continue to be felt even after an exit.

7.4. Concluding remarks

Overall the findings of the study are consistent with the predictions of the agency costs, trade-off and market timing theories of capital structure decisions; while little support is found for the pecking order and signalling theories. The results of the study indicate numerous clear patterns in the data that concur with the propositions developed about the likely influences on the decisions involved. These influences lead to the supposition of an underlying model that implies that the decision process, in structuring the LBO financing package, is one in



which the LBO sponsors seek to balance potential leverage related benefits with leverage related costs. The most severe of these costs arising as a result of the agency costs of high levels of debt and the effects of possible financial distress due to excessive debt service obligations.

The impact on all but one of the selected key features of the target firms were found to be in directions predicted by the study propositions. This study has found suggestive evidence indicating that the LBO financing package is designed methodically to respond to differences across firms in their size and maturity, growth prospects, in the variability of their earnings, and to a lesser extent the tangibility of their assets. The prospective cash flow profile of the target firm is a matter of concern for the financing decision. This implies that default risk is still a major consideration in the capital structure decision process. Both the LBO sponsors and lenders seem to make an effort to ensure the match between debt service obligations and operating cash flows in designing LBO financing packages.



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APPENDIX B: Interview Discussion Guide

A high-level draft interview discussion guide is presented below.

General and Background Information

1. Provide a brief overview of your responsibilities regarding private equity investments on behalf of the fund.
2. Does your fund have a preference for:
 - a. Any particular sector in which it makes investments?
 - b. The size, maturity or growth capacity of target companies it invests in?
 - c. Preferred equity ownership percentages in order to maintain control after the buyout?
 - d. Any specific amount or percentage of total price regarded as maximum debt for any single investment?
 - e. Typical holding period of portfolio companies?
3. In assessing target firms to invest in, what specific considerations are made with respect to:
 - a. Target firm growth prospects?
 - b. The tangibility of the target firm's assets?
 - c. The possibility of selling some of the target's assets after the buyout?
 - d. Target firm earnings variability and level of cash-flows?
 - e. Target firm risk profile?
 - f. Identifiable exit strategies (listing, trade sale, secondary LBO or other)?
 - g. Other?



Financing Package Considerations

4. Describe the general considerations made in structuring financing packages for acquisitions.
 - a. Are there any fund-specific goals and philosophies used in structuring financing packages?
 - b. Are there any industry or firm specific benchmarks used?
 - i. Debt to EBITDA ratio?
 - ii. Times Interest Earned ratios?
 - iii. Other debt service coverage ratios?
 - c. Does market timing play an active factor in structuring financing packages?
 - d. Does the economic cycle play an active factor in structuring financing packages?

In the case of acquisition X, as the example,

5. What were the specific considerations that made up the decision to structure the debt financing package?
6. What was the purchase price and what proportion of the purchase price was paid using debt?



7. What debt instruments were used? Discuss the terms and conditions of the instruments used.
 - a. Senior bank debt (
 - i. Number of tranches?
 - ii. Differences in tranches (amortisation, interest rates, bullet payments)?
 - b. Subordinated debt securities - including mezzanine or second lien debt;
 - c. Assumed debt – proportion of the target's existing debt taken on;
 - d. Vendor loans – proportion of purchase price current owners are prepared to take as a loan;
 - e. Contingent loans not drawn down at time of acquisition (working capital, capex requirements); and
 - f. Revolving line of credit.
 - g. Other?
8. Were there any proprietary or non-standard instruments developed to be used in the financing package?
9. Was the level of debt used for this acquisition appropriate?
10. What indicators were used to monitor debt service coverage and covenants?
11. If you had to structure the financing package for the acquisition of X now, what would you change?
12. What emergent trends have you noticed in the industry, in relation to the structuring of financing packages for acquisitions?