

行政院國家科學委員會專題研究計畫 成果報告

銀行業資訊透明度研究

計畫類別：個別型計畫

計畫編號：NSC92-2416-H-002-023-

執行期間：92年08月01日至93年07月31日

執行單位：國立臺灣大學會計學系暨研究所

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報告類型：精簡報告

處理方式：本計畫可公開查詢

中 華 民 國 93 年 11 月 4 日

行政院國家科學委員會專題研究計畫成果報告  
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The study of information transparency in banking industry

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### 1. 中英文摘要

本研究檢視台灣銀行業資訊揭露情況，並檢視銀行業資訊揭露水準與其公司治理之關聯性。研究結果顯示，最終控制者為政府機構的公營銀行其現金流量請求權與控制權比值顯著高於最終控制者為家族集團之銀行。平均而言，公營銀行的董事會規模比家族集團銀行大。此外，以行數衡量資訊揭露水準時，公營銀行揭露資訊顯著多於家族集團銀行。對於以表格形式揭露的資訊，本研究以0（無）及1（有）衡量其揭露水準。公營銀行與家族集團銀行在以表格揭露資訊部分，並無顯著差異。本研究實證結果並未支持股權結構會影響銀行揭露水準的假說。在公營銀行部分，董事會規模與以行數衡量的資訊揭露水準成正相關。董事會內部董事人數與以表格形式揭露資訊水準亦成正相關。然而股權結構與董事會結構均未影響家族集團銀行的揭露水準。  
關鍵詞：公司治理、股權結構、董事會結構、揭露水準、銀行業。

### ABSTRACT

This study reports the level of disclosure in banking industry in Taiwan. It also examines the association between corporate governance and disclosure level using the data provided by listed Taiwanese commercial banks. Findings indicate that the ratio of cash flow rights over control rights is significantly higher in state-owned banks. The board size of state-owned banks, on average, is larger than that of family-owned banks. In addition, state-owned banks disclosed significantly more detailed information measured by number of lines than family-owned banks. However, the disclosure level of those items that cannot be assessed by counting lines has no significant differences between state-owned and family-owned banks. Findings do not support the hypothesis that the degree of divergence between cash flow rights and control rights is associated with the disclosure level. For state-owned banks, the results show that board size is positively associated with the disclosure level measured by number of lines. The relationship between the fraction of insider-to-total directors and disclosure level of those items that cannot be

measured by counting lines is also significantly positive for state-owned banks. However, neither the ownership structure nor the board structure in family-owned banks has significant impact on the disclosure level.

Keywords: Corporate Governance, Ownership Structure, Board Structure, Disclosure Level, and Banking Industry

### 2. Research Purposes

In recent years, it has been difficult for regulators to monitor and control the increasing complexity of banking activities with traditional supervisory tools. Financial regulators therefore have growing interests in using market-related oversight to supplement their own methods of analysis, especially for large and/or complex banking organizations (Flannery, 1998). Market discipline, to be effective, requires information. Thus, the Basel Committee has sought to encourage market discipline by developing a set of disclosure requirements that allow market participants to assess key information about a bank's risk profile and level of capitalization.

Research in banking has been focused on bank competition, bank efficiency or bank regulation (see the reviews by Brown and Skully, 2003, for details). Only very few studies (e.g., Bliss and Flannery, 2001; Crabbe and Post, 1994) have investigated issues in market discipline. Helbok and Wagner (2003) is the first study that started examining the disclosure level in the banking industry. They investigated the voluntary disclosure of financial institutions with respect to operational risk during 1998 to 2001. Recently, extant literature in finance and accounting has examined the factors affecting voluntary disclosures policy and the relationship between disclosure level and costs of capital (see Healy and Palepu, 2001; Core, 2001, for reviews of the empirical literature on corporate disclosure). The purpose of this study is therefore to fill the gap by focusing on the understanding of disclosure practices and their association with corporate governance in banking industry.

This study attempts to extend prior literature in two aspects. First, we focus on mandatory disclosures in Asian emerging markets.

Greenspan (1998) suggests that it is necessary to improve transparency to prevent future financial crisis. Thus, the authorities in Asian emerging markets have taken an active role in improving the level of disclosure. In Korea, for example, the Banking Law has been amended and new regulations have been issued to improve the accounting standards. In Taiwan, all listed banks need to disclose their CPA-reviewed financial information on the websites quarterly. Despite of requirements of stock exchange and government regulators, certain bank managers still disclose selectively, especially when the monitoring and enforcement of disclosure requirements are not strict in Asian emerging markets. Thus, the extent of compliance becomes an important issue when we investigate the level of disclosure.

Second, the current study includes corporate governance variables such as ownership structure and board structure in the examination of the factors affecting the firm's disclosure policy. In addressing the question about the relationship between disclosure level and other corporate governance mechanisms, the current study is particularly concerned with generating insights that can assist banks in Asian emerging markets.

Lack of transparency by banks has frequently been blamed for the recent financial crises in Asian emerging markets (International Monetary Fund, 2001). Despite efforts to impose stricter reporting rules and standards, the general perception is that corporate transparency in Asia has been declining (Asian Wall Street Journal, 1999). Furthermore, the ownership of commercial banks in the Asian emerging markets is highly concentrated. The analysis of Asian commercial banks allows us to study the subject of disclosure level in the ownership context that is different from that in the United States.

