Why Do Main Banks Manage Earnings?

: Client Firms' Perspective

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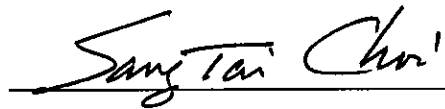
: Client Firms' Perspective

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ABSTRACT

This paper examines how client firms' financial performances influence their main banks. Specifically, this paper examines how client firms' net income, return on assets, and return on equity affect main banks' financial performances and earnings managements.

There are several reasons why financial performances of client firms are more likely to influence their main banks. First, revenues of main banks heavily rely on interest revenues from client firms. If the client firms' financial performances get worse, banks are more likely to suffer from increasing credit risks. Second, banks are known to have superior monitoring over client firms (Diamond, 1984). If client firms would not perform well, thier main banks are more likely to detect client firms' financial performances. Therefore, managers of main banks are more likely to take actions to maintain a certain level of capital ratio when financial performances of client firms do not well.

Results of this study indicate that the client firms influence their main banks. Specifically, I find a positive and significant relationship between client firms' financial performance and their main banks' financial performance. In addition, I find a negative and significant relationship between client firms' financial performance and their main banks' earnings management.

This paper contributes to banks and earnings management literature by examining how client firms' financial performances significantly influence their main banks. Most of prior literatures have documented that how main banks can significantly influence their client firms (Kang and Stulz, 2000; Baik and Choi, 2010). However, this paper provides evidence that how client firms influences to their main banks.

Key words: Main bank; bank earnings management; bank performance; client firm

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I. Introduction

Raising capital is one of the most important activity of a business (Brav, 2009). To raise capital, several methods are commonly used: issuance of bonds and stocks, or borrowing money from banks. This paper focuses on funding by bank-firm relationship. The relationship between client firms and their main banks may be one of the most important relationship in business (Ogawa and Suzuki, 2000). The relationship between client firms' main banks and client firms is critical to both parties because interest revenue is important to banks, and it is crucial for firms to have consistent capital flows (Gibson, 1995; Agarwal and Elston, 2001; Choi, 2007).

Firms and banks are examined in various perspectives (Gorton and Schmid, 2000; Kang and Stulz, 2000; Agarwal and Elston, 2001; Ongena and Smith, 2001; Choi, 2007): the reason why firms and banks transact (Ogawa et al., 2007), the influencing factors in the bank-firm relationship (Stephan et al., 2012), and the duration of the bank-firm business (Ongena and Smith, 2001). Main banks are closely related to their client firms. Specifically, main banks' financial performances heavily relied on their client firms. For example, main banks are more likely to suffer from financial losses when their client firms record net losses because interest loans to corporation of total income consists amount to the largest portion[1]. Thus, financial performances of banks are significantly influenced by financial performances of client firms.

Earnings management of main banks is expected to be influenced by their client firms, either. Since banks are known to provide effective monitoring to client firms (Diamond, 1984), managers of banks are more likely to detect clients' financial performances, as well. If client firms do not financially perform well, the credit risks are more likely to increase for main banks. Like other firms, banks pursue earnings and they should keep a certain level of profits because of strict regulation from government (Ma, 1988). Thus, managers of banks are more likely to have strong incentive to manage their earnings to maintain their important financial ratios (Betty et al., 2002).

In this study, client firms' net income (Choi, 2007), return on equity (Gorton and Schmid, 2000), and return on assets (Patatoukas, 2012) are used as proxies for firm performance to examine how client firms' performances influence their main banks' performance and earnings management. These key variables are usually used to measure firms' financial performance and profitability. The higher values of client firms' net income, return on equity, and return on assets can be interpreted as a firms' financial performance and profitability are better. In order to measure earnings management in banks, I use discretionary components of loan loss provisions. The discretionary components of loan loss

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[1] In 2011, total interest revenue is 81.8 trillion won. Total interest loan is 70.2 trillion won (85.6 percent) and interest loans to enterprise is 34.1 trillion won which is the largest portion of total income (Financial Supervisory Service, 2012).

provisions are known to be a superior proxy to measure discretionary proportion of managers' behavior in banks (Kwak et al., 2009).

