

# Topics In Finance

## Part V—Capital Structure

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### ABSTRACT

*Continuing this series on the theory of financial management, the current article investigates capital structure, offering insight into the roles of stockholder wealth maximization, the risk-return tradeoff, and agency conflicts. Much literature addresses this topic, and some of the most recent literature challenges certain theoretical cornerstones touted in the textbooks, as revealed in this work.*

**Keywords:** Financial management, capital structure, stockholder wealth maximization

### INTRODUCTION

Most current managerial finance textbooks devote considerable time and content to the mechanics of financial management, perhaps neglecting sufficient coverage of the wealth maximization, risk and return, and agency constructs that underlie the nuts-and-bolts content. The current series is designed to counter that deficiency by looking at some of the most important topics as they relate to the financial manager's role. In addition to an introductory article, topics to date have included financial analysis, leverage, and the valuation of stocks and bonds [See Laux 2010 (a), (b), (c), and (d)]. Now we turn to the question of capital structure and the related cost of capital to address questions such as:

- What choices does a financial manager have in constructing the right-hand side of the balance sheet (i.e., the firm's capital structure)?
- Why is capital structure important? How does it influence stockholder wealth maximization (SWM)?
- What theories about capital structure prevail in the academic setting? Is there an optimal capital structure?
- What are the major determinants of capital structure?
- Does capital structure differ among industries? Over time?
- What agency conflicts apply to the topic of capital structure?
- Do disclosure, transparency, and financial reporting matter?

We begin our investigation by establishing the theoretical framework commonly presented in textbooks, then look at how the literature inspects debt and equity financing, and finally offer some advice to the financial manager for tackling the important assignment of designing the firm's capital structure.

### THEORIES OF CAPITAL STRUCTURE

On the most basic level, capital structure refers to the mix of debt and equity used to finance the assets of a business. Short-term debt often is excluded, however, and is treated under the topic of working capital management. Thus, the financial manager is left with term loans (long-term notes payable), leases, bonds, preferred stock, and common stock as the primary tools for financing a firm's profitable projects. In the previous article in this series [Laux 2010 (d)], we looked at the valuation of stocks and bonds, and this becomes important in deriving the weighted average cost of capital (WACC) theoretically used by firms to determine the acceptability of long-term capital investments. The costs of the individual components of the capital structure (a valuation parameter, the returns demanded by debt and equity holders) are weighted according to their proportionality in the capital structure

to calculate the WACC. In theory, by minimizing the WACC, the financial manager would help maximize shareholder wealth. Textbooks offer a visual guide to this concept, the U-shaped cost of capital curve.

One of the theories related to capital structure states that, in the absence of taxes and bankruptcy costs, the composition of the right-hand side of the balance sheet (debt and equity financing elements, including the relative amount of leverage) would not matter—no optimal capital structure would exist. [For the seminal articles in this area, see Modigliani and Miller 1958; Jensen and Meckling 1976; Myers 1977.] But debt-related interest is deductible in arriving at taxable income, thus reducing the cash outflows associated with this form of financing and lowering its cost. The resulting temptation to finance with cheap debt is tempered by the fact that bankruptcy costs (including the threat alone) can drive up the cost of all forms of financing, moving the firm away from some optimal, minimally costly, cost of capital. This explains the U-shaped curve seen in the textbooks.

Most textbooks do not address (or treat only peripherally) the major determinants of capital structure—those economic and psychological elements most likely to have a bearing on the manager’s decisions about the debt-equity mix. In addition to taxes and the costs of potential bankruptcy, the firm’s industry, its size, the liquidity of the assets financed, takeover threats (and protections put into place to prevent such takeovers), managerial attitudes toward risk-taking, information asymmetry, cash flow predictability, aspects of the debt and equity markets, and a number of other parameters influence capital structure. We will discuss some of these items in the literature review to follow. Also, while pursuit of the optimal capital structure ranks high on the financial manager’s “To Do” list, it differs over time and across industries.