Our empirical tests examine the relations between ownership structure and disclosure level after controlling for variables known to have impacts on firms' disclosure. We also investigate the association between board structure and the level of disclosure.

### **3. Research Design**

#### **3.1 Disclosure Level: the dependent variables**

The measures of disclosure level used in this study are collected based on the recent mandatory requirements in Taiwan for banking industry. In particular, the items selected were guided by the mandatory disclosures regulated or issued by the Ministry Of Finance, the Securities and Futures Commission, and the Accounting and

Research Development Foundation in Taiwan. The three authorities have issued three kinds of regulations related to disclosure of information in banking industry.

Per regulations, banks should disclose all of mandatory items. However, the amount of information in each item may differ among banks. To understand the differences in disclosure level, we assess the disclosure level (DISC1) by counting the number of lines allocated to each mandatory disclosure item. The similar method has been employed by Copeland and Fredericks (1968), and Walker and Tsaltas (2001). In addition, Helbok and Wagner (2003) measure the extent of disclosure by counting the number of words and the number of pages allocated to operational risk section on the annual report.

Some items are disclosed in tabular form such as balance sheet, income statement, statement of capital adequacy, or statement of asset quality. Those items cannot be assessed by counting the number of lines. Following the indexing procedure used by Wiseman (1982) and Freedman and Wasley (1990), we choose to use an unweighted score scheme where banks are awarded one score point for each item they disclose. The disclosure level (DISC2) is the total points earned by a given bank during sample period.

#### **3.2 Testing Variables: Corporate governance variables**

##### Ownership structure

Cash flow rights of the ultimate owner in this study include shares owned by all family members, shares owned by nominal investment companies, and other legal entities that effectively controlled by the family and shares cross-owned by affiliated companies (Chiu, 2003). Control rights held by the ultimate owner is defined as the sum of three types of direct and indirect resources: (1) the shares directly owned by family members; (2) the cross-shareholdings of listed companies in the same conglomerate group and the indirect shareholdings through pyramid structure; and (3) the shareholdings of the nominal agents controlled by the family. The ratio of cash flow rights over control rights is used to measure the degree of divergence between cash flow and control right.

##### Board structure

Our study investigates whether board structure affects the level of disclosure. Two measures of board structure were used: (1) the fraction of insiders serving on the board, and (2) board size. Board size is defined as the number of

directors at the end of fiscal year. Consistent with other studies (e.g., Vafeas and Afentios, 1998; Vafeas, 2000), insider directors are defined as those who are active or retired firm employees, their relatives, or employees of subsidiaries.

### 3.3 Data

Our sample contains listed commercial banks in Taiwan from 2000 to 2001. In total, thirty commercial banks are listed in Taiwan Stock Exchange Corporation (TSEC) and three banks are traded Over-the-Counter (OTC) during our sample period. Financial data were obtained from the Taiwan Economic Journal Database. Information on ownership structure (cash flow rights and control rights), board size and composition of board were collected from bank prospectuses, annual reports and China Credit Information Service.

## 4. Descriptive Statistics

### 4.1 Descriptive Statistics for disclosure level

Banks tend to report more on the Item “*the overview of the company’s financial status*” with an average of 367.46 lines, followed by the Item “*the overview of the business operations*” with an average of 172.37 lines. On the contrary, banks report less on the Items such as “*letter to shareholders*”, with an average of 63.66 and Item “*special items*”, with an average of 69.34 lines. Further analyses indicate with the exception of the “*letter to shareholders*” and “*the overview of financial status*”, there exist no significant differences on the disclosure quantity between state-owned and family-owned banks. It is showed that all banks provide information related to “the overview of the company’s financial status.”

Bank reports on average less than 10 lines on the Item “*Management information*” under the “Regulations governing quarterly disclosure of material financial and business information by banks”. Seven banks do not even disclose information for this item. All banks provide information related to the “*balance sheet*” and “*income statement*”. Approximately 90 percent of banks disclose profitability, liquidity, and market risk sensitivity in years 2000 and 2001. Although banks are required to disclose the information about the capital adequacy and asset quality since 2000, approximately 10 percent of sample banks did not disclose these items in the annual report.

Banks disclose less in these financial items. The most detailed information banks provide is the Item “*accounting policy*” (an average of 28.07

lines), the least is the Item “*assets pledged as security*” (an average of .34 lines). Forty-nine banks (80.4 percent) do not disclose this item, eleven banks (18.0 percent) disclose one line about this item, and only one bank describes this item more than one line. For the Item “*significant concentrations of assets, liabilities and off-balance-sheet items*”, banks are expected to disclose any significant concentrations of its assets, liabilities and off-balance-sheet items in terms of geographical areas, customer or industry groups or other concentrations of risk. However, two banks do not provide any information about this item, and the mean of this disclosure is only 5.52 lines.

