THE EFFECTS OF AGENCY AND PROPRIETARY COSTS ON CORPORATE FINANCIAL DISCLOSURES

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THE EFFECTS OF AGENCY AND PROPRIETARY COSTS

ON CORPORATE FINANCIAL DISCLOSURES

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The extent of financial disclosures among corporations vary greatly. Some corporations voluntarily provide substantially more information than that which is mandated while others make available only the bare minimum to satisfy the legal or regulatory requirements. Corporate financial disclosures narrow the information gap between the firm and investors/debtholders (present/potential) and assist in reducing the agency costs of the firm. Past studies, however, have not documented results consistent with the agency costs explanations for disclosures. An important factor that affects incentives for financial disclosures is the presence of proprietary costs of disclosure. Research on proprietary costs of disclosure affecting firms' disclosure policies are, however, lacking.

This study investigates the role of agency theory and proprietary costs theory in explaining firms' financial disclosure policies. Disclosures examined are grouped into four categories: (1) annual reports, (2) other publications, (3) investor relations, and (4) the overall disclosures of the firm. The proxy for firms' financial disclosures are obtained from the annual reports of the Corporate Information Committee of the Association of Investment Management and Research.

Financial disclosures are predicted to be increasing with agency costs and decreasing with proprietary costs of disclosure. The agency costs proxies include

managerial ownership, leverage, and ratio of assets in place to growth opportunities. The proprietary costs of disclosure is surrogated by the sum of advertising and research and development expenditures, deflated by net sales.

The results of this study provide evidence that are consistent with the agency costs explanations for disclosures. Support for the proprietary costs hypothesis is, however, evident only for the investor relations category. Results for the interaction effects of agency costs and proprietary costs are weak. Only the interaction term between managerial ownership and the proprietary costs variable is supported for the other publications category.

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I would like to dedicate this dissertation to the memory of my father, Low Boon Khooi.

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CHAPTER 1

INTRODUCTION

Corporate financial disclosure facilitates functioning of capital market (Gibbins, Richardson, and Waterhouse 1992; Watts and Zimmerman 1986) and lies at the heart of financial accounting (Emmanuel and Garrod 1992). The extent of disclosures among corporations, however, vary greatly. Some corporations voluntarily provide substantially more information than that which is mandated while others make available only the bare minimum to satisfy the legal or regulatory requirements.

Prior studies suggest that the extent of corporate financial disclosures is a function of firm size (Cerf 1961; Singhvi and Desai 1971; Buzby 1974 & 1975; Chow and Wong-Boren 1987; Cooke 1989 & 1992; Susanto 1992; Hossain, Tan, and Adams 1994), listing status (Cerf 1961; Singhvi and Desai 1971; Cooke 1989 & 1992; Williams 1992; Hossain et al. 1994), industry type (Stanga 1976), profitability (Singhvi and Desai 1971), extent of leverage (Malone, Fries, and Jones 1993), and ownership status (Hossain et al. 1994). The only consistent finding among these studies is that the extent of corporate disclosures often vary with firm size. Other firm-specific characteristics are not as consistent.

Several of these studies use an agency framework (Chow and Wong-Boren 1987; Malone, Fries, and Jones 1993; Hossain, Tan, and Adams 1994) to explain variations in the extent of firms' disclosures. Corporate financial disclosures play an important role in reducing the agency costs and agency conflicts between managers-shareholders and shareholders-debtholders (Jensen and Meckling 1976; Smith and Warner 1979; Barnea, Haugen, and Senbet 1985; Watts and Zimmerman 1986; Lev 1992).

Findings of these studies are inconsistent and mostly insignificant. Chow and Wong-Boren (1987) find no significant association between leverage and financial disclosures while Malone, Fries, and Jones (1993) document a significant positive association between leverage and disclosures. Results relating disclosures to firm's investment opportunity sets are generally insignificant (Chow and Wong-Boren 1987; Hossain, Tan, and Adams 1994).

