

EXPLAINING FIRM CAPITAL STRUCTURE: THE ROLE OF AGENCY THEORY VS. TRANSACTION COST ECONOMICS

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The study of capital structure has increasingly gained importance in strategic management research. Paradigms derived from organizational economics have also gained popularity in explaining firm actions. Agency theory and transaction cost economics represent two such paradigms that rely on the notion of market imperfections. Notwithstanding the similarities between them, these two offer different explanations of the role of debt and equity in a firm. The governance abilities of the financing structures and the nature of assets of the firm provide two key sources of differences. Viewing capital structure from transaction cost economics gives rise to predictions that are contradictory to those presented by agency theory. It is argued that the extant evidence mainly supports the transaction cost viewpoint. Two organizational phenomena—leveraged buyouts and product diversification—are used to highlight the comparison.

INTRODUCTION

Capital is a critical resource for all firms, the supply of which is uncertain. This uncertainty enables the suppliers of finance to exert control over the firm (Stearns, 1986; Stearns and Mizuchi, 1993). The two major classes of financial liabilities—debt and equity—are associated with different levels of benefits and control. Questions related to the choice of financing have increasingly gained importance in strategic management research. It has been suggested that the capital structure of a firm results from managerial risk-taking propensity (Barton and Gordon, 1987, 1988), is affected by corporate governance mechanisms (Chaganti and Damanpour, 1991; Stearns and Mizuchi, 1993), and influences the diversification strategy of a firm (Chatterjee, 1990; Chatterjee and Wernerfelt, 1991).

The study of capital structure has been traditionally carried out by researchers in the disci-

pline of finance. Modigliani and Miller (1958) were the first to raise the issue of capital structure relevance. They argued that, under certain conditions, the choice between debt and equity does not affect firm value, and hence, the decision is 'irrelevant'. These conditions included, among others, assumptions about the absence of taxes, of negligible transaction costs in the capital market, and of no information asymmetry between various market players. Subsequent work by financial theorists is driven towards relaxing these assumptions to provide several hypotheses for the capital structure decision (see Harris and Raviv, 1991; and Myers, 1984, for reviews). Firms do differ in their capital structures and, as theories based on perfect markets are unable to provide satisfactory explanations, it is the imperfections in the market that become more important (Miller, 1989).

This paper examines two explanations of capital structure based on market imperfections, namely those based on agency theory (Jensen and Meckling, 1976) and transaction cost economics (Williamson, 1975, 1979). Dissatisfaction with traditional neoclassical precepts of market clear-

Key words: capital structure; transaction cost economics; agency theory

ing have led to the development of these two approaches of incomplete contracting. Complex exchanges often differ from the assumptions made in neoclassical economics; two such attributes being information asymmetry and the potential for opportunism (Barney and Ouchi, 1986). Agency theory and transaction cost economics were developed to address these issues, although their emphasis differs somewhat (McGuire, 1988; Reeve, 1990; Robins, 1987; Yarbrough and Yarbrough, 1988).

Strategic management and capital structure research

Agency theoretic and transaction cost economizing issues are likely to provide two routes for the integration of strategic management and finance (Oviatt, 1984). While some believe that the two disciplines are based on very different paradigms, and thus integration is difficult (Bettis, 1983; Bromiley, 1990), other scholars hold that these differences may have been overstated (Barton and Gordon, 1987, 1988; Peavy, 1984). Nevertheless, a common viewpoint held by all is that financial decisions are important from a strategic perspective, and should be included in the domain of strategic management research (Bromiley, 1990; Sandberg, Lewellen, and Stanley, 1987). Moreover, capital structure decisions are also likely to affect a firm's competitive position (Balakrishnan and Fox, 1993). Following this premise, this paper builds on research in both disciplines to suggest that financial strategies may be influenced by a firm's corporate strategies.

The agency theory viewpoint of debt has had a strong influence on strategic management research (Rumelt, Schendel, and Teece, 1991). Some scholars (e.g., Hitt and Smart, 1994; Rappaport, 1990), however, have questioned the theoretical standing of this viewpoint and argued that it may lead to possibly harmful implications for firm managers, such as the excessive use of debt. On the other hand, others have suggested that transaction cost theory is a powerful viewpoint by which to examine capital structure (Balakrishnan and Fox, 1993). From a conceptual perspective, therefore, it becomes important to carry out a comparison of the two theories, especially regarding their explanation of firm leverage.

Transaction cost and agency theories share

similarities along various dimensions. The notion of opportunism and self-interest is a common dominant assumption (Eisenhardt, 1989; Oviatt, 1988; Williamson, 1988). This behavioral feature, in the presence of uncertainty, leads to conflicts arising from a divergence of goals between contracting parties (Jensen, 1983; Jensen and Smith, 1985; Yarbrough and Yarbrough, 1988). The focus is on the incentive systems and governance mechanisms that work towards economic efficiency in the presence of this conflict. The result is the setup of an efficient contracting mechanism that serves to minimize (agency or transaction) costs.