The results indicate that managers of banks are more likely to detect clients' firms' financial status so that they are more likely to take actions when their client firms' report adverse financial performances. One main result of this study indicates that client firms' performances positively and significantly influence to their main banks' performance, implying that client firms' better financial performances affect main banks to have higher profitability. Moreover, client firms' return on equity have negative and statistically significant relationship with their main banks' earnings management. This result supports that firms' low financial performances can cause their main banks' earnings management. Thus, it is likely that main banks are more likely to manage their earnings when their client firms have poor financial performances.

This study has the following contributions. First, this study focuses on the effects of client firms' financial performances on their main banks. Prior studies (Weinstein and Yafeh, 1998; Gorton and Schmid, 2000; Choi, 2007; Giannetti and Ongena, 2009; Agostino et al., 2012; Stephan et al., 2012) focus on how main banks influence their client firms. However, this paper investigates how client firms influence their main banks by investigating financial performances of main banks and client firms. Second, this paper finds one of the determinants of main banks' earnings management, which is client firms' financial performances. Third, this paper investigates how financial performances of client firms influence their main banks in Korea, which is a predominantly bank-based market. Prior literatures have documented the relationship between banks and client firms in Japan (Gibson, 1995; Kim et al., 2004) and U.S. (Ahn and Choi, 2009). Prior literatures rarely document the relationship between banks and client firms in Korea, even though the rapid economic growth and influence of Korean industry is remarkable[2]. Each country has different levels of financial development and different regulations, and thus, the relationship between banks and firms are varied depending on countries. For example, the relationship between banks and firms in Japan are different from those in other countries because large client firms are related in *keiretsu* (Gibson, 1995; Kim et al, 2004). This paper is expected to provide an understanding of Korean market as a bank-based financial system.

The remainder of this paper is organized as follows. The next section provides the background information about banks in Korea, the related literature, and hypotheses. The third section describes the research models and sample selection procedures. The fourth section presents the empirical results and additional tests. Finally, the fifth section concludes the paper.

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[2] Moody's announced that Moody's Investor Service changed Korean credit rating to Aa3 form A1 in Aug 2012 (Moody's, 2012). S&P and Fitch also raise Korea's credit rating. Korea is the only country whose credit rating raise by all three (Anon, 2012).

II. Literature Review and Hypotheses

2.1 Background

Financial performances of client firms can significantly influence their main banks' financial performances. For example, bankruptcies of major corporations such as Hanbo[3] led to serious problems of its main bank, First Bank[4]. When Hanbo filed for the bankruptcy, First Bank faced financial difficulties, which lead to 1 trillion financial aids from Bank of Korea. Without the financial aid, First Bank itself would face its own bankruptcy. This event shows that financial performances of main banks are closely related to their clients' financial performance, indicating that banks would face financial difficulties when their client firms suffer from net losses. Korean government starts to recognize the importance of the effective monitoring role of banks after the Asian Financial Crisis. The government encourages Financial Supervisory Service (FSS) pay special attention to banking industry. FSS provides strict regulation regarding financial health of banks, such as maintaining higher BIS ratios.[5]

2.2 Relationship between Banks and Firms

Main banks can negatively influence their client firms. Agarwal and Elston (2001) find that banks are more likely to encourage client firms to take less risky projects so that client firms are more likely to lose the opportunity to grow. Weinstein and Yafeh (1998) find close bank-firm relationship increases the capability of client firms to raise funds, but the relationship does not lead to better profitability or growth. In addition, they find that costs of capital would be higher for firms that have close relationship with banks than firms without relationship with banks. Kang and Stulz (2000) document that firms that are heavily relied on banks are exposed to more risks than firms that do not have any bank relationship during the Asian Financial Crisis. Choi (2002) finds that firms that have a relationship with financially-distressed banks are more likely to engage in earnings management by using discretionary accruals. Agostino et al. (2012) also find that small or medium sized firms that

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[3] The bankrupcy of Hanbo Steel caused the bankrupcy of the Hanbo Corporation. Hanbo Corporation was 14th biggest business group of the Korean industry before the bankruptcy. It went broke in Jan. 23th, 1997 (Maeil Business Newspaper, 1997).

