

Capital structure decisions: the views of investment advisors

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In this research a survey was used to gain insight into the factors that affect the choice of capital structure, from the perspective of investment advisors. Content analysis of responses to open-ended questions in the questionnaire and interviews showed a clear support for the optimal capital structure theory and indicated theory-based approaches to the choice between different financing instruments. Factor analysis showed that taxation implications, market concerns and financing costs affect capital structure decisions. The results indicate that asymmetric information and signalling are important concerns but provide little evidence regarding the importance of agency considerations.

In hierdie navorsing is 'n vraelys gebruik om insig vanuit die perspektief van beleggingsraadgewers te verwerf aangaande die faktore wat die keuse van kapitaalstruktuur beïnvloed. Inhoudsontleding van die oopvrae het getoon dat daar bewyse is vir die teorie van 'n optimale kapitaalstruktuur en dat teoretiese beginsels gebruik word om verskillende finansieringsmiddele te kies. Faktorontleding het getoon dat belasting, markverwante sake en die koste van finansiering die keuse van kapitaalstruktuur beïnvloed. Die resultate bewys dat asimmetriese inligting en seingewing belangrik is, maar daar is min bewys van die belangrikheid van agentskapoorgewings gevind.

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Introduction

It is widely accepted by practitioners and academics that capital structure affects the value of a firm. Many factors influencing preferences for differing capital structures have been identified. However, the extent to which any of these, often opposing factors, affect a firm's value is a question of great debate. It is also important to understand how firms make decisions regarding capital structure as these decisions affect the cost to the firm of raising funds to finance long-term projects.

In this study the different factors that affect capital structure decisions were identified. Investment advisors were then surveyed in order to establish which of these factors were regarded as important determinants of capital structure and to determine which theory, or groups of theories, best described their views on capital structure.

Theoretical background

There are two main theoretical approaches which offer different explanations for the process by which new debt or equity is raised by a firm. These are the static trade-off theory and the pecking-order hypothesis.

The static trade-off theory of Modigliani & Miller (1958) suggests that a firm's value can be maximized by balancing the value of interest tax shields, resulting from the use of debt, against various costs of bankruptcy and financial embarrassment which increase with increasing levels of debt. Implicit in this theory is the existence of an optimal capital structure for each firm.

One of the major deterrents to achieving an optimal capital structure is the existence of agency costs. These are defined by Jensen (1991) as the loss in the value of a firm, resulting from the separation between ownership and control in widely held public corporations and they reflect management's natural disposition towards growth rather than profitability and safety rather than risk. Harris & Raviv (1991) are of the opinion that managers prefer less debt as high debt levels reduce the amount of 'free' cash available to managers to pursue

growth. Also, high debt levels are typically accompanied by restrictive covenants and more risk. Jensen & Meckling (1976) suggest that even with the existence of agency costs there is an optimal capital structure which will maximize the value of the firm.

While it can be shown that there is an advantage to having debt if a firm has a high marginal tax rate and has income to shield, there is no evidence to date to suggest that agency costs are indeed sizable enough to affect capital structure decisions (Miller, 1991).

The pecking-order hypothesis states that firms raise finance in a specific order. The following is suggested by Brealey & Myers (1988):

1. Firms prefer internal finance (i.e. retained earnings).
2. They adapt their target dividend payout ratios to their investment opportunities, although dividends are 'sticky' (i.e. cannot be changed easily) and payout ratios can only gradually be adjusted to shifts in investment opportunities.
3. Sticky dividend policies, plus unpredictable fluctuations in profitability and investment opportunities, mean that the internally generated cash flow may be more or less than investment outlays. If it is less, the firm first draws down its cash balance or portfolio of investments.
4. If external finance is required, firms issue the safest securities first. They start with debt, then hybrid securities such as convertible debentures then perhaps equity as a last resort.

There are several possible theoretical explanations for why the pecking-order theory should hold. Internal funds obviously carry zero issue costs, and if these are significant, the firm would naturally prefer to exhaust internal funds first. The fact that firms prefer to raise debt before raising equity could be the result of equity being more expensive to issue than debt.

