



SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER TR-ONR-1	2. GOVT ACCESSION NO. (6) AD-2118138	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) THE RELATIONSHIP BETWEEN A FIRM AND ITS PRIMARY INVESTORS: AN APPLICATION OF THE AGENCY COSTS AND EFFICIENCY MODELS	5. TYPE OF REPORT & PERIOD COVERED Interim Technical Report	
	6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s) JAY B. BARNEY	8. CONTRACT OR GRANT NUMBER(s) N00014-81K-0035	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Graduate School of Management UCLA 405 Hilgard Ave., Los Angeles, California 90024	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR 170-920	
11. CONTROLLING OFFICE NAME AND ADDRESS Office of Naval Research Organizational Effectiveness Group (Code 442) Arlington, VA 22217	12. REPORT DATE July 1982	
	13. NUMBER OF PAGES 43	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Office of Naval Research Resident Representative University of New Mexico, Rm 204 Bandolier Hall Albuquerque, N.M. 87131	15. SECURITY CLASS. (of this report) Unclassified	
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report)  Approved for public release: unlimited distribution		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES  DTIC AUG 1 2 1982		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)  corporate finance primary investors capital markets		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Insights from the theory of corporate finance and organization theory are combined in the analysis of the relationship between a firm and those of its external investors that hold large percentages of its debt and/or equity. These types of investors are called primary investors, and it is argued that firms enhance their access to capital by developing what Ouchi & Barney call clann assisted market relations with a small number of such investors. Implications of the theoretical discussion are tentatively tested using a sample of Japanese electronics firms.		

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S/N 0102-LF-014-6601

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THE RELATIONSHIP BETWEEN A FIRM  
AND ITS PRIMARY INVESTORS: AN  
APPLICATION OF THE AGENCY COSTS  
AND EFFICIENCY MODELS

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May, 1982

(Revised) July 1982

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comments would be very much appreciated.

This paper is part of a larger study on the structure of the U.S. and Japanese Electronics Industries, William G. Ouchi, Director and Jay B. Barney, Associate Director. Major funding for this research has been provided by the Office of Naval Research. Additional support was provided by the IBM Corporation; The General Electric Foundation; The Westinghouse Electric Corporation; AMP, Inc.; and The Alcoa Foundation. Comments and discussions with William G. Ouchi, Richard P. Rumelt, William McKelvey, Dave Ulrich, and Thomas E. Copeland have been valuable in this work.

Abstract

Insights from the theory of corporate finance and organization theory are combined in the analysis of the relationship between a firm and those of its external investors that hold large percentages of its debt and/or equity. These types of investors are called primary investors, and it is argued that firms enhance their access to capital by developing what Ouchi and Barney (1982) call clan assisted market relations with a small number of such investors. Implications of the theoretical discussion are tentatively tested using a sample of Japanese electronics firms.

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THE RELATIONSHIP BETWEEN A FIRM AND ITS  
PRIMARY INVESTORS: AN APPLICATION OF  
THE AGENCY COSTS AND EFFICIENCY MODELS

INTRODUCTION

In this paper, we draw on developments in the theory of agency relations (Jensen and Meckling, 1976; Grossman and Stiglitz, 1976) and the organizational efficiency model (Williamson, 1975, 1979; Ouchi, 1980; Ouchi and Barney, 1982) to analyze the relationship between a firm and those of its external investors that hold large percentages of its outstanding debt and/or equity. We call such investors "primary investors" and suggest that, under certain specifiable conditions, firms will find it in their self interest to develop primary investor relationships, and to deepen and broaden these relationships so that they approximate the notion of a clan assisted market first suggested in Ouchi and Barney (1982). We argue that such a relationship directly and indirectly enhances a firm's ability to raise capital from all external sources, whether through short or long term debt, new bond issues, or stock offerings, etc. Because primary investors are often other organizations, the relationship between firms and such investors can be fruitfully cast as an issue in interorganizational relations.

In addition to bringing together elements of agency and efficiency theory, our discussion also draws from, and has implications for, other organizational theories, including Pfeffer and Salancik's (1976) resource dependence theory, theories of corporate finance (Copeland and Weston, 1979), and issues of current interest in public policy. We briefly discuss each of those below.

Organization Theory. Most theoretical models of interorganizational relations focus on the processes by which organizations acquire scarce resources

from their environment (Yuchtman and Seashore, 1967). A variety of particular resources organizations might need to acquire, including raw materials (Pfeffer and Salancik, 1976: 114), labor and management (March and Simon, 1958), and political influence (Pfeffer and Salancik, 1975:188-9; Zald, 1970; Seiznick 1949) have all been studied, both in the public and private sectors. Also, the process of acquiring funding has been studied for organizations in the public and not-for-profit sectors (Pfeffer and Leong, 1977; Selznick, 1949). The current research is consistent with the organizational theoretic focus on resource acquisition. However, the resource acquisition process we are studying, capital funding for firms in the private sector, has not yet received a great deal of attention in the organizational literature (Aldrich, 1979:301-302).

There are a variety of reasons why the capital funding process for firms in the private sector has not received a great deal of empirical or theoretical attention in the organizational theory literature. Perhaps the most important of these reasons is that any study of capital funding of private sector firms must necessarily focus on several financial factors in the economy, including banks (and other financial institutions) and various capital markets. The relationship between firms, financial institutions, and capital markets has generally been thought to be the subject matter of the theory of corporate finance, and as such, largely out of the realm of study of organization theory. And below, we do rely on the theory of corporate finance to inform our organizational discussion. However, we also argue that the nature of the interorganizational relations that exist between primary investors and a firm has implications for that firm's ability to raise capital. By combining theoretical work on organizations and corporate finance, we generate insights into organizational behavior not apparent when considering these research traditions separately.

The majority of theoretical and empirical studies of the organizational resource acquisition process currently extant in the literature are in a resource dependence tradition (Pfeffer and Salancik, 1978). Two key assumptions concerning the objectives of organizations in a resource dependence framework are that organizations (1) will seek to minimize their own resource dependence, and (2) they will seek to maximize the resource dependence of other organizations on themselves (Barney and Ulrich, 1982). One prediction based on these assumptions is that organizations will generally not rely on a small set of other organizations or individuals for important organizational resources, be it a small number of customers for sales, a small number of firms for raw materials, or a small number of outlets for marketing, etc. (Pfeffer and Salancik, 1978).

From a resource dependence perspective, one would therefore predict that firms will avoid relying on a small set of external investors, be they individuals or institutions, for capital. According to the model, such exchanges would only be undertaken at great risk to the dependent organization, who is subject to a wide variety of opportunistic behaviors and uncertainty on the part of the organizations on whom they depend. Moreover, the resource dependence model also suggests that if, for some reason, a large percentage of a firm's debt and/or equity did come to be held by a small set of external investors, an inherently unstable relationship would have been formed. In this situation, the dependent firm, according to the model, would usually attempt to decrease the percentage of its debt and/or equity held by these investors, perhaps through buying back their own stock (often at a premium), issuing new stock, issuing new debt, etc. (Pfeffer and Salancik, 1976). If such mechanisms were not successful, a highly dependent firm might attempt to extend its direct managerial control over some of its external investors that held large percentages of its debt and/or equity, perhaps through direct

acquisition or more subtle techniques of cooptation (Pfeffer, 1981; Pfeffer and Salancik, 1976; Selznick, 1949). By thus extending its managerial control over broader sections of its environment, the firm may successfully minimize its dependence on a small set of external investors for capital.