[4] First bank is now called Standard Chartered Bank. It is sold off in 2005.

[5] Five banks (Daedong Bank, Dongnam bank, Donghwa Bank, Kyungki Bank, and Chungchong Bank) out of thirty three were below the financial standard that were provided by FSS, were ordered to be acquired to other banks by P&A (Yu, 1999).

heavily rely on main banks and do not have multiple bank relationships, are more likely to face higher default risks than those firms that do not have relationship with main banks.

On the other hand, some prior literatures have documented the benefits of having main banks. Sheard (1989) finds that main banks provide an important monitoring because banks substitutes for the missing bond-rating agencies or corporate raiders for corporate control and monitoring services. According to Bae et al. (2002), firms that have main banks would be benefited from the relationship because main banks are more likely to provide effective monitoring. Using German firms, Gorton and Schmid (2000) provide evidence that concentrated bank control rights can improve client firms' financial performances, such as market-to-book value. In addition, firms with a strong relationship with main banks are more likely to have easy access to capital because securing a loan is easier than issuing bonds or shares (Agarwal and Elston, 2001). By examining small firms, Berger and Udell (1995) find that the relationship between client firms and main banks is important because monitoring provided by main banks is effective to solve the information asymmetry of client firms. Finally, Choi (2007) provides evidence that more intimate relationship with banks leads to more reliable information on explaining firm value[6]. Overall, prior literature documents that there is a significant relationship between main banks and their client firms in terms of financial performances.

2.3 Banks' Financial Performance

Various factors can significantly influence financial performances of banks. Rasiah (2010) finds that non-financial items, regulation, competition, concentration, market share, and ownership

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[6] There are additional researches regarding client firms and researches about bank-firm relationship. Fok et al. (2004) add mixed research results by examining domestic banks and foreign banks. They find domestic banks are negatively related to firm performance, but foreign banks are positively related to firm performance. Shen and Huang (2003) use 46 countries' data and study relationship between firms' and banks' performance. They find that the relationship between firms and banks can be strengthened when banks are more concentrated. Baik and Choi (2010) examine that banks and institutional investors significantly affect the firms' financial reporting behavior which is related to manage earnings. Client firms are likely to exposed to their financial information by their main banks and it reduces information asymmetry. Therefore, it is difficult for firm managers to manage earnings. Firm performances like innovation are also related to bank relationship. In Italian firms, banking development affects the high-tech (Giannetti, 2012) and small sized firms' process innovation because the firms are more dependent upon external capital (Benfratello et al., 2008). The number of banks that deals also influence to the firm. Degryse and Ongena (2001) study that a single bank relationship is advantageous to the firms' profitability than multiple relationships. Firms' sales, assets, and use of financial loans can grow and capital expense can be reduced because of foreign banks' support (Giannetti and Ongena, 2009). This paper does not consider the foreign capital but it is clear that banks are supportive of the growth of a firm. Above researches do not explain clear bank-firm relationship in financial performance perspective, but they support there are close relationship between two parties.

structures can significantly affect financial performances of banks. McAnally et al. (2010) find a positive relationship between profitability and income diversification, and a negative relationship between profitability and size. Goddard et al. (2004) find that capital-asset ratio or liquidity is related to lower profitability. Dietrich and Wanzenried (2011) find that bank profitability is positively related to operational efficiency and the growth ratio, and is negatively related to funding costs. Bank profitability is also significantly influenced by macroeconomic conditions, such as inflation and economic growth rate (Naceur and Omran, 2011).

Historical events and current statistics also show that there is a close relationship between client firms and their main bank in Korea. In 2011, the report from the Korean National Assembly Research Service indicates that over 80 percent of banks' profit comes from interest revenue, and 40 percent of interest revenue comes from interest on loans to corporations (Financial Supervisory Service, 2012)[7].