Agency theory addresses the possibility that managers will fail to operate in the best interests of the stockholders (or bondholders and other stakeholders, as well). Because debt is cheaper than equity but commits the firm to contractual payments and, perhaps, to covenants that restrict a manager’s ability to run the firm freely, a number of agency conflicts arise. [See Harris and Raviv, 1991, for an excellent description of these conflicts.] A tension exists between debt holders and stockholders, because risky ventures stand to benefit equity holders disproportionately, as the debt holder’s return is fixed. Any excess returns accrue to the stockholders, and they also enjoy limited liability if things go awry. If managers take on value-decreasing investments in their attempt to limit free cash flow and disguise the lack of truly acceptable projects, the value of the debt will suffer more than that of the equity, due to the potential upside gains available only to the owners. Conflicts also are created between managers and stockholders. Managers always want the firm to continue (after all, their jobs are at stake), even when liquidation is preferable. In addition, they always want to invest cash flows, even when dividends are preferable, giving at least the appearance that they are finding good investments on behalf of the shareholders. When the debt and equity financing mix becomes distorted by these agency problems, wealth transfers develop among these groups.

Finally, in theory, full disclosure, transparency, and sound financial reporting should aid in alleviating the information asymmetry that can exist between companies (i.e., the managers) and the investors and creditors. By reducing uncertainty, information dissemination should drive down the required returns of all forms of financing, thus decreasing the cost of capital. Many studies attempt to measure this effect, and, surprisingly, not all find complete support for this assertion. The following section reviews some of the recent literature devoted to capital structure.

## THE CAPITAL STRUCTURE LITERATURE—CHALLENGING THE THEORIES

Investigations of capital structure are too numerous to cover in this brief article, but this section attempts to look at some of the most recent works from the following vantage points: Financing alternatives, factors influencing capital structure, variations in capital structure, the agency aspects of capital structure, and the impact of disclosure on the cost of capital.

### Financing Instruments Available to the Financial Manager

If we assume, for the moment, that capital structure matters (that there is some “right” mix of debt and equity that can minimize the cost to the firm), does the manager’s choice of which debt instruments and which

equity instruments are used also matter? Financial managers consider it a primary duty to read the debt and equity markets and to issue debt when it is cheapest and equity when stock prices are high. The previous article on security valuation discussed these findings. More specifically, studies have shown that features such as convertibility, collateral, and sometimes hands-tying covenants are employed to reduce the cost of debt. Billingsley and Smith [1996] find that "...firms use convertibles...to buy down the coupon rate and thus preserve cash flow." Their results "...confirm a decreasing reliance on convertibles as delayed equity financing" (p. 93). Marquardt and Wiedman [2005] look at the use of an even more rare form of financing, contingent convertible bonds ("COCO"s), which link conversion to common stock price. They find that firms use COCOs to control earnings per share and as a managerial compensation tool while not incurring significant additional costs. Here, financial engineering and managerial creativity apparently combine to enhance stockholder wealth. On a broader level, Jiang [2008] investigates the impact of meeting earnings forecasts on the cost of debt, concluding that it is more important to report positive earnings per share than to beat either last year's earnings or analysts' forecasted earnings. A positive EPS can result in bond rating upgrades and smaller initial bond yield spreads, both advantageous to the firm's cost of capital. Finally, managers often use preferred stock to avoid contractually required interest payments while controlling leverage ratios by including this equity financing in their capital structure; at the same time, no voting privileges are extended to preferred stockholders, limiting their ability to interfere with management. Apparently, managers behave as though the choice of financing instruments matters. In addition, managers must remain cognizant of the risk-return trade-offs as they assume more debt (riskier for the firm, because interest payments are mandatory, but less costly) or more equity (safer, because dividends need not be paid, but more expensive). Now we turn to more specific factors that might affect capital structure.

### Major Determinants of Capital Structure

While all researchers agree that taxes and bankruptcy costs weigh heavily in the formation of capital structure, none truly believes the analysis should cease there; a number of other considerations also influence the debt-equity decision. Harris and Raviv [1991] categorize the determinants of capital structure as agency factors, asymmetric information, markets and competition, and corporate control. They then summarize the major empirical studies and offer the outcomes by category. [For a detailed list of those findings, see the appendix of the current article.] Of the findings, some are particularly noteworthy: Leverage is positively associated with firm value but negatively associated with growth opportunities; issuing debt can increase stock price but issuing stock decreases it; altering leverage (in either direction) generates a positive price reaction; takeover targets increase debt levels and experience increasing stock prices (pp. 305 ff.). This study is highly recommended as a review of the literature prior to 1991.

Baiman and Verrecchia [1996] view investors' desire for liquidity as a determinant, citing the following relationships: "...as investors' potential liquidity needs increase...the cost of capital decreases..." (p. 2) and the "cost of capital falls with more disclosure because the latter increases market liquidity..." (p. 17). Thus investors are willing to accept lower returns in exchange for higher liquidity, and disclosure reduces risk by increasing marketability. In other words, risk and return are (still) positively related.