Using language developed in Williamson (1979) and Ouchi and Barney (1982), the resource dependence model suggests that, from the firm's point of view, a primary investor relationship is, in fact, inherently unstable, and that firms will engage in activities to establish more nearly perfect arm's length market relationships between themselves and such investors. The object of these activities is to have a firm's debt and equity widely held by a large number of small external investors. If such market mechanisms were not successful in diluting a firm's dependence on a small set of large external investors, the model suggests that dependent firms might establish more nearly hierarchical relationships between themselves and primary investors, by extending their control through acquisition or cooptation of these investors.

The hypothesis investigated in this paper stands in marked contrast to this resource dependence analysis. We investigate the conditions under which firms, in order to enhance their survival potential, will develop and implement interorganizational strategies that increase rather than minimize, their dependence on a small set of individuals or firms for capital. In particular, we argue that primary investor relationships between external investors and firms can be governed in a stable manner with forms of control intermediate to nearly perfect markets and hierarchies, and that this will often be in the firm's best interest. Though couched in terms of a discussion of the relationship between a firm and its sources of capital, we believe our argument, and the theoretical models that underlie it, have broad implications for organization theory (Barney and Ulrich, 1982; Ouchi and Barney, 1982; Ouchi, 1980; Williamson, 1975, 1979; Jensen and Meckling, 1976).

Efficient Capital Markets. The theory of corporate finance has attempted to address two interrelated issues: (1) the determination of the optimal combination of external sources of long-term capital for a firm and (2) the cost to the firm of the combination of capital sources that it chooses (Lewellen, 1976). Beginning with the work of Modigliani and Miller (1958, 1963), most financial scholars have concluded that, except for tax laws that allow interest rates to be deducted as a business expense, "a corporation's debt-equity ratio should have no effect on its stock price--and, by inference, no effect on its cost of capital" (Lewellen, 1976:29). That is, the structure of a firm's long-term external sources of capital is independent of the value of that firm (Copeland and Weston, 1979).

The conclusion that the cost and structure of capital are, except for taxes, independent depends critically on the assumption that capital markets are efficient, i.e., that asset prices in a capital market fully and instantaneously reflect all the relevant information concerning that asset (Copeland and Weston, 1979). The nature of "relevant information" in the definition of capital market efficiency varies somewhat from author to author, but generally includes at least all publicly available information, whether it be annual reports, investment advice, rumors, etc. (Fama, 1970; Copeland and Weston, 1979). Thus, for most authors, the prices of a firm's debt and equity in efficient capital markets completely and instantaneously reflect all publicly available information concerning the value of these offerings.

Though the underlying assumptions of capital market efficiency have received a great deal of criticism (Durand, 1959; see reviews and responses in Lewellen, 1976:28; Fama, 1970; Copeland and Weston, 1979), our discussion below is completely consistent with them. Indeed, our arguments depend on an efficient capital market appropriately valuing particular types of transaction costs and then discounting a firm's debt and/or equity offerings accordingly.

However, while we employ the efficient capital market assumptions, we do not conclude that the structure in which debt and equity are held and the cost of capital are independent. Following Jensen and Meckling (1976) and Grossman and Stiglitz (1976), we argue that the form in which capital is held has an impact on the cost of capital for a firm. In particular, we argue that in efficient capital markets, the existence of primary investors, together with the type of relationship that obtains between a firm and its primary investors, has an impact on the ability of a firm to raise capital from all external sources, i.e., on the cost of capital for that firm. In brief, we argue that the existence of primary investors, and the types of relationships that firms maintain with those investors, minimizes the uncertainty an outside investor might have otherwise concerning the interests and motivations of a firm's management. This minimization of uncertainty in efficient capital markets will enhance the firm's ability to raise capital directly from primary investors. Moreover, the relationship between primary investors and firms is "public information" and will be taken into consideration by other, non-primary investors when pricing a firm's debt or equity. Thus, indirectly, the firm's ability to raise capital from all non-primary sources of capital is also enhanced.

Public Policy. Firms in many U.S. industries are currently facing increasing competition from foreign concerns. One competitive advantage some foreign firms may have over their U.S. counterparts is the ability to fully capitalize their business. In recent testimony before the Senate Subcommittee on International Finance, Dr. Robert Noyce, President of Intel Electronics, a U.S. based semi-conductor manufacturer, described this situation as follows (Noyce, 1980):

The key concern of the (semi-conductor) industry is its severe disadvantage in competing with aggressively growing, government subsidized foreign companies which have assured sources of capital

and thus can price themselves without concern for current profits. U.S. companies raise most of their capital from retained earnings and equity investments while the average Japanese and European companies are able to borrow heavily, as is evidenced by their higher debt to equity ratios. This is what U.S. semi-conductor executives call the "leverage gap." In simplest terms, these data reflect the reasons why the U.S. semi-conductor industry may grow less rapidly than our foreign competitors in the decade ahead. In the last analysis, access to capital may be the decisive factor in determining the world market share leader by the end of this decade.

The hypothesis we discuss in this paper suggests that one way firms can enhance their ability to raise capital is through the development of close ties with primary investors. However, in the current business regulatory environment, such relationships are discouraged as a matter of public policy. Banks, for example, are prohibited from owning equity shares in non-banking institutions, and are limited in the amount of money they may lend a firm (Heller, 1976). Also, commercial firms are often discouraged from making substantial debt or equity investments in upstream or downstream enterprises for fear of antitrust actions.

If one accepts the hypothesis that we are proposing - that close ties between firms and primary investors enhance a firm's ability to raise capital - it does not necessarily follow that these various prohibitions should necessarily be rescinded. Efficient acquisition of capital alone is probably not a sufficient condition for legislative change. Other issues, such as the ease of collusion and improper industry dominance would also have to be considered. Our hypothesis does imply, however, that the relationship between firms, investors, and the capitalization of business is more complex than was previously supposed, and that both the advantages and disadvantages of these relationships need to be understood when forming public policy.

In a research orientation, our hypothesis presents particularly difficult testing issues, since the majority of business practices we predict as being efficient are probably illegal in the U.S. Fortunately, other countries, as

Dr. Noyce noted above, do not have the same legal restrictions as the U.S. In particular, Japan, though it has both investment restrictions on banks and antitrust statutes, has a strong tradition of interfirm cooperation carrying over from the pre-war Zaibatsu (Vogel, 1979). Thus, our empirical work below will focus on firms, primary investors, and the ability of firms to raise capital in Japan.