Notwithstanding these similarities, several conceptual differences exist between agency theory and transaction cost economics. As the two present a coherent and internally consistent approach to theory development, they represent two different research paradigms (Kuhn, 1970). It has been suggested that pluralism in paradigm development—presence of multiple theoretical lenses—is a necessary condition for the advancement of knowledge in organizational sciences in a systematic manner (Cannella and Paetzold, 1994). Such advancement, however, also requires that researchers achieve some degree of consensus as to the acceptability of the various competing paradigms (Kuhn, 1970; Pfeffer, 1993). If one paradigm is to be selected over others, however, it should be better than its competitors at solving research problems. That is, it should demonstrate a higher level of predictability in various phenomena (Kuhn, 1970; Weick, 1979).

Strategic management researchers have yet to systematically examine the implications of viewing transaction cost economics and agency theory as competing paradigms. Viewing organizational phenomena from an agency and a transaction cost perspective may lead to different predictions. This paper first argues that although the two paradigms share several similarities, substantive conceptual differences arise when they are applied to firm capital structure. Following this, it is shown that contradicting predictions often emerge when the role of debt, and its relationship with firm strategy, is considered. The contradictory predictions are then tested by drawing on empirical evidence from existing research to examine the relative predictive power of the two paradigms. Thus, this paper adopts the approach suggested by Kuhn (1970) to advance knowledge, i.e., to examine

the predictability of competing paradigms by cumulating existing research evidence.

TWO ORGANIZATIONAL ECONOMIC VIEWS ON CAPITAL STRUCTURE

The capital structure of a firm is the result of the transactions with various suppliers of finance. These are complex exchanges associated with the same difficulties that may lead to market imperfections (Yao, 1988). This section discusses the agency and transaction cost perspectives on capital structure. Brief explanations of the two perspectives are followed by a comparison between them.

An agency theory perspective on capital structure

Agency theory is chiefly interested in the design of alternative governance structures to mitigate the agency conflict arising from the possible divergence of interests between shareholders (principals) and managers (agents) (Berle and Means, 1932; Jensen and Meckling, 1976). Managers have incentives to pursue strategies that reduce their employment risk (Amihud and Lev, 1981), or increase firm size resulting in greater compensation (Baker, Jensen, and Murphy, 1988; Donaldson, 1984). Consequently, they may adopt nonprofitable investments, even though the outcome is likely to be losses for shareholders. This agency cost is likely to be exacerbated in the presence of free cash flow in the firm (Jensen, 1986).

The agency theory viewpoint presents debt as a governance device useful in reducing the conflict (Jensen, 1986). The creation of debt reduces the agency costs of free cash flow by reducing the amount available to managers. Managers are contractually bound to repay the interest payments. If they spend the free cash on wasteful expenditures, the probability that the repayment schedule will be met decreases. In case of default, debtholders may take the firm to bankruptcy court and get a claim over its assets. Managers would lose their decision rights and possibly their employment in the firm. This threat prevents managers from undertaking wasteful actions and they aim to utilize assets efficiently, increasing firm value. Therefore, the control role of debt

lies in decreasing the amount of free cash flow available to managers by making them disgorge it to investors (Jensen, 1986). This explanation of the role of capital structure is presented in Figure 1.

A transaction cost perspective on capital structure

Transaction cost economics is concerned with the governance of contractual relations in transactions between two parties (Coase, 1937; Williamson, 1975, 1985). Governance structures can be matched to transactions in a manner that leads to lowered costs of exchange (Williamson, 1979). Each structure is associated with a different level of transaction costs (Goldberg, 1985; Hennart, 1993)—costs not dependent on the competitive market price of the goods or services exchanged (Robins, 1987). These costs arise from the setup and running costs of the governance structures, as well as other costs, such as those due to renegotiation, that arise from a shift in the alignment. Under competitive conditions firms seek governance structures to economize on transaction costs. The cost of market exchange is high when the specificity of assets under exchange is high. Under these circumstances, other forms of governance, such as 'hierarchy', may prove efficient.

Transactions with potential suppliers of finance are associated with contracts that delineate the benefits and recourse available to them (Williamson, 1988). The benefits represent the property rights present in their rights over return streams generated from the assets. The recourse available is in the form of various control rights over managerial actions. The debt instrument possesses fixed benefits with the principal and interest repayment schedules stipulated in the contract. It is only when a firm defaults on this schedule and does not meet its contractual obligations can debtholders step in, exercise their preemptive claim, and push the firm into bankruptcy if necessary. Thus, debtholders have little control over managerial actions in ensuring that resources are utilized efficiently. They are unable to interfere with firm operations so long as the contractual stipulations are satisfied.

The benefits for equity owners are not certain as they have a residual claimant status over the cash flow from asset earnings and liquidation.

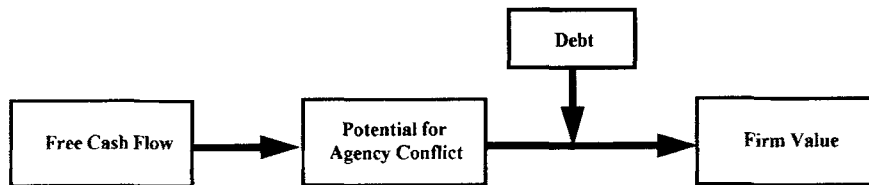


Figure 1. Agency perspective on capital structure

The equity contract is not for a fixed period and runs for the life of the firm. The board of directors is present to ensure that the investment of equityholders is protected. The board has the authority to monitor internal performance, approve significant decisions, decide on managerial compensation, and replace managers if it deems so necessary (Fama and Jensen, 1983). Therefore, as it can monitor and evaluate managerial actions continuously, the instrument of equity possesses stronger governance abilities when compared to the debt instrument.