Categorizing the important factors as taxes, contracting costs, and information costs, Barclay and Smith [2005] outline the theoretical relationships for each and offer the following evidence:

**Taxes** *The theory:* Tax shields encourage debt, but the corporate tax rate is not the only relevant tax—investors face tax consequences on bond interest and stock returns (both dividends and capital gains). Still, some debt is expected to maximize firm value. *The findings:* Taxes "play at least a modest role in corporate financing and capital structure decisions" (p. 15).

**Contracting costs** *The theory:* The costs of financial distress lead to underinvestment, because firms in trouble can't issue more debt, and equity issuance becomes too expensive. Debt helps control overinvestment, because the contractually required interest payments keep free cash flow under control. *The findings:* Leverage ratios vary considerably. (Although averaging 21.0% for the 1950 to 2003 period, a quarter of the firms exceeded 33.5%, while a quarter had ratios below 5.0 %.) Companies "with high market-to-book values had significantly lower leverage ratios"; thus, growth companies do not use as much debt and may well be "underinvesting" (p.13).

**Information costs** *The theory:* Market timing exists; managers use financing decisions to signal their confidence in the firm's prospects (if they are willing to issue debt, they must be pretty sure the investments will be profitable); there is a pecking order (use retained earnings first, then debt, and equity last). *The findings:* "There is convincing evidence of managers' efforts to time equity offerings" (p. 14) but little support for either signaling or the pecking order hypotheses (p. 15).

In a 2006 investigation, Faulkender and Petersen find that, even after controlling for firm characteristics normally associated with debt usage, "...firms that have access to the public bond markets, as measured by having a debt rating, have significantly more leverage...35% more debt" (p. 45). Alti [2006] finds that "...hot-market IPO firms issue substantially more equity, and lower their leverage ratios by more, than cold-market firms do. However, immediately after going public, hot-market firms increase their leverage ratios by issuing more debt... (p. 1681), virtually nullifying the impact. Finally, Sibilkov [2009] finds that leverage is positively related to the firm's asset liquidity, because less liquid assets are more difficult to liquidate and cost more to sell, resulting in higher costs of liquidation, bankruptcy, and debt (p. 1173). In the end, firms with more liquid assets can (and do) assume more debt. This result is "...consistent with the view that the costs of financial distress and inefficient liquidation are economically important and that they affect capital structure decisions..." (p. 1174). With some knowledge of the potentially important factors influencing financial structure, we now turn to the question: Does capital structure differ among industries and/or over time?

### Capital Structure across Industries and Time

Many studies address how capital structure varies, comparing countries, industries, and time frames. According to Rajan and Zingales [1995] leverage is similar across G-7 countries as are the factors that are correlated with firm leverage. Jensen and Meckling [1976, as cited in Harris and Raviv 1991, pp. 301-02] make a case for differing capital structures among industries, arguing that firms in industries subject to project riskiness will incur higher debt costs (because debt holders will build a risk premium into their demanded return) and use less debt. In addition, highly regulated firms such as public utilities and banks will be more highly levered, as their debt holders enjoy the protections offered by regulation. Firms in mature industries, where slow or negative growth is optimal and large cash inflows still exist, will have more debt. Bradley et al. [1984] link leverage to earnings volatility (with more volatile earnings producing lower debt usage) and find that the "intensity of R&D and advertising expenditures is also related inversely to leverage" (p. 876). Thus, the industry strongly influences the use of leverage. Most empirical works claim that firms actually employ less debt than would be optimal, but Ju et al. [2005] disagree, calculating a target debt to total capital ratio of 15.29% (based on the median firm in the Standard and Poor's Compustat database) and an actual ratio of 22.62%. As to whether firms adjust towards some optimal structure, the authors contend that the "costs of moderate deviations are relatively small, suggesting that a policy of adjusting leverage infrequently is likely to be reasonable for many firms" (p. 259), an aspect addressed further in the following paragraph.