#### AGENCY COSTS AND THE AGENCY RELATION

Much of the discussion below is based on the theoretical work of Jensen and Meckling (1976) concerning the agency costs of various forms of business finance. Before we build on this analysis, however, it will be helpful to review the general nature of agency relationships and the costs associated with these relationships. Jensen and Meckling (1976:308) define an agency relationship as...

a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent.

The relationship between the external investors and managers of firms is an obvious example of an agency relationship, where external investors (e.g., stockholders, debtholders) provide capital to the managers of an organization, and capital investment decisions are made by managers, who may not have any debt or equity interests in the firm. The principal/agent relationship is, however, quite common. Indeed, Jensen and Meckling (1976) and Alchian and Demsetz (1972) argue that any cooperative efforts in which decision-making responsibility is delegated can be thought of as an agency relationship.

What is theoretically relevant about agency relationships is not simply the fact of their existence, but that under a wide variety of conditions, the

interests of principals and agents will significantly diverge. This is particularly well manifested in the well known problems associated with the separation of ownership and control of business organizations. Managers in firms may have a wide variety of interests when making managerial decisions (Winter, 1964), only one of which might be to maximize the wealth of the firm's debt and equity holders (Lewellen, 1976). Managers, for example, might wish to maximize their individual power (Pfeffer, 1981; Pfeffer and Salancik, 1978; Hinnings, Hickson, Pennings, and Schneck, 1974), maximize the survival potential of their individual departments (Blau, 1955), to exercise unlimited discretion in investment decisions, and to consume non-pecuniary organizational benefits (Jensen and Meckling, 1976). Each of these classes of managerial interests is likely to lead to managerial decisions and actions that diverge significantly from the interest of debt and equity holders to maximize their individual wealth.<sup>1</sup>

The principal in an agency relationship can attempt to limit the divergence between his interests and the interests of the agent. A variety of activities that arrange the incentives of the agent so that their interests converge with the principal's interests can be developed. However, these activities are not costless, and the costs of arranging the incentives or agents are called agency costs. Jensen and Meckling (1976) divide the total agency costs associated with an agency relationship into three parts: (1) residual costs, or the reduction in the wealth of the principal due to the divergence of his interests from the agent's interests, (2) monitoring costs

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<sup>1</sup> Of course, investors may have interests besides the maximization of their wealth when making investment decisions, e.g., to attain personal status associated with owning certain high prestige stocks, etc. Whatever the interests of investors, the existence of an agency relationship suggests that a divergence between principle and agent interest could obtain. For simplicity sake, we assume that most investors seek to maximize their personal wealth through their investments.

incurred by the principle in measuring, evaluating, and regulating the behavior of the agent, and (3) bonding costs made by the agent to convince principal(s) of the convergence of their's and the agent's interests. This three way classification of agency costs implies two ideas important in our discussion below. First, increases in bonding and/or monitoring agency costs should generally decrease residual agency costs. That is, engaging in bonding or monitoring behaviors will, in general, assure both the principal and agent that their interests are somewhat convergent, and thus the residual costs of the agency relationship for the principal should decrease. Second, in general, we would not expect residual agency costs to go to zero in any agency relationship. Given complexity, uncertainty, performance accounting ambiguity, etc. (Ouchi and Barney, 1982), bonding and monitoring activities can never generate sufficient information such that a complete convergence of agency and principle interests is guaranteed.

Agency Costs of Equity and Debt. Much of the literature on agency relationships and agency costs focuses on ways that principals can arrange incentives to minimize their residual agency costs; that is, to insure principals that a convergence between the agent's and principle's interests exists (Ross, 1973, 1974; Heckerman, 1975). Jensen and Meckling (1976), on the other hand, focus on the agency costs of two particular agency relations, the relationship between outside equity holders (in particular, stockholders) and a firm, and the relationship between debt holders (in particular, bond holders) and a firm. Their objective is to develop a theory of corporate ownership structure based on the agency costs of equity and debt. Once the sources of the agency costs of equity and debt relations are isolated, Jensen and Meckling (1976) argue that firms will choose that financial structure that minimizes the sum of debt and equity agency costs, for any level of outside financing.

Jensen and Meckling (1976) begin their analysis by focusing on the agency costs of outside equity financing. The divergence between the interests of outside equity holders and firm managers is directly traceable to the fact that a manager who holds less than one-hundred percent of a firm's equity "bears only a fraction of the costs of any non-pecuniary benefits (he) takes (out of the firm) in maximizing his own utility" (Jensen and Meckling, 1976: 312). For example, suppose a manager, in maximizing his personal utility, wishes to have an executive jet at his disposal. If such a manager holds less than 100% of the equity of the firm in which he works, when the firm acquires the aircraft, the manager does not directly bear the total cost. Indeed, other equity holders bear some of these costs directly.<sup>2</sup> As a manager's equity holdings in a firm decrease, the divergence between outside equity holders' interests and the manager's interests around extracting these non-pecuniary benefits from the firm increases.

The agency costs arising between debt holders and their agents (firm managers) have a somewhat more complex origin, traceable to the ability of management to transfer wealth from debt holders to itself by engaging in riskier investment projects than would normally be desired by debt holders (Galai and Masulis, 1976; Jensen and Meckling, 1976; Copeland and Weston, 1979; Fama and Muller, 1972). Jensen and Meckling (1976:334) use the analogy of a gambler:

(consider) the way one would play poker on money borrowed at a fixed interest rate, with one's own liability limited to some very small stake.

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<sup>2</sup> This example is originally discussed in Copeland and Weston (1979:18). However, we have developed it in ways for which these authors should not be held responsible.

The point being that a gambler in this situation (as an agent) would likely engage in riskier play with the principal's money than the principal might prefer.

Though arising from different sources, the agency costs associated with equity and debt have two important common characteristics. First, principals may engage in monitoring activities or agents may engage in bonding activities to minimize the residual agency costs in their equity and debt relations. Second, as long as capital markets anticipate total agency costs in an unbiased manner, that is, as long as capital markets are efficient, the amount of capital a firm will be able to raise through debt and/or equity will be discounted by the sum of monitoring costs incurred by investors, bonding costs incurred by firms, and residual agency costs. This first conclusion follows directly from the notion that investors may seek to protect their investment by engaging in activities that monitor the behavior of their agents, to assure a convergence of interests. They may also protect their investment by requiring their agents to engage in some bonding mechanisms also designed to assure investors of a convergence between their's (the investor's) and the agent's interests. The second conclusion is somewhat more subtle. Suppose an individual decides to invest in a recent stock offering. In doing so, the investor will recognize that certain agency costs are likely to obtain. That is, the rational investor will recognize that his and a firm's manager's interests are likely to not be identical, and that engaging in monitoring or bonding activities, such as insisting on frequent audits, restricting managerial discretion, etc., are going to be costly to develop, implement, and enforce. A rational investor will take the size and characteristics of those agency costs, including the costs of minimizing residual agency costs through monitoring or bonding activities, into consideration when valuing the stock

for himself. If there were no agency costs, a rational investor would recognize that, for example, monitoring activities were not necessary, and would pay a price, say  $P$ , for a share. However, because agency costs are non-zero (as Jensen and Meckling [1976] demonstrated) this investor will only be willing to pay the original price  $P$ , discounted by the agency costs,  $A$ . Thus, in a manager's attempt to raise capital, he will only be able to obtain  $P-A$  dollars per share rather than  $P$  dollars per share due to agency costs. Thus, the managers of the firm bear the entire wealth effects of the agency costs in their attempt to gain access to external capital sources. In this case, it is in management's best interest to minimize these agency costs, thus maximizing the amount of capital they can obtain.