Previous disclosure studies focus only on the financial disclosures in annual reports (Chow and Wong-Boren 1987; Malone, Fries, and Jones 1993; Hossain, Tan, and Adams 1994). Even though the annual report is the main vehicle of communication for a firm, other means of disclosures exist. Examples are quarterly reports, press releases and personal contact through firms' investors relations personnel. Compared to annual reports, these other disclosure vehicles are much more flexible, timely and relevant. Furthermore, quarterly reports, press releases, and investor relations efforts provide information that is potentially important in reducing

agency costs. No study of the effect of agency costs on financial disclosures is complete without examining all means of disclosures.

Another framework for explaining variations in firms' financial disclosures is the proprietary cost theory (Verrecchia 1983). An important factor that affects incentives for financial disclosures is the presence of proprietary costs of disclosures (Verrecchia 1983; Gibbins, Richardson, and Waterhouse 1992). Proprietary costs of disclosures are costs associated with disclosing proprietary information.[1] Many firms object to additional disclosures on the ground that additional disclosures may have adverse effects on their competitive position (Gibbins, Richardson, and Waterhouse 1990; Gray, Radebaugh, and Roberts 1990).

The proprietary costs theory has been examined in various disclosure issues including disclosure of pension data (Scott 1994), interim reporting (Potter and Rayburn 1993), and management earnings forecasts reported in MD&A section of annual reports (Clarkson, Kao, and Richardson 1994). No research, however, has examined the effects of proprietary costs on the extent of corporate financial disclosures.

[1] Proprietary costs of disclosures can be categorized into two major groups: (1) the costs of litigation attributable to disclosures, and (2) the costs of competitive disadvantage attributable to disclosures (AICPA 1994). The proprietary costs of disclosures analyzed in this study relate to only the competitive disadvantage costs (Foster 1986).

1.1 Purpose of the Study

The purpose of this study is to examine whether firms' financial disclosures are related to the agency variables of managerial ownership, leverage, and investment opportunity set, after controlling for size and performance. Firms' financial disclosures examined are grouped into four categories: (1) annual reports, (2) other publications including quarterly reporting, (3) investor relations efforts, and (4) overall disclosures of the firm.

In addition, this study examines an important factor neglected by past studies--the mediating effects of proprietary costs on financial disclosures. In disclosing financial data, firms face a tradeoff between expanding financial disclosures to reduce agency costs, and withholding information to avoid jeopardizing the firms' competitive advantage. *Interaction effects* of agency costs and proprietary costs may have played an important role on financial disclosure. An examination on the interaction effect will provide further insights to the cost-benefit tradeoff of firms' financial disclosures.

1.2 Importance of the Study

In the midst of today's corporate takeover and restructuring environment where shareholders and debtholders monitor corporations much more closely (Useem 1993), the issue on the extent of financial disclosures is important to both management and investors. Lev (1992, 15) contends that:

> " ... a disclosure strategy that effectively disseminates timely, relevant, and credible information, allowing outsiders to evaluate the firm and its

> management in an effective low-cost manner, will not only narrow the information gap but will create shareholder value by decreasing the agency costs which depress values. Such value creation by disclosure is permanent and not just a correction of a temporary undervaluation."

The extent to which financial disclosures may assist in reducing agency costs is yet to be determined (Gibbins, Richardson, and Waterhouse 1992). Empirical evidence on the agency explanations for financial disclosures are much needed.

An examination of the proprietary costs of disclosures will be of interest to policy makers. The findings will provide an empirical indication of the effects of proprietary information in discouraging financial disclosures. Before disclosures are mandated, policy-makers should consider the economic impact of proprietary costs affecting disclosures.

1.3 Research Methodology

This study uses ordinary least squares estimation to examine the effects of agency costs and proprietary costs on the extent of corporate financial disclosures. The proxy for firms' financial disclosures are obtained from the annual reports of the Corporate Information Committee (CIC) of the Association of Investment Management and Research. Agency costs are measured by managerial ownership, leverage and investment opportunity set, which is measured as the ratio of assets in place to growth opportunities. Proprietary costs are measured by the sum of advertising and research and development expenditures, deflated by net sales.