In addition, the costs of raising external finance are not only limited to administrative and underwriting costs. If one considers information asymmetries, then costs include the possibility that the firm will decide not to raise funds and will

therefore pass up positive-NPV investments. This cost is avoided if the firm can retain enough internally generated cash to cover its positive-NPV opportunities.

Furthermore financial managers worry about the adverse signal transmitted to investors when equity is issued. Research by Harris & Raviv (1991) and Youds, Firer & Ward (1993) showed that the announcement of new equity issues typically depressed a company's share price. To avoid this, most projects will be financed using retained earnings, and if more funds are needed, with debt. Disclosures of new debt issues, on the other hand, typically had a neutral or only mildly negative effect on share prices. To minimize the possible negative signalling effects, managers will follow the suggested pecking order.

Another explanation for the pecking-order theory is that of 'Managerial Capitalism'. If ownership and control are separated, professional managers would tend to avoid having to subject themselves to the discipline that raising external finance from the markets demands from them. They 'do not strive for optimal financing decisions, but simply finance by the line of least resistance' (Brealey & Myers, 1988: 434).

In line with this, Stewart III (1991) observed that firms should borrow the maximum available as debt adds value and instills discipline into management, thereby reducing agency problems.

Literature review

While the theories that lead to the identification of factors influencing capital structure are theoretically plausible, empirical evidence has been conflicting.

A study by Marsh (1982) of security issues by United Kingdom companies between 1959 and 1974 focussed on how companies select between financing instruments at a given time. It demonstrated that companies were heavily influenced by market conditions and the past history of security prices in choosing between debt and equity.

Secondly, it provided evidence that companies appeared to make their choice of financing instrument as if they had target levels of debt in mind. Finally, the results were consistent with the notion that these target debt levels are themselves a function of company size, bankruptcy risk and asset composition.

Titman & Wessels (1988) conducted a study on a sample of companies listed on the New York Stock Exchange between 1974 and 1982. They found that firms with unique or specialized products (e.g. which were identified by relatively high levels of research and development expenditure) had relatively low debt ratios. Smaller firms tended to use significantly more short-term debt than larger firms. The study also found some support for the proposition that profitable firms have relatively less debt-to-market value of equity.

Baskin (1989) analysed a sample of 378 firms from the 1960 Fortune 500 spanning the years 1960 to 1972. The study presented evidence showing that debt leverage varied positively with past growth and inversely with profits. In addition, it found that firms which had paid higher dividends in the past tended to borrow more.

Pinegar & Wilbricht (1989) conducted a survey of chief financial officers of the Fortune 500 companies. They found that corporate managers in this sample did not maintain target

debt-equity ratios but tended to follow a financing hierarchy. Most managers did not subscribe to the static trade-off theory and the idea of balancing bankruptcy and tax shields was not regarded as being useful.

Norton (1989; 1991) analysed responses from a survey of chief financial officers of the 1984 Fortune 500. Results showed that tax implications, management's desire for financial flexibility and market concerns affected decisions on capital structure. Little indication was provided on the importance of agency costs, signalling or asymmetric information.

In a South African study, Harry (1990) surveyed the chief financial officers of 38 companies listed on the Johannesburg Stock Exchange. He found that while financial managers believed that optimal structuring minimized the cost of capital, there was little evidence of the use of theory-based strategies to carry this out. The pecking-order approach enjoyed some support among the respondents with emphasis being placed on using retained earnings to finance growth. Somewhat surprisingly the study found that capital structure remained relatively constant over long periods and the relationship between profitability and capital structure was not found to be statistically significant.

Jordaan, Hamman & Smit (1993) examined the relationship between capital structure and a number of different independent variables considered to be representative of determinants of capital structure. The influence of industry classification, size, operating leverage, growth and profitability on the use of debt was investigated, using six different measures of debt. Profitability and operating leverage were found to be the most important.

Research methodology

This research studied capital structure from the viewpoint of investment advisors. They were defined to be senior managers in investment banks and stockbroking firms, who are in direct contact with clients and responsible for shaping capital structure policies. They are also responsible for debt and/or equity placements by companies and are arguably well suited to comment on factors that influence capital structure decisions.