The same conclusion holds for debt relations between a firm and an investor. With debt, instead of paying less for the price of stock, a rational investor, anticipating both residual agency costs and the costs of ensuring that the firm's management acts in ways consistent with his (the investor's) interests, will only accept a firm's indebtedness at a higher level of interest than the firm would have to pay if no agency costs existed. The size of this "agency costs fee" is proportional to the opportunity for the undiscovered divergence between the firm's management's interests and outside investors' interests.

If managers in a firm hold some equity position in the firm, then the divergence between external equity holder's interests and managerial interests is likely to decrease. Thus, in such a situation, the associated residual agency costs, bonding costs, and monetary costs would also generally decrease. However, as long as a manager's equity position is less than 100%, some agency costs will obtain.<sup>3</sup>

<sup>3</sup> One interesting implication of this analysis is that outside investors might require, or firm's may voluntarily develop, stock option plans for top management. Such a mechanism, as a monitoring or bonding mechanism, can be helpful in minimizing agency costs.

Efficient Monitoring and Bonding. Thus far, building on Jensen and Meckling's (1976) work, we have argued that, as long as a firm's management has less than a 100% debt and/or equity interest in a firm, a divergence of interests is likely to obtain between these managers and outside debt and equity holders. We have also argued that, in efficient capital markets, the extent of this divergence and the costs of closing it, with bonding and/or monitoring mechanisms, are accurately estimated, and that the value of a firm's debt and equity offerings are appropriately discounted by these costs by a firm's potential investors.

Thus, in an attempt to obtain external capital, a firm's management will bear all the wealth effects of monitoring and bonding activities, as well as any residual debt and equity agency costs. Given this argument, it is in the interest of a firm's management seeking to obtain capital from external sources to minimize the costs of monitoring and bonding activities as well as to minimize residual agency costs.

A broad range of bonding and monitoring activities, all of which provide at least some information concerning the convergence (or lack thereof) between agent and principal interests, are available. In some circumstances, residual agency costs can be minimized by the firm simply reporting its financial performance, be it annually or quarterly. In other situations, investors may not feel comfortable in accepting firm financial reports, and may additionally rely on government reports and/or independent audits to assure that their interests are being adequately represented by a firm's management. Here, the firm's basic performance information is augmented by verification information obtained by a third party (the auditor or government) that both the firm's management and external investors accept as independent and objective and to whom both parties grant limited legitimate authority. In still other situations, as when a firm's historical financial performance has been inadequate,

external investors may require additional information concerning firm performance to assure themselves that residual agency costs are minimized. In such situations, certain external investors may require firms to accept contractual constraints on their managerial discretion. Banks can, for example, require that firms limit their investments to certain projects, not pay dividends, etc. In such cases, external independent auditors not only verify firm performance data, but also assure managerial compliance to the terms and conditions of the contracts and agreements. Finally, under some circumstances, the ability of investors to monitor performance (or, similarly, the ability of firms to demonstrate their performance through various bonding mechanisms) through quarterly financial reports, auditors, and investment contracts may be so limited, perhaps due to the complexity and uncertainty of the business, that these, and similar mechanisms of control, will be inadequate to minimize residual agency costs. Under such circumstances, monitoring and bonding to reduce residual agency costs may only be possible through close, long-term, continuous relations between investors and firms. Specific examples of these types of close, intimate monitoring and bonding activities might include overlapping boards of directors, common management committees, common cost accounting, etc.

These, and many other bonding and monitoring mechanisms that firms and investors might engage in to assure each other of a convergence of their interests, can be arranged along the dimension pictured in Figure One. (Ouchi

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and Barney, 1982). On the one hand, if investors only require the firm to report its performance, without outside auditors or government assistance, a simple market relationship obtains between firm and investors. That is, no

TABLE ONE. Bonding and Monitoring Mechanisms and the Efficient Boundaries Framework (Ouchi and Barney, 1982)

Simple Market Relationship	<----->	Bureaucratically Assisted Markets, Quasi-hierarchies	<----->	Clan Assisted Markets
Firm Reports Financial Performance		Firm Reports Financial Performance plus outside audits  Firm Reports Financial Performance plus government reports		Contractual Relations with Investors constrain managerial discretion plus outside audits  Non-Contractual, intimate, long- term relationships

intermediate organizational governance exists between a firm and its investors. Relationships remain exclusively "arms length" in nature. However, as outside auditors or the government begins to play a role in monitoring/bonding, a quasi-hierarchical relationship between firm and investor obtains. In this case, the relationship between investor and firm remains fundamentally market in nature, but both firms and outside investors grant legitimate, but limited, authority to a third party to mediate their relationship. The third party is given the power to act as an intermediary between firm and investor, augmenting the limited amount of information concerning managerial and investor interests available in an "arms length" market relationship and in effect, requiring one or both parties to engage in specific, if limited, actions, including full financial disclosure. As outside auditor's monitoring responsibilities broaden, the quasi-hierarchical relationship between investor and firm begins to take on a number of bureaucratic characteristics and attributes. In this case, external investors almost play the role of a shadow management. Based on the terms and conditions agreed to, outside investors, acting through the third party auditor, can begin to exert influence on certain classes of day-to-day managerial decisions in a firm. Both the firm and investors still rely on this third party to assure compliance with the terms and conditions of their contractual relationship. Finally, for those monitoring and bonding mechanisms that involve long-term, intimate relations between firms and investors, clan assisted market relations obtain (Ouchi, 1980; Ouchi and Barney, 1982). In this context, a clan relationship can be understood as a non-contractual relationship between investors and a firm from which exit is costly to both parties (and thus unlikely), and in which the possibility that undiscovered divergence between investor and managerial interests exists is very low. While investors and firms may remain separate legal entities, simple market transactions are greatly augmented by information generated by

close, cooperative relations. Enforcement of this relationship is direct, without reliance on outside third parties. In this situation, formal organizational boundary distinctions become blurred (Ouchi and Barney, 1982).