A number of studies investigate whether capital structure seems to differ over time—whether firms rebalance their debt-equity mix on a regular basis to obtain some "optimal" balance. Opinions vary. Contending that managers make few capital structure changes, Baker and Wurgler [2002] suggest that capital structure is the cumulative outcome of timing debt and equity markets; firms do not rebalance towards an optimal capital structure. Not so for Lemmon et al. [2008], who state that the factors influencing capital structure tend to be largely stable, and convergence towards a particular debt level is common, but "... active management of leverage ratios is at least partially responsible for the mean reversion in leverage ratios" (p. 1577). Leary and Roberts [2005] claim that firms actively rebalance, but adjustment is not costless, so "it may be suboptimal to respond immediately to capital structure shocks" (p. 2576). O'Brien et al. [2007] offer advice on how firms should take advantage of misvalued debt and equity using debt and equity swaps. This tactic leads to the existence of a short-term optimal capital structure that pertains as long as the valuation error continues. In defense of the proposition that managers actively rebalance their firms' capital structures, Byoun [2008] investigates which firms rebalance and when. The results suggest that, when firms have above-target debt and a financial surplus, they make the most significant adjustments and that they are "more likely to reduce debt than equity in order to preserve the debt capacity for future financing needs and to avoid the higher costs of re-issuing equity" (p. 3070). Strebulaev [2007] contends that, because of frictions, firms infrequently adjust, and most empirical works do not appropriately take this into consideration.

Average leverage measured over time “tends to be larger than the leverage measured at refinancing points” (p. 1751), so researchers have underestimated leverage and erroneously have arrived at the conclusion that firms are, in general, under-levered. Whether the manager has a propensity to over- or under-lever is at the heart of the next question: What role does agency theory play in questions of capital structure?

### **Agency Conflicts and Capital Structure**

Agency problems associated with capital structure appear in a number of forms in the literature. Some articles investigate how management behaves when takeover is possible, others look at the area from the perspective of shareholder rights more generally, while still others view the area from the perspective of managerial entrenchment, all aspects of corporate governance. Once again, Harris and Raviv [1991] provide an excellent description of the tensions that exist among the various stakeholders. Garvey and Hanka [1999] find evidence that managers take on more debt when threatened with a hostile takeover. If the research is correct that firms are under-levered, this action might be a good thing. The implication is that antitakeover laws encourage firms to take on less debt, and this article shows that protected firms substantially reduce their leverage ratios after they are covered by antitakeover laws. Klock et al. [2005] hold that antitakeover governance provisions lower the cost of debt financing, and “although not beneficial to stockholders, are viewed favorably in the bond market” (p. 693). Jiraporn [2007] finds “an inverse relation between leverage and shareholder rights, suggesting that firms adopt higher debt ratios where shareholder rights are more restricted” (p. 21). That is, firms with weak shareholder rights incur higher agency costs and thus carry more debt to alleviate those costs (by keeping the manager’s relative equity stake higher, minimizing the consumption of perks, and reducing the free cash flow problem, p. 22).

Although various definitions of managerial entrenchment exist (some related to share ownership, others to tenure, and still others to the governance structure and its enforcement), Berger et al. [1997] use a combination of ownership, compensation incentives, and monitoring as their basis for defining entrenchment. The authors discover that (1) “entrenched CEOs seek to avoid debt,” (2) “leverage levels are lower when CEOs do not face pressure from either ownership and compensation incentives or active monitoring,” and (3) “leverage increases in the aftermath of entrenchment-reducing shocks to managerial security, including unsuccessful tender offers, involuntary CEO replacements, and the addition to the board of major stockholders” (p. 1411). Lundstrum [2008] shows that entrenched managers (defined by the magnitude of share ownership) tend to reduce leverage more when issuing securities and that the market reaction is more negative when managerial ownership is high. The upshot of all this is that the markets know managers dislike leverage and that they (sometimes) are unwilling to maximize shareholder welfare in this area.

So what are the stockholders to do to combat this proclivity? A common action is to put covenants in place that limit managers’ ability to shift capital structure in non-value-maximizing ways. Chava et al. [2010] look specifically at debt covenants, finding that these reduce the cost of debt. In addition, they find that “managerial entrenchment and the risk of managerial fraud significantly influence the use of covenants” (p. 1120). As other examples that might involve covenants, entrenched managers are more likely to resist paying dividends (a covenant commonly imposed by bondholders) and will fight for antitakeover covenants. As Hackbarth [2008] points out, managers can be overly optimistic and/or overconfident, and they might inappropriately choose higher debt levels to fund promising projects. Their biases can be related to both growth (profitability) and risk (variability of expected returns). In the first case, they believe the projects they have chosen will generate higher returns than the market is valuing, and they become reticent to issue equity, issuing debt instead. In the second case, they underestimate the riskiness of future earnings streams and believe debt is undervalued in the market; here, they will be less likely to issue debt. The author concludes: “Mildly biased managers make capital structure decisions that are more in the interest of shareholders, while extreme managerial biases are detrimental to the firm” (p. 847). But it is not at all a one-way street. Sometimes shareholders are too optimistic about the investment prospects of the firm and want managers to take on debt inappropriately; covenants can combat this propensity. On the whole, covenants offer both rewards and costs; at some point, additional covenants bind the hands of those who would serve. As you can see, agency theory plays a major role in actions related to capital structure. In addition to managerial actions related to the debt-equity mix, managers’ willingness to disclose information about leverage and the possible market impact often register on researchers’ radar, as outlined in the following section.