If firms have better financial performances, they can pursue more profits and invest more. Then, when client firms expand their businesses, they need capital to invest and try to raise funds from banks (Schiantarelli, 1996). This leads to more opportunity to banks to increase the level of interest income or have more stable revenue. On the contrary, if client firms' financial performances worsen, their ability to repay the debt is reduced, which lead to increasing credit risks of their main banks.

Given that financial statement configuration items are related to banks' financial performance (Athanasoglou et al., 2008), income accounts also can explain the banks' financial performances. Therefore, client firms' financial performances provide an opportunity to their main banks because firms' profits are related to banks' income account. From this perspective, the first hypothesis is presented as follows.

H_1: Client firms' financial performances influence their main banks' performances.

2.4 Banks' Earnings Management

Managers do not want to report high deviation of earnings so that managers are more likely to engage in earnings management to smooth income (Healy and Wahlen, 1999). Even managers of banks also are likely to engage in earnings management (Ma, 1988; Beatty et al., 2002; Shen and Chih, 2005; Agarwal et al., 2007; Kwak et al., 2009) to smooth income.

Most firms employ discretionary accruals to manage earnings (Jones 1991). However, banks are

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[7] In 2011, the amount of interest loan to corporation for all banks in Korea was 34 trillion won. Between 2000 and 2011, over 80 percent of banks' profit is generated from interest revenue of corporation, exception for 2007. In 2007, 74 percent of profits is generated by client firms' interest revenues (Financial Supervisory Service, 2012).

less likely to use discretionary accruals to manage earnings. Banks rather use special accounts to manage earnings. For example, Ma (1988) and Kanagaretnam et al. (2004) find that managers of banks use loan loss provisions to manage earnings. Examining Japanese bank, Kwak et al. (2009) argue that only discretionary components of loan loss provisions[8] are more effective in representing earnings management by banks.

Several determinants significantly influence earnings management in banks. First, regulations and business cycles can be important determinants in earnings management in banks. For example, Kim and Kross (1998) find that mandatory disclosure requirements can significantly reduce earnings management in banks. Second, economic growth rates can significantly influence earnings management in banks. Examining Japanese banks, Agarwal et al. (2007) find different patterns of earnings management that are dependent on economic growth rates. Third, types of bank can significantly influence earnings management of banks. For example, Beatty et al. (2002) find that managers of large and public banks are more likely to engage in earnings management than managers of small and private firms do because large public banks receive higher levels of market attention than small and private banks.

This study tests one of the determinants of earnings management in banks by investigating how client firms' financial performances influence their main banks' earnings management. Majority of income of banks consists of interest incomes from corporations. As client firms suffer from financial distress, it can be predicted that managers of banks are more likely to have strong incentive to manage earnings. For example, Financial Supervisory Services, which is the most authoritative financial regulatory agency in Korea, recently announced that it decided to give more power to main banks (Maeil Business Newspaper, 2012). This implies that banks are more likely to exercise more superior monitoring over client firms' financial performances, and thus, managers of banks have superior information at advantages compared with other financial institutions. Banks are required to maintain certain levels of financial ratios that are predetermined by BIS (Banks for International Settlement), and ratios such as return on equity (ROE) and return on assets (ROA). If those financial ratios do not meet the requirements, banks are forced to close down.

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[8] Discretionary component of loan loss provisions is calculated by the residual of the following equation (Kwak et al., 2009).

LLP $i,t = \alpha_0 + \beta_1 \text{LNSIZE } i,t + \beta_2 \text{CHNPL } i,t + \beta_3 \text{LLRER } i,t + \epsilon i,t$

where,

LLP = loan loss provisions scaled by loans from prior year;

LNSIZE = natural log of total assets;

CHNPL = change in the value of non-performing loans scaled by loans from prior year; and

LLRERit = loan loss reserve scaled by loans from prior loans.