Bonding and monitoring mechanisms vary in that they provide investors with different amounts of information concerning the behavior and interests of a firm's managers. In general, moving from nearly pure market relations between outside investors and a firm's managers, to quasi-hierarchical relations, to clan assisted market relations entails an increased amount of information available to investors concerning managerial interests. Thus, moving from market to clan assisted market relations generally reduces residual agency costs, in that investors are increasingly able to more accurately evaluate the firm's management. It is also the case that, in general, the start up costs, management costs, and opportunity costs of these mechanisms also increase as one approaches clan assisted market investor-manager relations. Because, in efficient capital markets, the firm's managers bear all the wealth effects of total agency costs, managers of firms have an incentive to develop with their investors those bonding or monitoring mechanisms that assure investors of the convergence of their and the manager's interests, but which do so at minimum expense. Thus, if investors can be assured that managers are representing their interests through simple quasi-hierarchical mechanisms such as independent audits, those monitoring mechanism would be preferable to more elaborate (i.e., expensive) monitoring mechanisms that provided more than the required amount of information.

Jensen and Meckling (1976) suggest that the appropriateness of bonding and monitoring mechanisms will depend on characteristics of the investment situation, such as the difficulty of measuring a manager's performance and evaluating it, the difficulty of devising specific rules to govern the agent's behavior, and the cost of replacing a manager. Ouchi and Barney's (1982)

general analysis of efficient governance mechanisms suggests that whenever the complexity or uncertainty surrounding a transaction increases, increasingly elaborate governance mechanisms are appropriate and necessary. Thus, we would expect investors in industries where managerial performance is not difficult to evaluate, is not complex, where future technology is not uncertain, etc. to rely on less elaborate, market or quasi-hierarchical monitoring and bonding mechanisms. As investors have an increasingly difficult time observing and evaluating managerial interests and behavior, due to the complexity of the managerial task or the uncertainty facing the organization, more elaborate bureaucratically assisted or clan assisted market mechanisms of bonding and monitoring would be chosen. These governance mechanisms would decrease residual agency costs and would do so at minimum cost. In all cases, the objective of the firm's management is assumed to be to maximize the amount of external capital available to it, at any given point in time, by minimizing the total agency costs of debt and equity (Jensen and Meckling, 1976). Minimizing total agency costs will necessarily involve striking a balance between the information concerning managerial interests that can be generated with increasingly elaborate, close relations between firms and investors (thus decreasing residual agency costs) and the expense of developing and maintaining these elaborate relations (i.e., increasing bonding and monetary costs).

Investment Relations Under High Uncertainty. Suppose high uncertainty, complexity and ambiguity obtains in the agency relationship between external debt and equity holders and the managers of the firm. We have argued here that in such a situation simple performance measures, even augmented by auditors and investor mandated restrictions on managerial discretion, may not assure external investors that managers are acting in their (the investor's) best interests. This situation could exist, for example, in industries where

the qualitative nature of future technology and the structure of future demand for a business are highly uncertain.

Consider the difficulty of evaluating a manager making R&D decisions in a highly uncertain technological environment. A manager deciding to invest money in a particular technology in such an industry may be trying to maximize the wealth of external debt and equity holders of his firm by getting a jump on competitors in a new and exciting technology. On the other hand, this manager may be making an ill-informed decision. He may even be investing in this particular technology for reasons unrelated to the wealth of the firm's outside investors, e.g., if he leaves the firm, he will have had experience with this new technology thus enhancing his future earning potential. Current financial performance data for the firm cannot be used to evaluate managerial performance or motives. The appropriateness of a manager's decision in this uncertain setting can only be known in the future, and the future is essentially nonpredictable. In this situation, high performance accounting ambiguity obtains (Ouchi and Barney, 1982) and market, quasi-hierarchical, or bureaucratically assisted market monitoring or bonding mechanisms could not, in general, insure investors that residual agency costs had actually been minimized.

Suppose, perhaps due to government regulations, that external investors in this situation did not have many alternatives available to them for evaluating managerial performance relative to their (the investor's) interests. In particular, suppose that clan mechanisms of evaluation (involving close, long-term relationships between debt and equity holders and managers in the firm) are not available. In such a situation, investors might still use quarterly audited financial reports or some other market, quasi-hierarchical, bureaucratically assisted market system to monitor the behavior of firm management. However, the residual agency costs in this situation would likely not

be at a minimum. That is, investors using these mechanisms could not, in general, assure themselves that management was acting in their interests. Thus, the total debt and equity agency costs would include not only monitoring and/or bonding costs, but also residual agency costs. And because (in efficient capital markets) all agency costs are borne by the firm, this firm would not be able to raise as much capital as firms with lower overall agency costs.

Suppose now that clan-based monitoring or bonding mechanisms were available in an agency relationship. By developing a clan assisted market relationship, investors could assure themselves that residual agency costs are minimized. In such interorganizational clans, the likelihood of the convergence of outside investor and management interests is enhanced due to the amount of information flowing between these two parties. In the previous example, the underlying motivations of the manager deciding about future technology investments would be understood by investors, and the coincidence of investor and manager interests could be evaluated. Thus, with residual costs minimized, the firm would have the price of its stock discounted by (alternatively, the return on its debt increased by) the cost of clan-based monitoring and the much reduced residual agency costs. If the cost of clan monitoring mechanisms plus a much reduced residual agency cost is less than the cost of market of quasi-hierarchical mechanisms plus much larger residual agency costs (taken from above), the firm with clan monitored agency relations will be able to obtain more capital than the firm with agency relations governed by other mechanisms.

Minimizing the Cost of Clan Assisted Relations. It is in the firm's management's interest to minimize the costs of monitoring because they bear all the wealth impacts of these costs through discounted equity prices or increased yield requirements on debt. Thus, if uncertainty, complexity, or ambiguity obtains and clan assisted market monitoring/bonding mechanisms are

available, a firm will adopt these mechanisms if their start up, management, opportunity, and other costs are less than alternatives. How can firms minimize the total costs of clan assisted market monitoring/bonding mechanisms necessary because of debt and equity agency relations? One obvious way is to simply minimize the number of such relations they must maintain. The development of each monitoring or bonding mechanism involves costs. The costs of audited financial reports can be spread over a large number of investors. The marginal costs of these monitoring or bonding mechanisms for each additional investor are quite small. However, this is not the case for clan based monitoring and bonding mechanisms. The maintenance of clan relations requires relation-specific investments, largely non-transferable to other relations. Interpersonal communication, coordination, goodwill and trust are not easily developed and not easily transferred. The marginal costs of each additional investor when clan monitoring or bonding mechanisms are employed are constant rather than declining.