It appears that the two broad ways of organizing the financial structure of a firm, debt and equity, represent alternative governance structures.¹ Debt is akin to the 'price system' of organizing usually associated with the 'market' (Williamson, 1988), where agents are rewarded on the basis of output (Hennart, 1993). Equity emphasizes behavior control present in the 'hierarchy system' of organizing activities (Hennart, 1993). For a particular investment, the choice of financing structure is likely to depend on the trade-off between the benefits and governance ability. The specificity of assets in the transaction is likely to be a determining factor in the choice between the two (Williamson, 1975).

Consider first the scenario when the project to be financed consists primarily of firm-specific assets. These assets may be beneficial to the firm because of locational, technological, human, or specialized investment advantages (Reeve, 1990). If firm managers default on some or all of their contractual obligations, debtholders may push the

firm into bankruptcy. As is their right, they would aim to recover their investment by liquidating assets and selling them to another firm which can utilize them for the original or a different purpose. However, firm specificity would indicate that the assets are not likely to be as valuable when put to another use or in the hands of another user (Klein, Crawford, and Alchian, 1978; Williamson, 1979); maximum productive value was present in the original use of the now bankrupt firm (Williamson, 1991). Thus, the value obtained from asset liquidation would be extremely low, and lenders will recover only a small fraction of their initial investment. The loss in investment will be greater the higher is the level of firm specificity. Therefore, debtholders will be unwilling to invest in projects with high firm-specific assets, and prefer low-specificity investments (Williamson, 1988).

For assets that are not redeployable outside the firm, financing that has stronger governance abilities, namely equity, will be utilized. When control is to be exerted, equityholders, as residual claimants, have the right to revise the employment terms of managers (Alchian and Demsetz, 1972). For instance, managers who shirk in the utilization of assets may be replaced by the board. Thus, equity is the form of financing more suitable for high-specificity projects (Williamson, 1988). As Klein *et al.* (1978) suggest, the owners of specialized assets should be the residual claimants of the rents obtained from the assets. The transaction cost perspective on capital structure is presented in Figure 2.

R&D intensity has often been used as a measure of intangible and firm-specific know-how (Helfat, 1994). That is, it is an indicator of firm specificity of the assets. Research evidence has shown that R&D intensity of a firm is negatively related to its leverage (Balakrishnan and Fox, 1993; Baysinger and Hoskisson, 1989). Also,

¹ The discussion regarding the governance properties of debtholders and equityholders is based on the U.S. economic system. Systems that have different institutional frameworks, such as Germany and Japan, would ascribe different rights to suppliers of capital (Aoki, 1989; Berglöf, 1990; Gerlach, 1987; Hill, 1995).

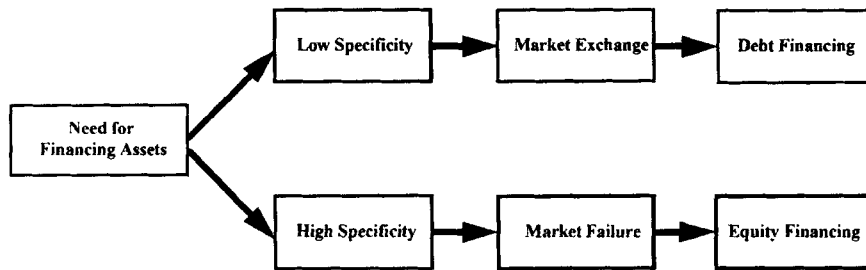


Figure 2. Transaction cost perspective on capital structure

firm-specific effects were much more important than industry effects in explaining capital structure across firms (Balakrishnan and Fox, 1993). Finally, Titman and Wessels (1988) found that a firm's leverage was negatively related to product uniqueness, a measure of firm specificity. These findings lend support to the link between specificity and capital structure.

Differences in the agency and transaction cost perspectives

At the elementary level, there is a difference in the level of analysis between the agency theory and transaction cost viewpoints of capital structure. Whereas transaction cost economics is based on the importance of the specific transaction between the parties entering into the contract, agency theory highlights the role of individual agents (Eisenhardt, 1989). The former focuses on the characteristics of the transaction and the latter deals more with the characteristics of the agents. However, deeper theoretical differences are evident when attention is paid to the mechanisms of conflict reduction.

Market characteristics

For complex exchanges, transaction cost theory assumes that optimal contracts cannot be written due to bounded rationality. Hence, it rests on the notion of market failure (Rumelt *et al.*, 1991). The transaction costs of governance through debt will be extremely high when firm specificity of assets is high; the resulting market failure leads to exchange through equity. Agency theory, on the other hand, adopts the assumption of market efficiency (Barney and Ouchi, 1986) and seeks to find the optimal contract for the exchange. As debt is an alignment device that reduces the

agency conflict, its presence is reflected in improved stock price.