The questionnaire was based on Norton (1989)'s questionnaire. The questionnaire was pilot tested on two investment bankers to make sure that the issues raised were in fact relevant, that it was clearly written, and that it did not take too long to complete. The final questionnaire incorporated suggestions from the pilot test.

Open-ended questions were used where the primary objective was to explore and develop complex issues such as the reasons for using each of the sources of long-term finance and the reasons for private placements.

The closed-ended questions firstly sought to ascertain if there was any predominant philosophy in making capital structure decisions. Respondents were also required to indicate their extent of agreement with various viewpoints on capital structure (See Table 1) on a 5-point Likert scale.

The frequencies of each response to the closed-ended questions were summed up and presented in tabular format. The frequency matrix was analyzed using factor analysis, after

Table 1 Statements regarding capital structure

A	A decision to issue ordinary shares sends an unfavourable signal to the market place concerning future long-term prospects of the firm.
B	Share prices usually decline when equity is issued.
C	The attitude of a firm to the 'bottom line' is relaxed when the debt/equity ratio is comparatively low.
D	Debt and equity financing costs are determined by the market and cannot be affected by management action (e.g. more public disclosure, or agreeing to restrictive covenants).
E	Debt is mainly used as a strategic tool to help lower costs.
F	The use of equity financing would increase relative to debt financing if dividends were to become tax-deductible.
G	The use of debt financing would decrease relative to equity financing if the company tax rate was considerably lowered, say to below 20%.
H	The use of debt financing would decrease relative to equity financing if bond interest were no longer tax-deductible.
I	The decision to issue debt or equity is affected by the existence of a tax-loss carry-forward.
J	New issues of debt and equity are purposely targeted by firms to certain investors (e.g. low risk/return, high risk/return, financial institutions, individuals) as opposed to the capital market as a whole.
K	Firms that are dependent on R & D for their success should have lower debt/equity ratios.

rescaling the data using correspondence analysis (Bendixen, 1991).

Content analysis was used to reduce the data in the open-ended questions to a manageable and understandable form. A set of mutually exclusive, exhaustive and independent categories was constructed for each open-ended question. The frequency of occurrence of each of these categories was then recorded.

In-depth interviews, each lasting between one and two hours, were conducted with five investment bankers and three stockbrokers in order to gain deeper insights into the issues raised in the questionnaire. The candidates for in-depth interviews were selected subjectively, with the selection of respondents based on the likelihood of them offering the contributions sought in terms of provocative ideas and useful insights.

A list of members of the Johannesburg Stock Exchange (as at August 1992) was compiled and the list of investment bankers (as at January 1992) obtained from the Registrar of Banks in Pretoria. Sixty questionnaires were distributed, 45 to stockbroking firms and 15 to investment banks. The interviewees and the recipients of questionnaires were, in the case of investment bankers, general managers responsible for the Corporate Finance Division of the bank. In the case of stockbrokers they were the partners responsible for Corporate Finance or Corporate Finance Research.

The fact that questionnaires were distributed to the entire population would eliminate possible unrepresentativeness if a sample was used. However there could be response bias in that the respondents may in fact have a certain common philosophy and that people who could offer valuable insights might not be inclined to complete a questionnaire.

Results

Twenty two completed questionnaires were returned – 17 from stockbrokers and five from investment bankers. This represents an overall response rate of 37%. This combined with the eight in-depth interviews reflected the views of approximately 40% of the key corporate finance decision makers in the population. No attempt was made to follow up on non-responses and as a result some bias may exist.

The responses to the open-ended questions appear in Table 2, reflecting responses with frequencies greater than 1.

The most common reason for using retained earnings as a source of finance was when equity was perceived to be expensive. The implication is that a rights issue at a low share price would dilute accounting measures such as earnings per share thereby hurting shareholders. This is an accounting-based misconception – despite the fact that each shareholder will own more shares, the percentage ownership and the overall return will not change. This also implies a belief in an inefficient market as in an efficient market the price is equally likely to rise or fall.

The second reason given, when debt is expensive, implies an inefficient market i.e. a misconception that the use of retained earnings is costless. Finally there was a perception that the expansion of internal operations should be funded internally.

External common equity was most frequently used when the share price was regarded as being high. In an efficient market there is no sound economic reason for this being an opportune time.