The most straightforward way a firm can minimize the number of its clan assisted market monitoring/bonding relationships is to have a small set of investors hold large percentages of its debt or equity or both. By having such investors holding large percentages of debt and/or equity, a firm with ambiguous agency relationships and clan monitoring or bonding mechanisms can minimize residual agency costs, monitoring costs, and bonding costs. Such a firm will, according to our analysis, have more capital available to it. In other words, under conditions of uncertainty, a firm desiring to obtain maximum capital from its debt and equity offerings should develop an exclusive, long-term, intimate relationship with a small number of investors, each of whom hold large percentages of that firm's debt and/or equity. These types of investors are the "primary" investors that were discussed above. Thus, our

conclusion can be restated as follows: firms facing high uncertainty, complexity, or ambiguity wishing to maximize the amount of capital they obtain from external sources should seek to develop primary investors. Moreover, such firms should seek to develop clan assisted market relations with these primary investors. Such relationships, by minimizing residual agency costs and the costs of bonding/monitoring, directly enhance the ability of the firm to acquire capital from the primary investor.

#### INDIRECT BENEFITS OF CLAN ASSISTED MARKET RELATIONS WITH PRIMARY INVESTORS

Above, we reviewed the concept of an efficient capital market, where asset prices fully and instantaneously reflect all the relevant information concerning the value of a firm's debt and equity offerings. We then argued that the existence of an agency relationship between a firm and its external investors, together with the attendant residual agency costs, bonding costs, and monitoring costs, is relevant to the value of a firm's debt and equity and that, in an efficient capital market, those assets will be discounted in value in proportion to these total agency costs. Because the managers of the firm, in their attempt to raise capital from external sources, bear all the wealth effects of these agency costs, it is in their (the managers) best interest to minimize total agency costs in their attempt to raise capital. We then concluded that, under conditions of high performance accounting ambiguity, firms seeking to enhance their ability to raise capital from external sources will find it in their self interest to develop a clan assisted market relation with what we have called primary investors. Because, in such a relationship, total agency costs are minimized, the firm's ability to raise capital directly from the primary investor(s) is enhanced.

Suppose a firm is able to develop the type of relationship we have just described. The existence of clan assisted market relations between a firm and

its primary investors is very likely to become public information. Because it is public information, the relationship between firms and their primary investors will be considered by other, non-primary investors in evaluating the value of debt and/or equity offerings of the firm. Rational non-primary investors in an efficient capital market will recognize that a firm's primary investors, through the clan assisted market relation, have assured themselves (the primary investors) that the total agency costs between themselves and the firm have been minimized. That is, non-primary investors, when they observe a clan assisted market relationship between a firm and primary investors, can safely conclude that the primary investor's interests and the firm's management's interest, in fact, converge.

This information is valuable to non-primary investors to the extent that their (the non-primary investors) and the primary investor's interests coincide. Suppose, for a moment, that the interests of these two classes of investors do, in fact, converge. In an important sense, the existence of a clan assisted market relationship between primary investors and a firm not only minimizes the agency costs between the primary investor and the firm, but also the agency costs between non-primary investors and the firm. Thus, because the managers of the firm, in a efficient capital market, bear all the wealth effects of agency costs in their attempt to raise capital from external sources, the existence of a clan assisted market relation with a primary investor not only enhances the firm's ability to acquire capital directly from these primary investors, but also, indirectly, enhances their ability to acquire capital from non-primary investors. In short, to the extent that primary and non-primary investors' interests converge, a clan assisted market relation between a firm and its primary investors implies that non-primary investors will not discount the value of a firm's debt and/or equity offering due to agency costs that might obtain if no primary investor/firm relationship existed.

This argument is very similar to that recently developed by Grossman and Stiglitz (1976). These authors argue that it is in a firm's best interests if some, usually institutional, investor holds both its debt and equity, usually in the form of bonds and stocks. An investor's willingness to do so is a signal to the remainder of the investors in the capital market of the soundness of the firm. Each individual small investor may have neither the incentive nor the resources to fully evaluate a firm's performance in sufficient detail. Small investors would generally find it in their self interest to simply discount the value of the debt or equity of a firm, rather than engage in costly investigations of a firm's performance. However, a large investor, holding both a firm's stocks and bonds, especially in large amounts, would generally find it in its self interest to investigate a firm's performance in some detail. Such an investor's willingness to hold debt and equity in a single firm is a strongly positive signal to all other investors, who are now likely to be willing to assign a higher value to a firm's debt and/or equity. Thus, again, the firm's access to capital is enhanced.

The above conclusions assume that primary and non-primary investor interests converge, and that non-primary investors, at least, are aware of that convergence. It is possible, however, that the interests of these two classes of investors will not coincide. Primary investors, for example, may be looking for a long term financial gain, or maintenance of investment market share, in their relationship with a firm. Non-primary investors, on the other hand, may be looking for short term returns (i.e., enhanced cash flow). Thus, a primary investor's assurance that the firm's management and its (the primary investor's) interests converge may not be equivalent to saying that a non-primary investor's and firm's management's interests converge.

Because the relevant information concerning the firm's management's interests resides within the primary investor, and because the non-primary

investor relies, for this information, on the primary investor, an agency relationship obtains between the primary and non-primary investor. As before, all the wealth effects of the total agency costs between non-primary investors and primary investors -- including residual agency costs due to the continuing divergence of the interests of these two types of investors, bonding costs, and monitoring costs will be borne by the managers of the firm in their attempt to raise capital from external sources. If there were no agency costs between non-primary and primary investors, non-primary investors would be willing to pay  $P-A$  for the debt and/or equity of a firm, where  $P$  is the price of such an asset when no agency costs obtain between the investors and the firm, and where  $A$  is the residual agency costs, bonding costs, and monitoring costs due to the agency relationship between the primary investor and firm. However, suppose  $B$  is the total agency costs that obtains between primary and non-primary investors. Given  $B$ , non-primary investors will only be willing to value a firm's debt at  $P-A-B$ . Thus, again, it is in the firm's best interest to minimize  $B$ , or the agency costs that obtain between primary and non-primary investors. Because of space limitations, we will not discuss mechanisms by which firms could minimize  $B$  in any detail. However, these might include, choosing primary investors with already strong relations with non-primary investors (i.e., brokerage houses), by encouraging the primary investors to discuss their investment objectives in a public forum, etc. In general, we suspect that the divergence between primary and non-primary investors interests are usually not very large, and thus the total agency costs between these two types of investors borne by the managers of the firm in their attempt to raise capital is not very large.

#### ALTERNATIVE MECHANISMS FOR MINIMIZING AGENCY COSTS

In an earlier section of the paper, we discussed the resource dependence perspective on primary investor relationships. Based on the assumption that firms will generally minimize their resource dependence, we suggested that the primary investor relationship, from a resource dependence perspective, is an inherently unstable one. From the firm's point of view, two alternatives for minimizing resource dependence presented themselves. The first, probably more likely, alternative was to attempt to dilute the percentage of debt and/or equity held by primary investors by issuing new stock, buying back stock, issuing new debt, etc., i.e., to reestablish a simple market relationship between a firm and its external investors. A second, probably less common, alternative is for the dependent firm to attempt to extend its managerial control to include some of its external primary investors, perhaps through acquisition or forms of cooptation, i.e., establish a hierarchical relationship over the primary investor. Both these mechanisms appear likely to restructure the dependence of firms consistent with the assumptions of the resource dependence model. Below, we briefly discuss what impact these mechanisms are likely to have on the agency costs between a firm and its investors, i.e., on the ability of a firm to raise capital from all external sources.