Determination of relevant costs

In agency theory, the focus is on the relevant contracting action before the incentive scheme is introduced (Williamson, 1990). The resultant agency costs arise from an interaction of the risk-taking propensity of agents, uncertainty about their efforts, and the incentive intensity (Eisenhardt, 1989). Therefore, they are determinable primarily *before* the incentive systems are established into the contract. The usage of incentive schemes with varying intensity is likely to lead to different agency costs. For instance, such costs would differ for a firm depending on the amount of leverage in its capital structure.

In transaction cost theory, *ex ante* costs arise from the setup and running costs of alternative governance systems (Hill, 1994; Williamson, 1990). However, the impossibility of drafting complete contracts (under bounded rationality) implies that the likelihood of uninsurable opportunism still exists. The *ex post* contracting action then becomes more relevant to the interested parties. Costs can arise from renegotiation necessary at a later date in case of a shift between the governance structure and transaction (Hennart, 1993). Hence, although transaction costs have *ex ante* and *ex post* components, the emphasis is primarily *after* the transaction is entered into with a specific governance structure (Barney and Ouchi, 1986). As governance structures, debt and equity are associated with different levels of *ex ante* costs (benefits) and *ex post* costs (control rights). Even if the benefits can be satisfactorily negotiated, the optimal selection strategy requires the matching of control rights to the specificity of the assets.

Role of lenders

In agency theory debt is a mechanism to decrease conflict; the willingness of potential debtholders to supply finance is, however, not considered. Even though a higher level of debt may be suitable to decrease agency costs, debtholders may not be willing to lend funds in certain cases, especially when they believe that their investment is not safeguarded. In these cases they would lend at such high interest rates that the costs of utilizing debt would increase substantially. Debt would become an unprofitable device wiping away any (probable) gains from a reduction in agency costs. The role that lenders play in affecting capital structure, however, is incorporated in the transaction cost viewpoint.

Assumptions about governance properties

In agency theory, the incentive alignment ability of debt arises from the power available to debtholders in case of default. Managers are forced to be efficient to meet payment schedules to avoid scrutiny and interference by debtholders. The transaction cost logic also assigns the same governance properties to debt, with debtholders possessing identical rights. However, equity is considered a more powerful governance device than debt, mainly because debt is less interfering than equity. As long as the firm is meeting its contractual obligations, debtholders are not able to influence managerial actions. On the other hand, equityholders are able to continuously monitor and evaluate managerial decisions through the board of directors. Thus, both equityholders and debtholders are able to influence managerial actions, albeit to differing degrees. While the transaction cost logic of capital structure recognizes the difference, the agency perspective is silent on this regard.

Assets under governance

A final difference, and perhaps the most critical, between the two perspectives is based on the question: *What is being governed?* According to agency theory, the free cash flow present in a firm gives rise to difficulties that are resolved through the choice of financing. On the other hand, in transaction cost economizing, suitable financing resolves difficulties arising from the

resources of the firm. The differences between the two perspectives can, thus, be considered to be based on the *governance of free cash flow* vs. the *governance of resources*.

The above suggests that agency theory explanations are applicable narrowly whereas transaction cost explanations have a much wider scope. As long as there are profitable investment opportunities, agency costs from free cash flow do not arise, and hence, the role of debt is not relevant. Transaction cost explanations, however, are relevant for all firms. The choice of the mix of debt and equity is a function of the nature of resources of the firm and is relevant even when the firm is investing in profitable projects. As resources valuable to a firm are idiosyncratic to it (Barney, 1991; Wernerfelt, 1984), they have higher specificity (Amit and Schoemaker, 1993; Peteraf, 1993; Mahoney and Pandian, 1992). Governance of these specific resources is essential to extract value from their potential benefits. Thus the nature of resources under a firm's control appears to be a driving feature determining its capital structure (Balakrishnan and Fox, 1993).

Summary

The preceding discussion notes that there are several theoretical differences between the two organizational economic perspectives of transaction cost economics and agency theory when applied to an examination of firm capital structure. A summary table of these differences is presented in Table 1. Information asymmetry between the contracting parties is an important element in both viewpoints. In agency theory, however, information can be purchased through expenditure on monitoring devices (Eisenhardt, 1989). Information asymmetry cannot be reduced in the transaction cost logic, and the result is failure of the market form of exchange (debt). The notion of market failure is more in agreement with the current line of thinking that demonstrates dissatisfaction with the neoclassical viewpoint of the firm (Arrow, 1985; Rumelt *et al.*, 1991).

Conceptually, it appears that the transaction cost logic may be preferable over the agency perspective as a theoretical explanation of capital structure. Transaction cost economizing recognizes that suppliers of funds also play a role in affecting capital structure. Moreover, the rights of both types of suppliers are considered. The

Table 1. Conceptual differences between the agency theory and transaction cost perspectives on capital structure

Source of difference	Agency theory perspective	Transaction cost perspective
1. Market characteristics	Capital markets are efficient	Capital markets can fail
2. Determination of relevant costs	Before contract is established	After contract is established
3. Role of lenders of funds	Excluded	Included
4. Assumptions about governance properties	Debt has governance abilities	Debt and equity both possess governance abilities, with equity being more powerful
5. Assets under governance	Free cash flow	Firm resources

type of financing selected for an asset depends on its characteristics. The transaction cost perspective emphasizes that capital structure results from the choices based on the governance of resources, and that firm specificity is a determining factor. Thus, the transaction cost logic is more appealing than the agency framework because of the inclusion of several factors; i.e., it may provide a more 'complete' picture.

