Discretionary Loan Loss Provisions
And Earnings Management
For The Banking Industry

Ruey-Dang Chang, (Email: raychang@mail.nsysu.edu.tw), National Sun Yat-Sen University, Taiwan
Wen-Hua Shen, (Email: js1216@ms6.hinet.net), National Sun Yat-Sen University, Taiwan
Chun-Ju Fang, (Email: fcj@thu.edu.tw), Tunghai University, Taiwan

ABSTRACT

The purpose of the study is to investigate the relation between discretionary loan loss provisions and 6 indicators of bank operating performance for the period 1999-2004 under controlling the type of bank, ownership status and asset size. Besides, we investigate whether bank managers intend to use discretionary loan loss provisions as a means for earnings management. Based on the empirical results from the Taiwan Economic Journal (TEJ) database, the study finds: (1) the two earnings-related variables, namely earnings before loan loss provisions and one-year-ahead earnings, are significantly related to discretionary loan loss provision; (2) non-performing loans is significantly related to discretionary loan loss provisions, but non-performing loans ratio and bad debts coverage ratio are not found to be significantly linked to discretionary loan loss provisions; (3) capital adequacy ratio is not significantly related to discretionary loan loss provisions. Finally, our findings indicate that bank managers may use discretionary loan loss provisions to engage in earnings management when the earnings before loan loss provisions or non-performing loans are at a high level.

Keywords: Earnings Management, Discretionary Loan Loss Provisions, Non-Performing Loans Ratio, Capital Adequacy Ratio

INTRODUCTION

Prior research generally concludes that managers engage in earnings management for many reasons and probably exercise their accounting discretion to influence reported earnings. First, they manipulate earnings because of capital market incentives, including implementing management buyouts plan, initial public offerings (IPO), seasoned equity offerings and mergers plan, to meet earnings forecasts or to smooth income, etc. Second, they implement earnings management because of contracts motivation (e.g. management compensation plans, debt agreement or job preservation). Third, they conduct earnings management due to regulation motivation, such as import regulation, industry regulation and antitrust law, etc. Regardless of whichever causes managers to manipulate earnings, the behavior of earnings management implies conflict of interest between managers, owners, and minority shareholders.

The bank managers, like managers in other industries, have incentives to “adjust” earnings and maximize bank and/or manager’s wealth. The only difference is the method used to engage in earnings management. Unlike managers in other industries, bank managers usually utilize loan loss provisions to influence earnings reported. Collins et al. (1995) examine the impact of individual bank’s changing levels of capital, earnings and taxes on decisions to engage in some capital-raising options. They expect low levels of nondiscretionary current earnings will encourage managers to realize investment security gains as well as decrease loan loss provisions and conclude a positive relation between earnings and loan loss provisions. Shrievs and Dahl (2003) also indicate bank managers intend to realize short-term security gains or losses and utilize loan loss provisions to smooth earnings.

Prior research documents that banks intend to execute transactions and manage accruals to achieve primary capital, tax, and earnings goals (Moyer, 1990; Scholes et al., 1990; Collins et al., 1995). In practice, banks’ managers may attempt to manipulate earnings and capital because of compensation plan and/or job preservation. Just like
other industries, earnings (including tax consideration) is one of the most important indicator in performance measurement for bank managers. In addition to earnings, non-performing loan ratio and capital adequacy ratio (hereafter, capital ratio) are the other two key indices to measure manager’s performance. Hence, under compensation incentive and job preservation consideration, they will endeavor to improve earnings, raise capital ratio and keep non-performing loans ratio below standard level in order to meet their goals. Once they cannot reach the target, they may use accruals, loan loss provisions, loan charge-offs, realization of gains or losses of securities or miscellaneous gains and losses to “adjust” the figures of earnings, capital ratio and non-performing loans ratio. In practice, bank managers have discretionary powers to influence the level of loan loss provisions. Collins et al. (1995) and Anandarajan et al. (2007) find that the loan loss provisions are further used to manage earnings. Once bank managers raise the level of loan loss provisions, the second tier capital and capital ratio will increase through loan charge-offs process accordingly. In prior related studies, they employed discretionary loan loss provisions to examine earnings-smoothing motivation (Kanagaretnam et al., 2003; Kanagaretnam et al., 2004), signal effect (Ahmed et al., 1999; Kanagaretnam et al., 2004; Eng and Nabar, 2007), the influence of bonus schemes on accounting decisions (McNichols and Wilson, 1988) or the motivation of capital management (Beatty et al., 1995; Ahmed et al., 1999).