## The Role of Disclosure in the Capital Structure Literature

While a number of studies support the value of disclosure in driving down the cost of capital, exceptions appear in the literature as well. Theory suggests that investors will reduce their demanded return if they are more certain about the financial condition of the firm in which they are investing. This applies to both debt and equity holders. For Sengupta [1998], "...the relative importance of disclosures is greater in situations where there is greater market uncertainty about the firm" (p. 459). Botosan [2006] argues that increased disclosure decreases the cost of equity capital because it decreases both investors' estimation risk and information asymmetry. Furthermore, Lang and Lundholm [2000] claim that firms use disclosure to hype equity prior to issuance, a tactic that generates negative returns for new equity buyers and a lower overall cost of capital for the firm (albeit with a transfer of wealth from new to old stockholders).

While the quantity of disclosure receives a great deal of defense in empirical works, however, both the timeliness and the quality of the disclosure appear to matter at least as much. Botosan and Plumlee [2002] qualify the positive impact of information dissemination, holding that, while the cost of capital decreases with annual disclosure, it increases with the level of timely disclosure. Managers often argue that volunteering information between annual reports increases stock price volatility, thus driving up the demanded return, which might explain this finding. However, Gietzmann and Ireland [2005] disagree, finding "a significant negative relationship between timely disclosure and the cost of capital" (p. 632). Judging quality by the degree of detail, timeliness, and clarity of disclosures as measured by the Financial Analysts Federation Corporate Information Committee, Sengupta [1998] finds that "firms with high disclosure quality ratings from financial analysts enjoy a lower effective interest cost of issuing debt" (p. 459). Lambert et al. [2007] also believe increasing the quality of disclosure reduces the costs of financing the firm, because low quality information increases the market's assessment of the variability of cash flows. In addition, as pointed out in Ashbaugh-Skaife et al. [2009, p. 2], Lambert et al.

*...show that the quality of information systems, which includes the effectiveness of internal controls over information and assets within the firm, has an effect on firms' real decisions, including the assets appropriated by management. Management's appropriation of firm assets reduces the expected value of cash flows to investors, thus contributing to an indirect effect on firms' cost of equity.*

This idea is quite important to Ashbaugh-Skaife et al. who investigate the effect of SOX-imposed internal control deficiencies. They report that, when firms remedy those deficiencies, the cost of equity falls significantly (from 50 to 150 basis points, p. 1). Francis et al. [2008] maintain that firms with good earnings quality disclose more voluntarily, thus bringing causality into question. While they find that "more voluntary disclosure is associated with a lower cost of capital... the disclosure effect... is substantially reduced... once we condition on earnings quality" (p. 53). They warn that "tests that do not control for earnings quality may find significant relations between cost of capital and disclosure, but they may be largely driven by the omission of the underlying...construct—earnings quality" (p. 55). In short, those who disclose more have good things to report and would have a lower cost of capital anyway.

On the contrary side of the "disclosure is good" argument, Gao [2010] contends that disclosure quality only improves investor welfare under limited circumstances (when the adjustment cost associated with new investment is low and profitability is high). The author also warns that "...disclosure quality could increase cost of capital when it increases the overall risk of the firm's cash flow" (p. 3), an argument that aligns with Botosan and Plumlee [2002], cited earlier. Christensen et al. [2010] say that releasing new information is a "wash"—the cost of capital increases prior to the release and decreases after the release, thus having no net impact.