If one paradigm is to be chosen over the other, however, the differences should be visible in empirical tests of specific organizational actions. Jensen (1986, 1989a) applied the agency theory perspective of capital structure in the context of leveraged buyouts (LBOs) and diversification into new businesses. He suggests that the two phenomena provide supporting evidence for the control role of debt (Jensen, 1989b). Organizational scholars have also devoted much attention to these phenomena (Fox and Marcus, 1992; Ramanujam and Varadarajan, 1989; Seth and Easterwood, 1993). Therefore, this paper utilizes the two as a basis for contrasting the agency and transaction cost viewpoints. This process leads to the development of testable predictions that enable a comparison of the two theories. As will be seen below, agency theory and transaction cost economics often lead to opposing predictions. It is suggested that the existing empirical evidence mainly supports the transaction cost explanation of capital structure.

LEVERAGED BUYOUTS

The transaction in which a corporation (or the division of a corporation) is purchased by a small group of investors and is subsequently delisted from the stock exchange is referred to as an

LBO. The firm is converted to private ownership with management usually holding a substantial portion of the equity. Subsequent to the conversion, the large-block investors play an active monitoring role and often have representatives on the board of directors. Additionally, the transaction is financed with large debt issues. Thus, high leverage, increased management shareholding, active corporate governance from blockholders, and loss of access to the public equity markets are the key distinguishing features between an LBO and a public corporation (Palepu, 1990). LBOs have come to represent a large part of the restructuring and takeover activity of the U.S. economic system in value and frequency of occurrence (Lehn and Poulsen, 1988, 1989).

Jensen (1986, 1989a) has argued that LBOs provide support for the agency perspective of debt. High leverage increases the repayment burden and reduces the free cash flow, limiting the amount available for wasteful expenditures (Fox and Marcus, 1992). Firms with stable business histories operating in industries with low growth prospects (and consequently, high free cash flow), such as those in oil, tobacco, forest products, food, and broadcasting, are prime targets for LBOs (Easterwood, Seth, and Singer, 1989; Seth and Easterwood, 1993).

LBOs have been found to improve performance in operating income (Kaplan, 1989), operating cash flows (Smith, 1991), plant productivity (Lichtenberg and Siegel, 1991), and inventory management and accounts receivables (Singh, 1990). Given these findings, and the observation that there is no difference in sales growth between firms undergoing LBOs and their industry rivals (Singh, 1990), the primary value creation of LBOs appears to stem from changes in operational efficiencies, as predicted by agency theory.

In other words, the benefits seem to arise from the cost side, rather than from changes in revenues.

The application of agency principles, however, suggests that undergoing an LBO is not likely to be beneficial for a firm when its managers are not opportunistic and are investing cash flow wisely. Governance of free cash flow is not a problem for these firms. From an efficiency perspective, therefore, LBOs are more likely to occur in firms where a free cash flow problem exists and managers are not pursuing value enhancement strategies. Evidence has shown that entry into a product market that does not share commonalities with existing businesses does not generally benefit the firm in the long run (Ravenscraft and Scherer, 1987; Shleifer and Vishny, 1991). Performance is likely to improve when the businesses share some commonalities and are related to each other (Porter, 1987). Thus, diversification into unrelated businesses is potentially a value-reducing strategy, and a symptom of a free cash flow problem. Based on agency theory, Jensen (1986, 1989a) proposed the following pre-buyout relationship between firm strategy and the likelihood of LBOs;

P^{AT} 1: LBOs are more likely to occur in firms pursuing a pre-buyout strategy of unrelated diversification.

Researchers have also examined the post-buyout strategies of firms that have undergone LBOs. As the restructuring after an LBO intensifies the incentives available to managers, they should cease to indulge in wasteful actions. That is, high leverage in LBO firms ensures that managers invest in related businesses, and move away from value-reducing investments such as unrelated diversification. Based on these arguments derived from agency theory, several researchers have put forth the following prediction regarding the relationship between LBOs and diversification strategy (Fox and Marcus, 1992; Green, 1992; Liebeskind, Wiersema, and Hansen, 1992):

P^{AT} 2: Post-buyout, firms are likely to refocus their businesses leading to a related diversification strategy.

In a sample of LBO firms, Seth and Easterwood (1993) found that all types of strategies existed prior to buyout: single business, related diversifi-

cation, and unrelated diversification. Contrary to the agency theory prediction of P^{AT} 1, over 40 percent of firms had an initial strategy of single business or related diversification. Liebeskind *et al.* (1992) compared a sample of LBOs to a control group of public firms matched by industry, size, and level of diversification. They examined differences in corporate refocusing, measured by the change in number of businesses and the entropy index, across the two groups. Contrary to the agency viewpoint, they failed to find any significant differences in changes in total and related diversification. Seth and Easterwood (1993) also found that the restructuring activity of LBOs was not exclusively targeted towards businesses unrelated to their core businesses; a pattern of both related and unrelated divestment was observed. Finally, in his qualitative study of the managers of eight U.K. LBOs, Green (1992) did not find any inclination towards either an unrelated or a related diversification strategy. Therefore, it appears that the existing evidence is also inconsistent with P^{AT} 2.