Simple Market Relations With External Investors. Using the agency costs model we have developed, it is clear why reestablishing or maintaining simple market relations with outside investors will not enhance the ability of a firm to raise capital from external sources under conditions of high uncertainty. In simple market relations, few mechanisms exist for minimizing residual agency costs between external investors and a firm's management. While bonding and monitoring costs will be low, residual agency costs will be high, and because capital markets are efficient, firms' managers will bear these residual costs in their attempts to raise capital. In short, we would expect to

see firms facing highly uncertain and complex technological and business futures that do not have clan assisted market relations with primary investors to not have access to as much capital as firms facing similar situations that did maintain these types of relationships.

Hierarchical Relations with External Investors. A firm attempting to extend its managerial control over some of its external primary investors to restructure its dependence, either through acquisition, cooptation, or some other mechanism, has the same impact as reestablishing or maintaining simple market relations with those investors on a firm's ability to acquire capital. While the extension of control may enhance capital flow from the newly controlled investor to the firm, no positive signal concerning the convergence of external investor's and management's interests is communicated to the remainder of the capital markets. In short, controlling primary investors, either formally or informally, has the effect of establishing simple market relations between the firm and all remaining and potential external sources of capital. As long as the firm needs to look beyond its primary investors to fully capitalize its business, this approach to resource dependence minimization will limit their ability to raise capital.

#### PRELIMINARY EMPIRICAL EVIDENCE

A large number of testable hypotheses could be derived from the theoretical discussion above. We have chosen to investigate three: (1) that a firm's access to capital is enhanced if its debt and/or equity is closely held by a small number of external investors (the primary investor hypothesis), (2) that a firm's access to capital is enhanced if it maintains a clan assisted market relation with a small number of primary investors (the clan assisted market hypothesis), and (3) that a firm's access to capital is negatively affected by attempts to maintain clan assisted market relations with a large number of

primary investors (the "small number" hypothesis). The first two hypotheses follow directly from our discussion above. The third follows from our discussion of minimizing bonding/monitoring costs of clan assisted market relations by limiting the number of such relations.

We make two important theoretical assumptions in the analyses below. The first is that the capital markets we are studying are efficient in the sense discussed above. The second is that it is uniformly difficult for outside investors to evaluate the motivations and performance of managers in all the organizations included in our sample. This second assumption requires further elaboration.

In our discussion above, we suggested that a clan assisted market relationship with outside investors would be necessary to minimize residual agency costs of debt and equity when outside investors had great difficulty in completely and accurately evaluating the motivations and performance of managers in a firm, i.e., when conditions of high performance accounting ambiguity obtained between investors and managers (Ouchi and Barney, 1982). This transaction specific uncertainty and ambiguity should be distinguished from the broader concepts of environmental uncertainty and ambiguity more commonly used in organization theory (Thompson, 1967). While these two types of uncertainty might, in some circumstances, be related, we have not yet developed direct measures of the degree of performance accounting ambiguity that exists between external investors and the managers of a firm. Thus, we do not directly test this part of our theoretical discussion.

However, to test the three hypotheses that we do, we have adopted an approach similar to that used in Modigliani and Miller (1958) and Weston (1963). That is, we have chosen a sample in which this transaction specific performance accounting ambiguity is likely to be relatively homogeneous and high. Thus, according to our theory, the three hypotheses we test should hold

in this population of firms. In particular, our sample includes 139 publicly held Japanese electronics firms.<sup>4</sup> The electronics industry has many characteristics that seem likely to be related to high performance accounting ambiguity between external investors and firm managers, i.e., uncertain technological future, uncertain business demand, long technological life cycles, etc. Thus, while ultimately our uncertainty hypothesis needs to be directly tested, by carefully choosing our sample, we are able to test other implications of our theoretical discussion.

The Primary Investor Hypothesis. In all three models estimated, we have taken a firm's total debt divided by a firm's sales in 1979 as our dependent variable. Total debt includes both long and short term debt. In Japan, firms typically hold a relatively large percentage of their total debt in a short term form, and renew this short term indebtedness regularly approximately every ninety days. Thus, most short term debt effectively takes on the form of long term debt in Japan (Ballon, Tomta, and Usami, 1976). We chose to focus on debt in our models, as opposed to total capital generated from external sources (i.e., debt plus equity) because (1) we use equity share holdings as our independent variables in the regression analyses and wish to avoid possible tautologies, and (2) because Japanese firms traditionally rely much more heavily on debt financing, as opposed to equity financing. This latter point is indicated by the well-known differences between the average debt/equity ratios for U.S. and Japanese firms (Ouchi, 1981). We divided total debt by a firm's sales to minimize the affect of organizational size in our analysis. Generally, larger firms will have larger indebtedness. In our

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<sup>4</sup> As we discussed earlier, the use of Japanese firms in our empirical work is a reflection of the regulatory environment currently facing U.S. firms -- an environment that officially discourages the types of relations we predict as being efficient.

sample, the correlation between total debt and sales, as a measure of organizational size, is .393. By computing our dependent variable as we have, we effectively control for this size effect.

One further comment concerning our use of total debt divided by sales as our dependent variable in the following analyses is in order. In our theoretical discussion of the agency costs of debt, it was suggested that a rational investor, anticipating residual agency costs, as well as bounding and monitoring costs, will only accept a firm's indebtedness at a higher level of interest than the firm would have to pay if no agency costs existed. Thus, firms that have been able to minimize the total agency costs of debt should be able to borrow money at a lower interest rate than firms who are unable to minimize their total agency costs of debt. Our use of total debt as our dependent variable follows directly from this discussion, and is based on the observation that firms paying a lower interest rate (i.e., who have minimized their total agency costs of debt) will be able to borrow more money than those firms who must pay a higher interest rate (i.e., who have not been able to minimize their total agency costs of debt). Moreover, the use of total debt divided by sales is consistent with our emphasis on a firm's access to external capital.

The primary investors hypothesis suggests that a firm's access to capital is enhanced by having its debt and/or equity held by a relatively small set of external investors. Three classes of external institutional investors are relevant in Japanese capital markets: other corporations (both in electronics and other industries), banks, and insurance companies. The percentages of a firm's equity held by its three largest corporate, bank, and insurance company investors were taken as independent variables in a regression analysis. Residual analysis revealed a strong nonlinearity in the model, and squaring each of the independent variables generated the desired residual patterns. This model is presented in Table Two.