Three other articles offer interesting takes on the role of disclosure in capital structure. Easley and O'Hara [2004] conclude that the more private (versus public) information investors perceive, the greater the cost of equity capital (because private information disadvantages the uninformed external investors). The authors state that firms can influence their cost of equity capital by meeting high accounting standards (affecting both the precision and the quantity of information made publicly available), developing ("attracting") an active analyst following, and listing in markets perceived to have good information and efficient pricing. Gietzmann and Ireland [2005] find a negative

relationship between the quality of disclosure and the cost of capital and note that companies that make aggressive accounting choices (discretionary accruals that help to manage earnings upward) suffer higher costs of capital. Finally, Hribar and Jenkins [2004] investigate the impact of accounting earnings restatements on the cost of capital. Restatements of income pack a double whammy, because they “lead to both decreases in expected future earnings and increases in the firm’s cost of equity capital” (p. 337). That is, they lower the investors’ perception of the earnings quality and increase their required rate of return. Getting the accounting right—the first time—prevents unfavorable adjustments in the capital markets. On the whole, as you can see, researchers are not in complete agreement about the value of disclosure in reducing the cost of capital.

### **THE BOTTOM LINE—ADVICE FOR THE FINANCIAL MANAGER**

The complexity of capital structure theory, as revealed in the previous sections, makes it challenging to offer sound advice to the financial manager, but one might consider the following actions as falling in line with stockholder wealth maximization.

- Learn as much as you can about the more esoteric financing instruments; use them wisely but sparingly.
- Use some debt, and try to issue it in favorable markets.
- Use the guidance of cost comparisons to benchmark firms in your industry to determine whether you are at least approaching the minimum cost of capital.
- Do your best to estimate your real cost of capital and use it appropriately in weighing capital budgeting projects. Do not be guilty of investing in negative NPV projects (overinvestment).
- Compare your level of leverage to the industry. Ask: How liquid are our assets? How much operating leverage do we carry? How certain are our cash flows? Is adjustment warranted?
- In adjusting your capital structure, be mindful to maintain your access to capital markets (both debt and equity). Pay attention to whether debt is too high or stock should be repurchased, especially when free cash flows exist.
- Permit some covenants, but do not allow the cost of those agreements (including the lack of sufficient flexibility to manage the firm) to exceed the savings in lower interest. Don’t overprotect yourself; offer well-considered arguments that serve the firm.
- Disclose whatever is necessary to allow the investing public to value your debt and equity appropriately; minimize the perception of risk (including the risk associated with your silence). Consider both the quantity and the quality of disclosure, including timeliness.
- Keep your accounting standards up and aggressiveness (earnings management) down.
- Ask yourself (and answer honestly) the following questions: (And, yes, this is hard advice to take...)
  - Am I an “entrenched manager”? Is it negatively influencing my financing decisions for the firm?
  - Am I afraid of takeover and, if so, why? Can I make value-increasing decisions that might prevent takeover yet benefit shareholders?
  - Am I overly optimistic about future cash flows? Do I tend to underestimate the variability of those cash flows? Have I put in place good managers to help with these estimations (or just replicated myself)?

The list is long, the assignment complex, the challenge daunting, but capital structure decisions are among the most important in determining the long-run viability and wealth-maximizing potential of a firm. Remember, the resulting cost of capital determines which projects a financial manager should accept, the next step in the pursuit of stockholder wealth maximization. We visit this topic in the next article in this series.

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**APPENDIX—SUMMARY OF HARRIS AND RAVIV [1991] FINDINGS**

Agency factors

- Leverage is positively associated with firm value, default probability, extent of regulation, free cash flow, liquidation value, takeover attractiveness, and the importance of managerial reputation.
- Leverage is negatively associated with growth opportunities, interest coverage, the cost of investigating firm prospects (a function of information asymmetry), and the probability of reorganization following default.

Information asymmetry

- Issuing debt can increase stock price; issuing stock decreases stock price.
- Altering leverage (in either direction) generates a positive price reaction.
- Only limited support exists for the pecking order theory (in which managers first prefer internal financing in the form of retained earnings, then debt, and finally stock issuance).
- Leverage increases with information asymmetry, and leverage is positively related to value.

Markets/competition

- Oligopolists tend to have more debt than monopolists or firms in competitive industries, and the debt will be long-term.
- If collusion is important, debt is limited.
- Debt capacity increases with elasticity of demand.
- Unique products and reputation for high quality leads to less debt.
- Unionized firms and those whose workers have easily transferable skills should have more debt.

Corporate control/takeovers

- Takeover targets increase debt levels and experience increasing stock prices.
- Leverage is negatively related to whether a tender offer succeeds.
- Targets of unsuccessful tender offers have more debt than targets of proxy fights; in the latter, leverage is lower when the incumbent remains in control.
- Targets that are more costly to take over have less debt but capture a larger premium if a takeover occurs.
- Firms that have greater potential takeover gains have more debt.