While no direct tests exist, the evidence in the literature is consistent with the transaction cost perspective. The predictions made by Jensen (1986, 1989a) regarding LBOs relied on the delineation of industries that had large cash flows. A careful analysis, however, indicates that these industries were in the mature life cycle phase, and that their resources were no longer unique (Hall, 1980), being characterized by decreased specificity. As discussed previously, the transaction cost explanation suggests that high debt is useful as a governance device for firms when their resources have low firm specificity. Thus, the shift from equity to large amounts of debt, as done in LBOs, may be a shift towards a better fit between type of assets and the governance of such assets. It is not merely a form of cash flow governance, as specified in agency theory. For these firms, continuous monitoring by the board of directors is not critical, and monitoring is carried out by the debtholders. Moreover, as per the transaction cost logic, there is no *a priori* reason to expect systematic differences in the pre-buyout diversification strategies of firms undergoing LBOs, or in the post-LBO strategic shifts; consistent with the evidence. Based on the transaction cost relationship between the nature of resources and governance through debt, the following proposition can be developed:

P^{TC} 1: LBOs are more likely to occur in firms that have low firm specificity.

As mentioned earlier, R&D intensity has often been used as an indicator of firm specificity of resources (Helfat, 1994). Thus, as per P^{TC} 1, there is likely to be a negative association between LBOs and R&D spending. Although several studies have examined the relationship between LBO occurrence and R&D expenditure, they have primarily viewed the latter as a measure of firm innovation, rather than firm specificity. Despite conflicting results regarding post-buyout R&D (see Bruton and Scifes, 1992; and Zahra and Fescina, 1991, for reviews), research evidence does support the notion that it is firms with lower levels of firm specificity that undergo an LBO. LBOs do not occur in R&D-intensive industries or firms, and are more likely in firms where R&D is not an important factor for success (Hall, 1990; Jensen, 1989b; Kaplan, 1989; Smith, 1991). In fact, most firms that undergo an LBO do not deem R&D important enough to report it in their financial statements (Kaplan, 1989; Smith, 1991). Long and Ravenscraft (1993) also found that LBOs are usually targeted towards firms in low-tech industries—those with below normal R&D intensity. Firms that have high R&D expenditures are less likely to go through an LBO (Opler and Titman, 1993). These results suggest that it is in firms composed primarily of nonunique assets that debt is the efficient form of governance, via an LBO. Thus, the evidence on the relationship between firm specificity and LBO occurrence supports P^{TC} 1. A summary table depicting the comparison between the two perspectives is presented in Table 2.

The preceding discussion supports that notion that LBOs can be better explained from a transaction cost perspective rather than from agency theory. Predictions from the former perspective are supported, while those from the latter are not. It is the presence of non-specific assets requiring governance through high leverage that leads to firms going private. The performance improvement that is observed is because of the changes in its cost structure and not a correction of over-diversification (Seth and Easterwood, 1993).

Viewing LBOs from a different—the transaction cost—lens has implications for the going-private strategy. Critics of LBOs have argued that the high interest burden imposes inflexibility on

the firm managers, impeding their competitive ability in the product market (Rappaport, 1990). Moreover, these firms may have to forego some profitable investment opportunities as they do not have access to equity markets. These criticisms may be misfounded when it is considered that LBOs occur in firms with nonunique assets. These firms may not face any significant investment opportunities, and are less likely to require flexibility. Any loss in innovative capability does not effect either short-term or long-term performance (Bruton and Scifes, 1992; Long and Ravenscraft, 1993). On the other hand, these firms can actually gain a competitive advantage over their rivals by reducing governance costs. Contrary to criticisms, the high interest burden does not really pose difficulties, as most firms after an LBO are able to meet repayment schedules without any great difficulties (Seth and Easterwood, 1993). Moreover, in case of financial distress, or if the need for additional funds arises, firms can negotiate with their investors who have substantial ownership stakes and often a representative on the board of directors.

PRODUCT DIVERSIFICATION

Firms diversify in response to the presence of unutilized resources (Penrose, 1959; Teece, 1980). The distinction between related and unrelated diversification is closely tied to the characteristics of these resources. It has been argued that specialized assets are more likely to lead to related diversification (Teece, 1982). Firms with high levels of intangible assets, which tend to be specialized and inflexible, transfer them across similar businesses (Lemelin, 1982), leading to more related diversification (Chatterjee and Wernerfelt, 1991). A less-focused strategy, i.e., unrelated diversification, indicates that the resources are not highly specific to the firm (Montgomery and Wernerfelt, 1988; Wernerfelt and Montgomery, 1988). Thus, with respect to the resource requirements, a distinguishing feature between the two types of diversification strategies is the level of asset specificity (Mahoney and Pandian, 1992). The value gained from entry into a related business depends primarily on the synergies with existing businesses. Entry into an unrelated business, however, depends mainly on corporate-level strengths, such as the ability to obtain financial synergies (Hitt and Ireland, 1986). Therefore,