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TABLE 2 ABOUT HERE  
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The Clan Assisted Market Relation Hypothesis. Data for these analyses were collected from published reports compiled in the Japanese Company Handbook, 1981. In describing the entries for each firm, authors of the handbook suggested that if a particular bank is listed both as a business reference and a major stockholder for a firm, that very "close relations" exist between that bank and firm (Oriental Economist, 1981:24). We have used this observation as the basis of our definition of a clan assisted market relation between a bank and a firm. The variable we use in the model is the total percentage of a firm's equity held by banks who are business references for a firm divided by the total number of bank business references holding equity in the firm, both in 1979. The logic underpinning this particular variable is presented in a convenient form in Table Three. If a small percentage of a firm's equity is

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TABLE 3 ABOUT HERE  
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held by reference banks, it is presumed that no clan assisted market relation exists between a firm and these banks. If a large number of reference banks each hold small percentages of a firm's equity shares, the situation in the lower right hand cell of Table Three obtains. Again, in this case, no clan assisted market relation between firms and banks is presumed to exist. Only in the case where a small number of reference banks together held a relatively large percentage of a firm's equity is a clan assisted market relationship presumed to exist. Based on our theoretical discussion, we would predict that only in this latter case--a small number of reference banks holding a large percentage of a firm's equity--would we expect to see a positive impact on the

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TABLE TWO: A Test of the Primary  
Investor's Hypothesis

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TOTAL  
DEBT/SALES = .107 + .0000256(CORPORATE OWNERS)<sup>2</sup>  
(t = 2.131)\*

+ .000174 (BANK OWNERS)<sup>2</sup>  
(t = 2.444)\*

+ .000237 (INSURANCE OWNERS)<sup>2</sup>  
(t=1.98)\*

\*Significant at .01 level (One tailed test)  
Multiple R = .245      F<sub>3,135</sub> = 2.878  
Residuals Showed No Pattern

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TABLE THREE. Clan Assisted  
Market Relations

Percentage of a firm's shares  
held by all of a firm's reference banks

	LO	HIGH
Number of Reference Banks Holding a Firm's Equity	LO	Clan Assisted Market Relation
	HI	

ability of a firm to acquire capital. By dividing the total percentage of a firm's equity held by its reference banks by the number of its reference banks that hold equity shares, we capture the situation depicted in Table Three. Only in the case where the percentage of stock held is large and the number of holders is small will this variable be relatively large. In all other cases, it will be small. Thus, in accordance with our theory, we would expect to see a positive correlation between this variable and a firm's access to capital.

Again, taking total debt divided by sales a dependent variable, the model presented in Table Four was estimated. Again, nonlinearities were present and

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TABLE FOUR ABOUT HERE  
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dealt with by the indicated transformations. The percentage of stock held by the top three corporate investors was included as a control variable. Percentage equity held by banks and insurance companies were not included because of multicollinearity with our clan assisted market relation variable.

The "Small Number" Hypothesis. Part of our discussion of the clan assisted market hypothesis was the notion that attempts to maintain numerous clan assisted market relations was likely to be costly to a firm, and, because of efficient capital markets, these costs would be borne by the firm in its attempts to acquire capital. It was not possible to test this hypothesis with the model reported in Table Four, because our variable for clan assisted market relations did not distinguish among the cases where the percentage of equity held by reference banks was low and the case where the percentage of equity held by reference banks was high and the number of such banks was also high. To capture these distinctions, the model reported in Table Five was estimated. The independent variable in this model, the percentage of equity held by reference banks times the number of such banks, according to our

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TABLE FOUR: A Test of the Clan Assisted  
Market Relation Hypothesis

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$$\begin{aligned} \text{TOTAL} \\ \text{DEBT/SALES} &= .140 + .0000159(\text{CORPORATE OWNERS})^2 \\ &\quad (t = 1.408)^* \\ &+ .00134 (\% \text{ STOCK HELD BY REF. BANKS/NO.} \\ &\quad \text{OF SUCH BANKS})^2 \\ &\quad (t = 1.838)^{**} \end{aligned}$$

\*Significant at .1 level (One-tailed test)

\*\*Significant at .05 level (One-tailed test)

Multiple R = .166       $F_{2,136} = 1.929$

Residuals Showed No Pattern

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"small number" hypothesis, should have a negative correlation with a firm's ability to acquire capital.

Discussion of Results. All coefficients in all models has signs consistent with theoretical expectations. Moreover, all theoretically relevant

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TABLE FIVE ABOUT HERE  
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independent variables were statistically significant at at least the .051 level. Only the control variable (CORPORATE OWNERS)<sup>2</sup> in Table Four was not significant at this level, and it was significant at the .1 level.<sup>5</sup> The non linear terms in the first two models indicate that the strength of the predicted relationships, though still consistent with our theoretical analysis, decreased in strength as our independent variables increased in size. That is, a firm's access to capital is enhanced, but at a decreasing rate, as the percentage of its stock held by primary investors and the strength of its clan assisted market relations increase. This nonlinear affect may be due to a relatively small number of firm/investor relations in Japan, where primary investors owned upwards to 50% of a firm's outstanding equity. The relatively low multiple correlation coefficients, and attendant low R<sup>2</sup> statistics, probably indicate that the phenomena we are studying here is marginal, in the sense that these processes enhance or diminish a firm's access to capital, given a particular level of firm demand for capital. We investigated several possible indicators of a firm's demand for capital (i.e., capital intensity, growth in sales, etc.). However, perhaps due to inadequacies in our data set,

<sup>5</sup> All significant tests were One-tailed because strong predictions concerning the direction of the relationships were derived from our theoretical discussion (Blalock, 1972).

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TABLE FIVE: A Test of the "Small Number"  
Hypothesis

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TOTAL  
DEBT/SALES = .198 - .000857(% STOCK HELD BY REF BANKS  
(t = 1.602)\* x NO. OF SUCH BANKS)

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\*Significant at .051 level (One-tailed test)  
Multiple R = .136  $F_{1,136} = 2.566$   
Residuals Indicated One Firm (Toko, Inc.)  
was an outlier. It was deleted. Additional  
Analysis Indicated No Residual Patterns.

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particularly a relatively small sample size, no adequate measures could be incorporated into our models.<sup>6</sup>

In sum, though tentative in nature, our analyses are quite suggestive and consistent with the theoretical discussion above.

## VI. CONCLUSION

In this paper, we have combined insights from the theory of corporate finance and organization theory in the analysis of the relationship between a firm and its primary investors. We have suggested that firms enhance their access to external capital by developing clan assisted market relations with a small number of these primary investors. We then tentatively tested some of the implications of our theoretical discussion in a sample of Japanese electronics firms. Though only suggestive, the results of our tests were consistent with theoretical expectations.

While the primary objective of our discussion and analysis was to understand the relationship between a firm and its primary investors, a secondary objective was to suggest and exemplify a theoretical approach in organizational analysis as an alternative to resource dependence models. Consistent with arguments developed in Ouchi and Barney (1982), Ouchi (1980), and Williamson (1975; 1979), this alternative takes transactional efficiency, rather than power, as a central issue. We believe this efficiency model has additional implications for organizational theory that deserve continuing research and analysis.

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<sup>6</sup> In particular, a high level of multicollinearity existed between the indicators of firm demand for capital and our theoretical variables.

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