In order to examine whether bank managers use discretionary loan loss provisions to adjust earnings, we first construct bad debts estimation model according to the model developed by McNichols and Wilson (1988). Then we view the regression residual as discretionary loan loss provisions estimation and use the estimated discretionary loan loss provisions as a proxy of earnings management. We conjecture (1) a significant positive relation between discretionary loan loss provisions and two earnings-related variables (i.e. earnings before loan loss provisions and one-year-ahead earnings); (2) a significant positive relation between discretionary loan loss provisions and three bad-debts-related variables (i.e. non-performing loans, non-performing loan ratio and bad debts coverage ratio). But we expect a negative relation between discretionary loan loss provisions and capital adequacy ratio.

The remainder of our paper is organized as follows. Section 2 presents prior research and hypotheses development. In Section 3, we describe sample and data selection. Section 4 presents and discusses the results. Then we conclude this paper in Section 5.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Prior Research

Watts and Zimmerman (1978) assume that individuals act to maximize their own utility. So managers may lobby on accounting standards based on their own self-interest. They elaborate on the factors, namely, taxes, regulation, management compensation plans, bookkeeping cost and political costs, which are expected to affect firm’s cash flows. Among those factors, regulation (represents government intervention) may affect a firm investment-production decisions and cause a firm to manage its reported earnings. Schipper (1989) states earnings management as “disclosure management” in the sense of a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gains. The statement of earnings management is based on a view of accounting numbers as information. It could occur in any part of the external disclosure process and could take a lot of forms.

A large number of studies investigate managers’ decision for evidence of earnings management, including choice as to accounting methods, changes in methods, and accrual strategies (Healy, 1985; Dechow and Sloan, 1991; Lewellen et al., 1996; Bernard and Skinner, 1996). Healy and Wahlen (1999) indicate that “if financial reports are to convey managers’ information on their firms’ performance, standards must permit managers to exercise judgment in financial reporting.” It means that managers have the right to determine accounting methods, accrual choices and other accounting items which may influence reported earnings. Under accounting flexibility within GAAP, managers can use their private information and knowledge about the business to select reporting methods, estimates, and disclosures that can match their benefits.

In addition to studies about accounting choices for firms in non-bank industries, several papers have examined managerial discretion in financial service firms with respect to loan loss provisions and the sale of investments (e.g., Moyer, 1990; Scholes et al., 1990; Collins et al., 1995; Beatty et al., 1995). They focus on discretionary behavior motivated by earnings, capital adequacy management, and tax management. But what do
bank managers exactly do to engage in earnings management? As literature documented, they may use accounting choices, timing of recognition of bad debts, sale of securities and / or discretionary accruals to influence reported earnings. For example, Clinch and Magliolo (1993) find bank managers may use discretion behavior including the recognition of sales to influence earnings. Shrives and Dahl (2003) find that, under the Basel Accord, Japanese banks may exploit gains on securities sales and loan loss provisions to smooth reported earnings and replenish regulatory capital. Ahmed et al. (1999) find bank managers intend to use loan loss provisions for capital management. Additionally, they find negative relation between loan loss provisions and future earnings changes.

Hypothesis Development

Several studies suggest that the signaling incentive may play an important role in bank’s loan loss provisions decision (Griffin and Wallach, 1991; Liu, 1995). In practice, in order to reflect real status of loans and also comply with regulation, it is a necessary process for banks to recognize loan loss for potential uncollectible loans. Liu and Ryan (1995) suggest that bank managers have more discretion over loss provisions for large and frequently renegotiated loans, such as foreign and commercial loans, than for small or infrequently renegotiated loans, e.g. consumer loans, and find that market reaction to loan loss provisions is positive for banks with a high portion of large and frequently renegotiated loans. Besides, Elliot et al. (1991) and Wahlen (1994) find that market reacts positively to bank’s loan loss provisions announcements and unexpected loan loss provisions, respectively. As bank managers can arbitrarily decide the timeliness of loan loss provisions during the year, they can make use of loan loss provisions to influence reported earnings. Greenawalt and Sinkey (1988) find positive relationship between loan loss provisions and operating income before provision of loan losses and indicate that bank managers tend to engage in income smoothing behavior. When actual earnings are far lower (higher) than expected earnings, managers may make use of underestimating (overestimating) the amount of potential uncollectible loans on purpose and decrease (increase) the provision of loan losses in order to smooth earnings. Collins et al. (1995) document that heterogeneity among bank’s capital, earnings, and tax strategies is linked to siz

\[ H_{1a} : \text{Ceteris paribus, banks with higher earnings before loan loss provisions report relatively larger discretionary loan loss provisions.} \]

\[ H_{1b} : \text{Ceteris paribus, banks with higher year-ahead-earnings report relatively larger discretionary loan loss provisions.} \]