Table 2. Summary of predictions developed and compared in two organizational phenomena

Agency theory perspective		Transaction cost perspective	
Prediction	References ^a	Prediction	References ^a
<i>Leveraged buyouts</i>		<i>Leveraged buyouts</i>	
PAT1: LBOs are more likely to occur in firms pursuing a pre-buyout strategy of unrelated diversification	Jensen (1986, 1989a)	PTC1: LBOs are more likely to occur in firms that have low firm specificity	Hall (1990), Kaplan (1989), Long and Ravenscraft (1993) ^b
PAT2: Post-buyout, firms are likely to refocus their businesses leading to a related diversification strategy	Fox and Marcus (1992), Green (1992), Liebeskind <i>et al.</i> (1992)		
<i>Product diversification</i>		<i>Product diversification</i>	
PAT3: The debt-equity ratio of a firm is positively related to the degree of relatedness among its businesses		PTC2: The debt-equity ratio of a firm is negatively related to the degree of relatedness among its businesses	
PAT4: The debt-equity ratio of a firm is negatively related to the amount of refocusing	Gibbs (1993)		
PAT5: An increase in the debt-equity ratio of a firm is associated with an increase in the degree of related diversification		PTC3: An increase in the debt-equity ratio of a firm is associated with a decrease in its degree of related diversification	

^a Prior research that has examined the relationship is listed here. Absence of any references indicates that the prediction is original.

^b These papers use R&D as an indicator of innovation, rather than firm specificity.

related diversification is associated with the presence of more firm-specific assets, when compared to unrelated diversification.

These differences in the degree of firm specificity between the two diversification strategies suggest that the suitable modes of financing the two may differ. As discussed earlier, the transaction cost perspective argues that the efficient form of governance for specific assets is via equity financing; debt financing is likely to be preferred when specificity is low (Williamson, 1988). Related diversifiers, in general, tend to be composed primarily of firm-specific assets, whereas firms adopting unrelated diversification have lower specificity assets. Thus, specificity is positively related to the degree of relatedness. The relationship between specificity and financing suggests that firms following related diversification strategies are likely to be mainly equity financed and unrelated diversifiers to be debt

financed. From a transaction cost perspective, therefore, the following prediction can be made:

PTC 2: The debt-equity ratio of a firm is negatively related to the degree of relatedness among its businesses.

Application of the agency theory viewpoint, however, suggests opposing predictions regarding the relationship between leverage and diversification strategy. Due to higher total interest charges, firms with higher leverage will distribute a greater fraction of their earnings as payments to their debtholders. These firms will be associated with lower free cash flow resulting in lowered agency costs. The increased payment to debtholders will decrease the amount available to managers for potentially wasteful investments. Agency costs will also decrease due to the monitoring by debtholders. The increased scrutiny by debtholders

implies that managers would need to provide stronger justification for their actions. Consequently, they will be less likely to follow value-decreasing strategies such as unrelated diversification (Jensen, 1986, 1989a). Thus, according to the agency viewpoint, the following prediction can be made:

P^{AT} 3: The debt-equity ratio of a firm is positively related to the degree of relatedness among its businesses.

The two predictions, P^{TC} 2 and P^{AT} 3, suggest opposing directions regarding the relationship between the diversification strategy of a firm and its capital structure, hence, are contradictory. There is little previous research that has systematically examined the relationship between diversification strategy and capital structure. Barton (1988) and Barton and Gordon (1988) compared leverage ratios across diversification strategy groups and found that the debt-equity ratio of unrelated diversifiers was significantly greater than that of related diversifiers; consistent with P^{TC} 2. In other words, lower firm specificity is associated with higher levels of debt. Thus, it appears that existing research, though scant, provides evidence in support of the transaction cost prediction, and favors rejection of the agency theory prediction.

Recent years have witnessed an increase in the level of restructuring activity among firms (Bowman and Singh, 1990). While many firms are downsizing, several of them have changed the number and mix of businesses in their portfolio (Williams, Paez and Sanders, 1988), thereby changing the diversification strategy adopted. This portfolio restructuring has often been accompanied by a financial restructuring (Bowman and Singh, 1993). Predictions P^{TC} 2 and P^{AT} 3 presented cross-sectional relationships between leverage and firm strategy. Longitudinal studies, that relate the change in a firm's capital structure to the change in its diversification strategy, would provide more robust support to the theories. As per agency theory, restructuring is a corrective response (i.e., value increasing) to the overexpansion that occurred in the previous decades. Firms with better initial monitoring would have a lesser need for restructuring as they would not have overdiversified in the first place (Bethel and Liebeskind, 1993). According to this perspective of

capital structure, therefore, firms with high leverage exhibit superior monitoring and fewer free cash flow problems, and hence, have less need to restructure their portfolio of businesses. Gibbs (1993) has argued that if debt acts primarily as an incentive alignment device, then high initial debt levels would imply less subsequent corporate restructuring such as the refocusing of businesses. Thus, the agency theory prediction is as follows:

P^{AT} 4: The debt-equity ratio of a firm is negatively related to the amount of refocusing.