The firms included in the annual CIC reports for 1989-1991 provide the potential samples for this study. Final samples include those firms with data available for selected variables from *Compustat* and managerial ownership available from proxy statements or 10-K reports.

1.4 Results

The results of this study provide evidence that are consistent with the agency costs explanations for disclosures. Support for the proprietary costs hypothesis is, however, evident only for the investor relations category. Results for the interaction effects of agency costs and proprietary costs are weak. The interaction term between managerial ownership and the proprietary costs variable is supported only for the other publications category.

1.5 Limitation and Suggestion for Future Research

This study uses the sum of advertising and R&D expenditures, deflated by net sales (ARD) as the selected proxy for proprietary costs of disclosure. ARD, however, may also proxy for future growth opportunities (Myers 1977). Future research is required to examine alternative proxies for proprietary costs of disclosure. Besides R&D expenditures, other proxies suggested by King, Pownall, and Waymire (1990, 133) include: (1) the number of patents for which the firm applies, (2) the frequency of litigation over corporate patent rights, and (3) measures of competitiveness in the firm's product market.

1.6 Organization of the Study

The remainder of this study is organized as follows. A review of the literature pertinent to this study is presented in Chapter 2. The theoretical framework and development of hypotheses are presented in Chapter 3. Chapter 4 describes the research methodology and Chapter 5 presents the empirical results. Chapter 6 summarizes this study and discusses conclusions and limitations.

CHAPTER 2

LITERATURE REVIEW

Most studies examining the relationship between firm characteristics and the extent of firm's financial disclosures utilize a "disclosure index" methodology. This chapter reviews prior research in this area. A few studies examining corporate financial disclosure policies based on the extent of interim reporting, reporting of segment data, pension data, or oil and gas reserves are also presented to provide additional insights to an understanding of variations in firms' financial disclosure policies.

2.1 Corporate Financial Disclosures and Company Characteristics

Several studies examining variations in disclosure levels among firms utilize a "disclosure index" framework to assess the relationship between the extent of corporate financial disclosures and firm characteristics. Most of the disclosure indexes are concocted by the researchers.

Cerf (1961) is among the first to utilize the disclosure index to examine the relationship between the extent of financial disclosures in annual reports and firm characteristics. Cerf develops an index of disclosure based on 31 items considered

likely to appear in annual reports and are important for investment decision-making. He assigns weights to the items according to the importance indicated by analysts that he interviewed. The disclosure index checklist is then applied to the annual reports of 527 U.S. companies to determine the extent of the companies' disclosures. The resulting disclosure scores are then related to three independent variables: assets size, number of stockholders, and listing status. The results suggest a positive relationship between the three independent variables and the disclosure scores.

Singhvi and Desai (1971) extend Cerf's study by examining three additional company characteristics that may explain variations in firms' disclosures. Their checklist includes 34 items of information considered to be relevant to investment decision-making. Annual reports of 155 U.S. corporations are rated using the disclosure checklist. Singhvi and Desai find that the extent of disclosures are positively associated with assets size, number of shareholders, rate of return, earnings margin, listing status and auditor firm size.

Moore and Buzby (1972) raise some concerns about Singhvi and Desai's (1971) study regarding the construction and use of an unweighted disclosure index and the study's statistical design. Buzby (1975) improves on previous studies by constructing a weighted disclosure index to assess the relationship between the extent of voluntary disclosures and asset size and listing status, two variables common in the Cerf and Singhvi and Desai studies. Buzby employs a list of 39 items relevant to financial analysts to determine the disclosure index. The information items are weighted based on surveys of financial analysts. The checklist is applied to the annual reports of a

matched-pair analysis of 44 listed (New York Stock Exchange or the American Stock Exchange) versus 44 unlisted (Over-the-Counter) firms (matched in terms of assets size, three-digit industrial classification, and fiscal-year-ends). Buzby finds that the extent of disclosures is positively related to assets size and not affected by the listing status.