### 4.2 Descriptive Statistics for variables

The ultimate owners of twelve banks (35 percent) are government, 20 banks (59 percent) are family controlled conglomerates, and two banks are widely held banks in year 2000. For state-owned banks, the mean (median) of DISC1 is 1,003.22 (1,009.65) lines, whereas the mean (median) of the DISC1 in family-owned banks is 844.65 (845.78) lines. It indicates that state-owned banks disclose significantly more detailed information than family-owned ones do. The mean and median of DISC2 do not show significant difference between state-owned and family-owned banks.

In state-owned banks, the mean CC ratio is 0.86, which is significantly higher than that in family-owned banks (.48). For the fraction of insider-to-total directors (INSID), on average, two insiders serve on the board of the state-owned banks whereas 2.44 inside directors on the board of the family-owned banks. For the board size (BOARD), state-owned banks have, on average, 15 directors in the board with a minimum of 7 directors and a maximum of 27 directors. The board size of family-owned banks ranges from 6 to 26 directors and the average is 13. Both INSID and BOARD do not have significant difference between state-owned banks and family-owned banks.

## 5. Empirical Results

### 5.1 Empirical Analysis of Hypothesis One

$$DISC1_{i,t} = a_0 + a_1CC_{i,t} + a_2OVERDUE_{i,t} + a_3SIZE_{i,t} + \varepsilon_1 \quad (1)$$

$$DISC2_{i,t} = b_0 + b_1CC_{i,t} + b_2OVERDUE_{i,t} + b_3SIZE_{i,t} + \varepsilon_2 \quad (2)$$

The regression results show that the coefficients of CC ratio in equations (1) and (2) are insignificant, suggesting the degree of

divergence between cash flow and control rights seems not to affect the level of disclosure. Although the coefficient of OVERDUE in equation (2) is significantly positive, the relationship between DISC2 and the overdue loan ratio is spurious. The reason is that bank managers must disclose information to comply with the regulations no matter how high the overdue loan ratio. However, bank managers can choose to disclose less information. Thus, the number of lines they disclose will decrease when the overdue loan ratio become higher. In addition, the disclosure level is significantly positively associated with the firm size, which is consistent with Land and Lundholm (1993, 1996).

To examine whether the type of ultimate owner will affect the relationship between the ownership structure and the level of disclosure, the sample was split into two subsamples (i.e., state-owned and family-owned) and regressions in equations (1) and (2) were reexamined. The results are consistent with the OLS estimates for full sample. Our findings show that larger state-owned banks tend to disclose more information.

## 5.2 Empirical Analysis of Hypothesis Two

$$DISC1_{i,t} = c_0 + c_1INSID_{i,t} + c_2BOARD_{i,t} + c_3OVERDUE_{i,t} + c_4SIZE_{i,t} + \varepsilon_3 \quad (3)$$

$$DISC2_{i,t} = d_0 + d_1INSID_{i,t} + d_2BOARD_{i,t} + d_3OVERDUE_{i,t} + d_4SIZE_{i,t} + \varepsilon_4 \quad (4)$$

The results reveal that the coefficient of INSID in equations (3) and (4) are insignificant, suggesting the fraction of insider-to-total directors does not affect the disclosure level. In addition, the coefficient of BOARD is insignificantly positive.

While separating the sample into state-owned and family-owned groups, the results show that for state-owned banks, the board size is significantly positively associated the disclosure level measured by number of lines. It suggests that the state-owned banks with larger board size disclose more detailed information. Furthermore, for state-owned banks, the coefficient of INSID is significantly positive in equation (4), suggesting state-owned banks with more inside directors serving on the board disclose more items that cannot be assessed by counting lines. One possible explanation is that the inside directors of state-owned banks are assigned by the government. They represent the government to

monitor banks to disclose more information.

## 6. Conclusions

This study examines the relationship between disclosure level and the corporate governance of banking industry in Taiwan. We focus on banking industry because corporate governance problems and transparency issues are important in banking due to the crucial role in providing loans to non-financial firms, in transmitting the effects of monetary policy and in providing stability to the economy as a whole. We examine the issue of corporate governance from the perspective of ownership structure and board structure. Our results show that the ratio of cash flow rights over control rights is significantly higher in stated-owned banks. The board size of state-owned banks, on average, is significantly larger than that of family-owned banks. In addition, the level of disclosure measured by number of lines in state-owned banks is significantly higher than that in family-owned banks. The level of disclosure measured by items that cannot be assessed by counting lines, however, has no significant differences between state-owned and family-owned banks. The regression results show that the ratio of the cash flow rights over control rights is insignificantly associated with the disclosure level, which fails to support the H<sub>1</sub>. For state-owned bank, our findings show that the board size is significantly positively associated with the level of disclosure measured by number of lines. Furthermore, the relationship between the fraction of insider serving on the board and disclosure level proxied by DISC2 is significantly positive in state-owned banks.

Our findings seem to suggest that regulators and examiners in banking should reinforce the compliance of disclosure requirements in the early stage of the enforcement in addition to promoting the corporate governance mechanism, especially for family-owned banks. The results of this study should be of interest to international organizations seeking to improve the information transparency in banking in the emerging markets such as Asian-Pacific Region.

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