Gibbs (1993) examined several measures of free cash flow, corporate governance, and takeover threat as predictors of corporate restructuring. Contrary to the free cash flow hypothesis, he found that the initial financial leverage of a firm was positively associated with the amount of subsequent refocusing. In his study of restructuring firms, Markides (1992) found that the initial debt-equity ratio of a firm was not an important variable in predicting refocusing. The evidence from both studies suggests that high leverage is not necessarily reflective of lower agency costs in a firm, and therefore does not support P^{AT} 4.

Agency theory also suggests that the increased presence of incentive systems in a firm pursuing a strategy that is value reducing would lead to a strategy shift that is value enhancing (Bethel and Liebeskind, 1993). If leverage is indeed an incentive system, the increased monitoring by debtholders and the need to meet regular interest payments would pressure managers to limit actions that may be wasteful, and instead, focus on actions that are beneficial to the firm. In unrelated diversified firms, therefore, this would lead to strategic shifts toward greater related diversification that tends to increase firm value.² Hence, the following prediction can be developed:

P^{AT} 5: An increase in the debt-equity ratio of a firm is associated with an increase in the degree of related diversification.

The transaction cost rationale, however, suggests that a shift towards a focused strategy, i.e., a more related strategy, will be associated with a decrease in the debt-equity ratio. Due to the

² These arguments match the benefits of debt discussed in P^{AT} 2, albeit for a different organizational phenomenon.

greater degree of interrelationships among the businesses, an increasing level of related diversification leads to higher firm specificity of resources. Transaction cost economizing suggests that these resources require financing structures that have stronger governance abilities, namely equity. Conversely, a shift into more unrelated businesses implies a decrease in the degree of firm specificity of resources. For these firms, financing structures with weaker governance ability, i.e., financing via debt, would be more suitable. Thus, according to transaction cost economics, the following prediction can be developed:

P^{TC} 3: An increase in the debt–equity ratio of a firm is associated with a decrease in its degree of related diversification.

It can be noted that, akin to the cross-sectional relationships, opposing predictions are obtained even in the case of firm actions over time. While extant research has not tested the above relationships, some indirect evidence is available. In Gibbs (1993), the amount of refocusing was negatively correlated with the change in firm leverage, supporting P^{TC} 3 and rejecting P^{AT} 5. That is, firms that increased the degree of relatedness among the businesses in their portfolio also decreased their debt–equity ratio. This evidence provides support for the transaction cost explanation and favors rejection of the free cash flow hypothesis of agency theory.

The discussion above indicates that an application of agency theory and transaction costs principles to capital structure and diversification strategy leads to the development of opposing predictions. The evidence in the literature primarily supports the transaction cost perspective. Debt vs. equity financing becomes important for governance of firm resources, and not for governance of free cash flow. However, more research is required to test the competing viewpoints before these relationships can be conclusively established.

CONCLUSIONS

Financing and capital structure choices are among the several key decisions made by firm managers. Yet the study of these questions has been gener-

ally neglected by strategy researchers. Several scholars have noted that the issues involved are concerned with fundamental choices 'which should support and be consistent with the long-term strategy of the firm' (Barton and Gordon, 1987: 67), and that strategic management research should be inclusive of financial decisions (Bromiley, 1990). The arguments presented in this paper suggest that there are likely to be strong theoretical linkages between the financial and strategic management of a firm.

From an organizational economic perspective, two explanations for capital structure emerge. The explanations based on agency theory and transaction cost economics are dissimilar and lead to different predictions about firm behavior. On a conceptual basis, the transaction cost perspective is more appealing than the agency theory viewpoint. By including the role of suppliers of funds the former is able to consider all parties that are involved in the economic exchanges that lead to the capital structure decision in a firm. Moreover, it realizes that both classes of suppliers—debtholders and equityholders—have governance abilities. The level of governance ability varies between the two and the optimal selection of the type of financing depends on the nature of resources of the firm. The transaction cost framework considers that the nature of firm resources may lead to market failure. The extant empirical evidence also seems to favor the transaction cost perspective, at least in the case of LBOs and diversification.

The choice of a governance mechanism not based on transaction characteristics may lead to poor performance (Hennart, 1994). By selecting suitable financing, a 'firm's ability to manage its relationship with lenders thus becomes a key source of competitive advantage' (Balakrishnan and Fox, 1993: 3). Hence, financing choices have the potential to affect performance by changing the level of governance costs. While this issue has not yet been adequately researched, some supporting evidence is available. Seth (1990) found that the value created from unrelated acquisitions is positively related to increased debt utilization, suggesting that low-specificity assets should be financed through debt. Also, shareholders react more favorably to equity issues (which decrease leverage) in firms that adopt a related acquisition strategy, when compared to similar issues by other firms (Mann and Sicher-

man, 1991). In other words, high specificity funded through equity exhibits high performance.

Future research is required to address the above issues in more detail. Systematic studies that test the competing hypotheses presented herein will verify the arguments about the two perspectives that are developed in this paper. Additionally, much theoretical and empirical research is required before the conclusions can be generalized to other organizational actions. The relationships between firm resources, the governance of these resources, and financial lenders need to be better delineated to examine implications for strategic management. Moreover, there is much potential for research to examine the effect of financial strategies on firm performance.

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