Results of subsequent disclosure index studies find that the extent of financial disclosures is a function of firm size (McNally, Eng and Hasseldine 1982; Chow and Wong-Boren 1987; Cooke 1989 and 1992; Susanto 1992; Hossain, Tan, and Adams 1994; Wallace, Naser, and Mora 1994), listing status (Cooke 1989 and 1992; Malone, Fries, and Jones 1993; Hossain et al. 1994; Wallace et al. 1994), industry type (Stanga 1976; Cooke 1992), leverage (Malone, Fries, and Jones 1993) and ownership status (Hossain et al. 1994).

The number of items forming the basis of the disclosure index vary from 17 (Barrett 1976) to 224 (Cooke 1989) and may comprise mandatory and/or voluntary items of disclosure compiled from a review of literature sources, and discussions with various user groups, including financial analysts, auditors, and bank loan officers. The relative importance of each information item is usually gathered by conducting interviews or through questionnaire surveys of user groups. The researcher-created disclosure indexes may be weighted (either subjectively by the researcher(s) alone or by the researcher(s) using weights elicited from interviews or surveys of users' perceptions) or unweighted. Chow and Wong-Boren (1987) demonstrate that there may be no significant difference between weighted and unweighted disclosure indexes.

2.2 Other Disclosure-Related Studies

Interim Reports

Based on the agency framework of Jensen and Meckling (1976), Leftwich, Watts, and Zimmerman (1981) hypothesize that the frequency of external reporting by U.S. listed companies are related to debt/equity ratios, asset structures, and use of other monitoring devices. Leftwich et al. examine the disclosure of interim reports as a discretionary choice of monitoring arrangements. Results on the capital and asset structures fail to support the monitoring predictions of agency theory.

Potter and Rayburn (1993) investigate the impact of earnings quality on the interim disclosure choice of firms prior to mandatory quarterly reporting. Results indicate that firms with higher quality earnings are more likely to be reporting on a quarterly basis than firms with low quality earnings. The nondisclosing firms have fewer shareholders, less diversification, and larger quarterly earnings prediction errors than firms that chose to report quarterly.

Financial Segment Data

Bradbury (1992) and McKinnon and Dalimunthe (1993) examine the economic incentives for firms to voluntarily disclose segment information. Bradbury examines New Zealand firms and finds that the extent of segment disclosures is significantly related to firm size, and financial leverage, but not to assets in place, earnings volatility, or the importance of foreign funding to the firm. McKinnon and Dalimunthe provide evidence relating to segment disclosures of Australian companies. Their results suggest disclosures to be related to ownership diffusion, level of minority interest in

subsidiaries, firm size and industry membership. No support is found for leverage or diversification into related versus unrelated industries.

Oil and Gas Reserves

Craswell and Taylor (1992) examine the discretionary disclosure of reserves by oil and gas Australian companies within an agency framework (Jensen and Meckling 1976). The premise of their study is that voluntary disclosure of reserves are viewed as a means of reducing agency costs. Craswell and Taylor (1992, 297) recognize that proprietary costs of disclosure "tend to encourage non-disclosure, offsetting, to some extent, the impact of those agency costs which are expected to induce managers to disclose information." They do not explicitly test the proprietary cost theory, and argue for a simple control for proprietary costs of disclosure by restricting to industry-specific disclosure studies. Six agency variables, leverage, cash flow risk, auditor quality, separation of ownership and control, and firm size, are examined. The results provide weak support for the agency cost explanations for disclosures, supporting the positive relationship between auditor quality and disclosures.

Pension Data

Scott (1994) examines the extent of Canadian firms' voluntary disclosure of defined benefit pension plan (DBPP) information using Verrecchia's (1983) proprietary cost theory and Diamond's (1985) information cost savings arguments. Proxies representing proprietary costs related to labor are negatively associated with firms' DBPP disclosures, providing support for Verrecchia's proprietary cost theory. The results for the information cost savings hypothesis are generally not supported.