Thus, managers of main banks are more likely to take actions when their client firms do not financially perform well. If client firms announce low profit or losses, their main banks anticipate that their performances will be worsened. As the interest revenue from firms takes an important part in banks' total revenue, there is a high probability that firms' losses lead to loss of their main banks. Therefore, managers of banks are more likely to engage in earnings management to maintain their important financial ratios. The following hypothesis is stated based on the arguments from above.

H_2: *Client firms' difficulties influence their main banks to manage their earnings.*

III. Research Design

3.1 Sample and Data Collection

The sample consists of firms listed on the Korea Composite Stock Price Index (KOSPI: comparable to NYSE in the U.S.) and Korea Securities Dealers Automated Quotation (KOSDAQ: comparable to NASDAQ in the U.S.) between 2000 and 2008. The variables from client firms are obtained from the electronic databases, such as Total Solution 2000 (TS 2000) and Financial Guide (FN Guide). I have hand-collected information on main banks' financial information from Annual Bank Statistics provided by the Financial Supervisory Services.

The final sample should meet the following criteria. First, firms must be listed in the stock market. Second, main banks' information must be available. Third, main banks should not be special banks[9]. Fourth, firms are non-financial institutions and non-utility companies. Finally, the end of the fiscal year should be December. Using these criteria, 9,018 observations are obtained over the nine-year period from 2000 to 2008 available.

3.2 Research Methodology

3.2.1 Financial Performance of Firms and Banks' Profitability

The first hypothesis tests how firms' financial performances affect main banks' financial performances. The hypothesis is tested in the following estimation model:

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[9] Special banks such are excluded from sample because their regulations and ownership are different from regular banks. Special banks: NongHyup (NH), Korea Development Bank (KDB), SuHyup, Industrial Bank of Korea (IBK), and The Export-Import Bank of Korea

$$ROE = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 BFROA + \alpha_4 ASSET + \alpha_5 LLP + \alpha_6 NONI + \alpha_7 EQ$$
$$+ \alpha_8 LOAN + \alpha_9 CPI + \alpha_{10} \sum year + \varepsilon \qquad (1)$$

Where:

ROE = net income of main bank / main banks' average outstanding of equity capital;

$BFNI^{[10]}$ = log of client firms' net income;

BFROE = client firms' net income / client firms' equity;

BFROA = client firms' earnings before income and tax / client firms' assets;

$ASSET^{[11]}$ = log of main banks' assets;

LLP = loan loss provision of main bank / total loans of main bank;

NONI = noninterest income of main bank / end assets of main bank;

EQ = end of equity of main bank / end of assets of main bank;

LOAN = total loans of main bank / end assets of main bank;

CPI = consumer price index; and

ε = error term.

In equation 1, firms' net income (BFNI), firms' return on equity (BFROE), and firms' return on assets (BFROA) are key variables. To support the hypothesis 1, the coefficients of key variables are expected to be positive and significant. The natural log of main banks' assets (ASSET) is used to control banks' size. According to Sufian and Habibullah (2010), the expected coefficient on ASSET is positive, implying that larger banks are more likely to improve the financial performances. On the other hand, there is no consistent effect of bank assets that can significantly influence financial performances (Naceur and Omran, 2011). Thus, there is no predicted sign on ASSET.

Non-interest income (NONI) is an important source of bank revenues. According to Sufian and Habibullah (2010) and Liu and Wilson (2010), the expected coefficient on NONI is positive. Equity (EQ) is included to control the level of capitalization. According to Sufian and Habibullah (2010), Naceur and Omran (2011), and Liu and Wilson (2010), higher equity leads to higher bank profits. Thus, the expected coefficient on EQ is positive. The magnitude of loans (LOAN) is included to control credit risks. According to Sufian and Habibullah (2010) and Liu and Wilson (2010), the expected coefficient on LOAN is negative. However, Naceur and Omran (2011) find that bank loan is positively related to bank profitability, implying that the expected coefficient on LOAN is positive.

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[10] The natural log values are taken because the variable is highly skewed.

[11] The natural log values are taken because the variable is highly skewed.