According to the Basel Capital Accord, the capital ratio is calculated using the definition of regulatory capital and risk-weighted assets and used by regulators to measure bank capital adequacy. The capital ratio must be no lower than 8% (Collins et al., 1995; Basel Committee on Banking Supervision, 2004). One of the purposes for banks to manage capital is to maintain the capital ratio above the minimum of 8%. The authorities will limit the bank’s activities when its capital ratio can’t reach the minimum requirement. Accordingly, inadequate capital ratio will bring banks unnecessary controlling costs. Moyer (1990) finds that bank managers intend to select accounting
procedures to raise capital ratio to avoid additional controlling costs. Beatty et al. (1995) provide evidence of negative relation between loan loss provisions and capital ratio. Collins et al. (1995) expect that the calculation of the primary capital ratio indicates capital is augmented by increasing the loan loss provisions and/or decreasing loan charge-offs, but empirically find banks with low capital appear to decrease discretionary loan loss provisions for capital ratio consideration. As capital ratio plays an important role as an indicator to reflect the risk status of the bank, it indicates bank’s abilities to survive under current capital structure and implies the invisible risk of default. Lin and Chen (1997) refer to the study of Liu (1985) and indicate banks with inadequate capital ratio may use discretionary loan loss provisions to augment capital ratio. Although Ahmed et al. (1999) suggest that after implementing the new Basel Capital Accord, the negative relation between loan loss provisions and capital management has decreased. Chen (2002) documents that commercial banks in Taiwan still exploit loan loss provisions to influence capital and raise capital ratio. As prior studies have examined the behavior of capital management using loan loss provisions, we test whether banks with higher capital ratio report less discretionary loan loss provisions and hypothesize as follows:

\( H_1: \) Ceteris paribus, banks with higher capital ratio report relatively larger discretionary loan loss provisions.

According to the regulations in Taiwan, non-performing loans mainly refer to all loans in the portfolio more than 3 months overdue on interest or principal payments, or the loans less than 3 months overdue but banks sued debtors for default already, or took legal action to disposal collateral. Under the pressure from authorities and market, bank managers may be forced to increase the provision of loan losses. Once managers increase discretionary loan loss provisions, the other performance indicators, such as earnings, non-performing loans ratio and capital ratio, will be impacted. Therefore, when bank managers decide to increase discretionary loan loss provisions this year and then write off the uncollectible loan accordingly, it will cause decreasing in both earnings and non-performing loans ratio at the same time. When the earnings after loan loss provisions still remain positive, the loan charge-offs will reduce the amount of risk-weighted assets in portfolio, then enhance the capital ratio. On the contrary, when loan loss provisions cause a large number of losses in net income, it will cause the decrease of both capital and risk-weighted assets simultaneously and lower capital ratio if the magnitude of the reduction in capital is more than risk-weighted. Similarly, when bank managers implement loan loss provisions according to real risk status and the rules of relative regulation completely, the discretionary loan loss provisions will approach zero, and won’t affect earnings, non-performing loans ratio and capital ratio anymore.

In view of the long-term performance, bank managers may prefer to increase discretionary loan loss provisions in order to improve the quality of assets and lower the non-performing loans ratio in the future. They may sacrifice earnings this year to exchange for better performance next year, if they expect that it is unable to achieve the goals this year. But in view of the short performance, bank managers may be compelled to decrease loan loss provisions because of compensation plans and job preservation motivation. Namely, it will overstate reported earnings or understate negative net income. Therefore, the magnitude of discretionary loan loss provision may be affected by some key indicators with respect to performance measurement. We expect the amount and ratio of non-performing loans may influence managers’ will to increase or decrease discretionary loan loss provisions. Therefore, we hypothesize as follows:

\( H_{3a}: \) Ceteris paribus, banks with higher non-performing loans report relatively larger discretionary loan loss provisions.

\( H_{3b}: \) Ceteris paribus, banks with higher non-performing loans ratio report relatively larger discretionary loan loss provisions.

The level of non-performing loans ratio indicates the general quality of loans portfolio. The downward trend in non-performing loans ratio means the quality of total loans has been improving and vice versa. As non-performing loans ratio is calculated by dividing non-performing loans by total loans, high non-performing loans ratio means that a relatively large number of interests and principals will be uncollectible. Other than non-performing loans ratio, another ratio, namely bad debts coverage ratio, indicates the proportion of allowance for bad debts in potential uncollectible loans. When the bad debts coverage ratio reaches 100%, it means that the bank has already prepared for all the potential uncollectible loans. Once the potential uncollectible loans have been confirmed as “real” bad debts, banks will accordingly write off the bad debts. As the level of bad debts coverage ratio represents bank managers’ attitude to risk, banks with higher bad debts coverage ratio may remain same policies on potential uncollectible loans. Therefore, the hypothesis is established as follows:
REFERENCES


NOTES