The most frequent answer for the use of straight debt was to finance a specific project. This possibly reflects the practice of lending institutions who prefer to lend against specific assets. The high level of inflation, the recent volatility of interest rates and the uncertain economic and political future of the country may explain this tendency.

Raising debt when the debt/equity ratio is low is in line with the static trade-off theory. The fact that interest rates are low (but are expected to rise) reflects a belief in market inefficiency. Financing seasonal working capital with long-term debt reflects a conservative financing strategy. If profits are equated to cash flow it makes sense to have more debt as the risk of bankruptcy is low. The tax advantages of debt financing were not specifically mentioned.

The main reason given for the use of convertible debentures was pension funds and life assurers being the main shareholders. This would be a tax efficient way of raising finance. The other reasons mentioned do not appear to be economic reasons.

Preference shares were used if they could be offered at a better price than ordinary shares. However, it can be shown

Table 2 Reasons for the use of each long-term source of finance

	Frequency
Retained earnings	
When equity is expensive (e.g price/earnings ratio or share price is low)	8
When debt is expensive	3
The company is expanding its internal operations	3
External common equity	
When the share price is high	12
When gearing is high	3
To make acquisitions	3
Debt	
To finance a specific project	6
When the debt/equity ratio is low	5
When interest rates are low (but expected to rise)	5
To finance seasonal working capital	4
When company is very profitable	3
Convertible debentures	
If pension funds and/or life insurers are the main shareholders	4
If subscribers can be enticed by the prospect of a high yield	3
If interest rates are perceived to be volatile and rising	3
If the share price is perceived to be low	3
If the recent track record is erratic	3
Preferred shares	
Never issued	5
If they can be offered at a better price than ordinary shares	5
If there is a tax advantage to subscribers	4
To avoid diluting existing control	3
If the company's future dividend paying ability is at risk	2

that the premium raised by issuing preference shares is the NPV of the excess dividend. It is interesting to note that some 25% of respondents did not believe in issuing preference shares.

These findings indicate that in advising companies on sources of long-term finance, respondents regarded the following issues as important: minimizing the cost of capital, protecting the interests of existing shareholders and minimizing the probability of financial distress. There was support for the use of asset-based lending instead of normal long-term debt. The respondents appear to believe in the existence of an optimal capital structure. Agency considerations did not seem to be regarded as important (as the interest of shareholders appeared to be paramount). There appeared to be some support for information asymmetry related issues.

Based on the responses to the open-ended questions there was a perception that markets are inefficient. However, when asked directly, eleven of the respondents believed that the market values shares fairly more than 80% of the time. Nine estimated the percentage to be between 50% and 80% and two viewed market values as being fair less than 50% of the time.

The reasons why the respondents advised client companies to place their equity issues privately were mainly 'strategic' and appear in Table 3.

Table 3 Reasons for private placements

	Frequency
For control purposes	8
To ensure a wide spread of institutional investors	5
To raise the corporate profile of the company	4
To reduce marketing costs	2
If the amount of capital involved is large	2

The results of the question which sought to determine the relative importance of the different factors that theoretically influence the choice of capital structure appear in Table 4.

The results show a clear support for the static trade-off theory. Only two respondents supported the pecking-order hypothesis. Respondents did not support the philosophy of aggressive leveraging (borrowing the maximum available) as suggested by Stewart III (1991), among others.

The results of the factor analysis appear in Table 5. The solution was limited to three factors, given the scree plot of eigen values. The three factors were rotated and captured over 53% of the variation in the data. The factors were qualitatively interpreted as follows:

Table 4 Capital structure philosophies

Statement	Frequency
Try to maximize the tax benefit of debt financing, without over borrowing	18
Take into account the potential market response to new issue of debt or equity	17
Carefully evaluate cash-flow variation given financing choices	14
Issue debt and equity to stay close to a target debt/equity ratio	12
Issue debt when interest rates are low, issue equity when prices are high, even though present needs are not great, in order to build up a long-term funds 'cushion'	11
Issue debt when interest rates are low, issue equity when prices are high, in order to finance capital budgeting projects	9
Choose debt or equity depending on the existence of any differences in firm value between management and the market	8
Maintain a given coverage ratio	4
Follow a hierarchy in which internal funds are preferred to external funds and if securities are issued, debt is preferred to equity	2
Use no long term debt	0
Borrow the maximum available	0