3.2.2 Calculation of Loan Loss Provision

In order to estimate banks' earnings management, discretionary loan loss provision is measured. Equation (2) presents the traditional model of discretionary loan loss provision. Discretionary loan loss provision is the *residual* of the regression.

$$LLP = \alpha_0 + \alpha_1 ASSET + \alpha_2 CHNPL + \alpha_3 WO + \varepsilon \qquad (2)$$

Where:

CHNPL = change in the value of nonperforming loans deflated by beginning loans;

WO = loan loss reserve / end asset.

Loan loss provisions (LLP) is consisted of a nondiscretionary component and discretionary component. The discretionary component of LLP is related to loan portfolio characteristics such as the size, change of non-performing loans, and loan loss reserves (Kwak et al., 2009). Discretionary component of LLP is more superior proxy to measure earnings management in banks than nondiscretionary component of LLP because it reflects more of discretionary behavior of managers (Kwak et al., 2009). The expected coefficient on ASSET is negative based on Kwak et al. (2009). The expected coefficients on CHNPL and WO are positive (Kwal et al., 2009; Kanagaretnam et al., 2004).

3.2.3 Firms' Financial Performance and Its Financial Performance

The second hypothesis examines how financial performances of firms can significantly influence their main banks' financial performances. The hypothesis is tested in the following estimation model:

$$DLLP = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 ASSET + \alpha_4 LLP + \alpha_5 NONI + \alpha_6 EQ + \alpha_7 LOAN$$
$$+ \alpha_8 ROA + \alpha_9 WO + \alpha_{10} \sum year + \varepsilon \qquad (3)$$

Where:

DLLP = the residual from Equation (2) where the dependent variable is loan loss provision and independent variables are economic determinates of for the loan loss provision;

ROA^{12} = net income/ (bank total assets+ total assets to trust+ total assets to merchant banking-

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[12] In the ROA equation, Bank total assets is calculated by bank account average outstanding of assets, Total assets to trust is

inter-transaction)

In equation 3, client firms' net income (BFNI) and return on equity (BFROE) are key variables. To support the hypothesis 2, the coefficients of key variables are expected to be negative and significant, implying that banks are more likely to be motivated to manage earnings when their client firms predict lower profit.

The natural log of bank asset (ASSET) is used to control bank size. According to Agarwal et al. (2007), Kwak et al. (2009), and Kanagaretnam et al. (2004), the expected coefficient on ASSET is positive, implying that bigger banks have more pressure to remain profitable due to various types of interest groups. The coefficient on loan loss provision (LLP) is expected to be positive because there is a positive and significant relationship between LLP and earnings management (Kwak et al., 2009). The amounts of loans (LOAN) are added in the equation to control credit risk, indicating that more loans imply higher credit risks (Moon, 2004). The expected coefficient on LOAN is positive and significant. The loan loss reserve (WO) is included to control loan loss provisions. According to Kim and Kross (1998), the coefficient on WO is expected to be negative. Return on assets (ROA) is a proxy for profitability. When a bank retains higher profitability, it does not have strong incentive to manage earnings. Thus, the expected coefficient on ROA is negative and statistically significant. Finally, year dummy variable is included to control possible year-effects.

IV. Empirical Results

4.1 Descriptive Statistics

Table 1 presents the basic descriptive statistics. All continuous variables at the top and bottom 1 percent are winsorized to avoid the possible influences of outliers. The mean and median values of ROE are 0.124 and 0.158, respectively. The mean value of DLLP is 0.000[13]. The mean (median) value

calculated by dividend on commitments average outstanding of assets to trust account - profit and loss to debit, Total assets to Merchant Banking is calculated by Merchant Banking account average outstanding of assets, and Inter transaction value is calculated by dividend on commitments average outstanding of assets to trust account (bank account credit + credit card purchase of debenture + bank account debit) + Merchant bank account (bank account credit + bank account debit). The calculation is based on the formula from the annual report about bank statistics.

[13] Assumptions about the random error.

1. For any given set of values of x_1, x_2,···, x_k, ε has a normal probability distribution with mean equals to 0 and variance equal to σ^2.

2. The random errors are independent (in probabilistic sense).

of BFNI, BFROE, and BFROA are 21.493 (21.702), 0.401 (0.308), and 0.205 (0.164), respectively. The mean value LLP is 0.016, indicating that on average, 1.6 percent of loans are more likely to be loan loss provisions. The mean value of LOAN is 0.524, implying that on average, 52 percent of asset consists of liability.

(Insert Table 1 Here)

4.2 Pearson Correlation

Table 2 presents the Pearson correlation matrix. ROE is positively correlated with BFNI. This table also indicates that DLLP is negatively and significantly correlated with BFROA. DLLP is positively correlated with LLP and negatively correlated with WO which is consistent to Kim and Kross (1998). Moreover, LLP is negatively correlated with ASSET, and this finding is consistent with Leventis et al. (2011). LOAN is positively correlated with ASSET, which is consistent with Kwak et al. (2009). EQ is negatively correlated with LLP, which is consistent with Sufian and Habibullah (2010).

(Insert Table 2 Here)

4.3 Multiple Regression Results

4.3.1 Client Firms' Performances and their Main Banks' Performances

Table 3 presents the results from the main estimation model, Equation (1). The coefficient on key variable, BFNI, is positive and statistically significant at less than the 5% level (*p-value* = 0.041). This result implies that firms' financial performances significantly affect their main banks' performance, which supports the first hypothesis. Specifically, it supports that when firms achieve higher financial performance, their main banks also earn more profits.

The coefficients on control variables are consistent with prior literature. The coefficient on ASSET is positive, which supports Sufian and Habibullah (2010). The coefficient on NONI is positive and statistically significant, which supports Sufian and Habibullah (2010) and Liu and Wilson (2010). The coefficient on EQ is positive and statistically significant, implying that higher capital levels are related to higher profitability. This result is supported by Sufian and Habibullah (2010), Naceur and Omran (2011), and Liu and Wilson (2010). The coefficient on LOAN is positive and significant, supporting

the findings by Naceur and Omran (2011). Overall, the results in Table 3 support for H_1, which firms' financial performances significantly influence their main banks' financial performances.

(Insert Table 3 Here)

4.3.2 Loan Loss Provision

Table 4 presents the results from the estimation model, Equation (2). The coefficient on ASSET is negative and statistically significant at less than the 1% level (*p-value* = 0.007). The coefficient on CHNPL is positive and significant, which supports Kwak al. (2009) and Kanagaretnam et al. (2004). The coefficient on WO is positive and significant, which is supported by Kwak et al. (2009).

(Insert Table 4 Here)

4.3.3 Client Firms' Performances and their Main Banks' Earnings Management

Table 5 presents the results from the main estimation model, Equation (3). The coefficient on BFROE is negative and statistically significant at less than the 1% level (*p-value* = 0.003), which supports the second hypothesis. This result implies that main banks engage in earnings management when client firms' financial performances worsen. It also supports the idea that superior bank monitoring (Ahn and Choi, 2009) that banks are more likely to engage in earnings management when client firms record bad financial performances. The results can be interpreted that banks, as other firms, seek profits and banks try to smooth their profit level. Therefore, banks manage their earnings when they predict lower financial performance because of client firms' worse financial status.

The coefficients on control variables are consistent with those provided in prior literature. The coefficient on ASSET is positive and significant, which is consistent with Agarwal et al. (2007), Kwak et al. (2009), and Kanagaretnam et al. (2004). This result indicates that bigger banks are more pressured to maintain a certain level of profitability so they are more likely to engage in earnings management. The coefficient on LLP is positive and significant and the coefficient on WO is negative and statistically significant, which is consistent with Kim and Kross (1998). The coefficient on ROA is negative and significant, which supports that banks' earnings management may be tried if banks have low financial performance.