Table 5 Rotated factor loadings

Statement	Factor 1	Factor 2	Factor 3	Communality
A	-.5000	0.7479	0.1432	0.8298
B	0.1126	0.7010	-.1555	0.5282
C	0.4828	-.2675	0.0633	0.3087
D	-.3521	-.3986	-.5194	0.5526
E	0.1210	-.3019	0.7456	0.6617
F	0.6232	0.1100	-.0390	0.4020
G	0.7940	0.0575	0.3301	0.7427
H	0.7328	0.2552	0.0480	0.6044
I	0.1954	0.1170	0.5111	0.3131
J	-.3838	-.0711	0.6821	0.6176
K	0.1641	0.5372	0.0287	0.3163

Factor 1: Tax implications

Statements F,G and H load onto the first factor. They all highlight tax considerations in deciding which type of security to issue.

Factor 2: Signalling concerns

Statements A and B load onto the second factor. They have an underlying theme of signals that are received by the market place. In particular, issuing equity sends an unfavourable signal.

Factor 3: Strategic concerns regarding costs

Statements E and J load positively onto the third factor while statement D loads negatively. They suggest that management can control costs by issuing debt as opposed to equity and by targeting the issues to specific groups of investors.

The identified factors indicate that tax, signalling concerns and strategic concerns regarding costs are regarded as being the important influences on decisions to issue one kind of security and not another. The factors present some evidence for the importance of signalling in capital structure choices. These results do not support the proposition that the presence of debt acts to instill more discipline in management, as evidenced by the rejection by the respondents of the statement

that the attitude of a firm to the bottom line is relaxed when the debt/equity ratio is comparatively low.

Of the eight respondents interviewed, six considered the optimal capital structure theory as being closer to reality than the other theories. The most commonly mentioned important determinants of which financing instruments are chosen (and hence capital structure implications) were tax efficiency, cash-flow certainty and control factors.

Tax efficiency (particularly of debt financing) was considered to be a key factor in capital structure. However, long-term debt was regarded as being linked to a specific project, as opposed to a general issue.

Straight debt was issued predominantly for the short-term only, otherwise project finance was preferred. It was also preferred if interest rates were expected to harden and when the debt/equity ratio was low. Convertible debentures were issued when the share price was low, to entice subscribers by a high yield, particularly institutional investors. External common equity was preferred when shares had a high market value, when the P/E ratio was high and when gearing was high. Preference shares were the security of choice in order to appeal to cash hungry investors, to offer a tax advantage to subscribers, to offer a better price than ordinary shares and to protect existing control.

The issues raised by the interviewees were virtually the same as those resulting from the analysis of the survey questionnaire.

Conclusions

The results show that investment advisors strongly supported the optimal capital structure theory. This finding is not in agreement with the results of Harry (1990) and Baskin (1989), which showed a preference for the pecking-order hypothesis over the static trade-off theory. It could be that the timing of this study (a very deep recession) may have had a significant influence on the results.

Contrary to the results of Norton (1991), there was evidence of the importance of signalling. Raising of funds was sometimes used to improve the corporate profile. The results do confirm Norton's findings that tax implications and market concerns are important factors in deciding on a capital structure.

There was evidence of behaviour consistent with asymmetric information in that there is a reluctance to issue shares which are regarded as undervalued. Cash-flow considerations were important in making capital structure decisions (as indicated by the importance attached to return on assets). There was no support for the aggressive use of debt, or the use of debt to instill discipline in company managers. Agency considerations were not regarded as important.

Recommendations for future research

It is possible that there are significant differences in views between stockbrokers and investment bankers. Because of the small number of investment bankers and stockbrokers this factor could not be studied in this research. The study of such possible differences may yield useful results but this would require interviewing the entire population.

It would also be interesting to study if there are any differences in capital structure practice between tier one and tier two companies and between conglomerate and non-conglomerate companies. The perceived difference in market efficiency between tiers may be an important factor regarding the extent of a firm's gearing.

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