(Insert Table 5 Here)

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4.4 Additional Analysis

4.4.1 Regional Banks versus Local Banks

In this section, total samples are separated into two categories based on types of banks: regional banks and local banks. The effectiveness of monitoring, size, purposes, and regulations are varied depending on bank type. For example, local banks play an important role in supporting local clients. Their sizes are smaller compared with those of regional banks, and they can operate only in certain locations. In addition, more than 70 percent of total loans of local banks must be lent to local small and medium sized companies (Park, 2011).

These different characteristics can create different contracts and different interests (Park, 2011), which lead to certain unobserved characteristics might influence the results reported in the main test. Thus, Equation (1) and Equation (3) are examined for regional banks and local banks, respectively. The results are presented in Table 6A and 6B for regional banks.

Results are constant with main results. The coefficient on BFNI is positive and significant in Table 6A, implying that client firms' financial performances significantly influence financial performance of regional main banks. This supports the first hypothesis. The coefficient on BFROE is negative and significant in Table 6B, implying that as firms' financial performance improves, their regional main banks are less likely to engage in earnings management. This supports the second hypothesis.

On the other hands, results for local banks are different from regional banks. Both the coefficients on BFNI and BFROA in Table 7A are positive and significant, implying that client firms' financial performances significantly influence financial performances of local main banks. However, the coefficient on BFROE is negative and significant, which is different from the main results. The coefficient on BFNI is positive and statistically significant in Table 7B, implying that earnings management of banks increases as the client firms' net incomes increase. Results are different from that of the main analysis.

The results may be explained by the fact that the majority of the sample are regional banks and not local banks. The local banks' sample results may have little influence to the main results. Moreover, local banks are different from regional banks in terms of asset portfolio and other characteristics (Park, 2011). It can be considered that the local banks' distinct characteristics may lead different statistical results. The specific factors that led to this observation are left for future studies.

(Insert Table 6A, 6B, 7A and 7B Here)

4.4.2 KOSPI listed firms versus KOSDAQ listed firms

In this section, the sample is divided into different types of client firms: KOSPI and KOSDAQ. KOSPI and KOSDAQ firms show significantly different characteristics. For example, KOSPI tends to be more complex than KOSDAQ. In addition, it is less risky than KOSDAQ. It has more business unit and higher firm values than that in KOSDAQ (Park and Park, 2012). On average, KOSPI firms have more analysts following, and thus, receive more market attention than KOSDAQ firms get. In addition, KOSDAQ firms are more likely to rely on banks in raising capital.

These different characteristics can create different loan contracts and different obligations, which lead to certain unobserved characteristics that may influence the results reported in the main test (Park and Park, 2012). Thus, Equation (1) and Equation (3) are examined for KOSPI and KOSDAQ, respectively. The results for KOSPI are presented in Table 8A and 8B. The results for KOSDAQ are presented in 8A and 8B.

Table 8A presents results for the relationship between KOSPI firms' financial performances and their main banks' financial performances. The coefficient on BFNI is positive and significant in Table 8A, which supports H_1. However, the coefficient on BFNI is positive and significant in Table 8B (*p-value*= 0.080), implying that as KOSPI firms' net income increase their main banks' earnings management increases.

The key variables in Table 9A are not statistically significant. This result implies that KOSDAQ firms' financial performances are not significantly concerned about their main banks' financial performances, and thus the main banks' financial performances are not significantly influenced by financial performances of KOSDAQ firms. However, the coefficient on BFROE is negative and significant in Table 9B, implying that as KOSDAQ firms' financial performances improve, their main banks' earnings management decreases.

(Insert Table 8A, 8B, 9A and 9B Here)

4.4.3 Averaged Client Firms' performance value and their Main Bank

In this section, total firm samples are grouped on the basis of their transacting main banks and observation year. There are 13 main banks, and observation period is 9 years, so 117 firm groups are made. In the group, each firms' measured performance values are averaged. Then, one main bank value matches one firm value at each year. Also third equation is modified; BFROA variable is added for key variables and different earnings management proxy is used.

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Table 10A presents results for the relationship between firms' financial performances and their main banks' financial performances. The coefficient on BFNI and BFROA is positive and significant in table 10A, which supports H_1. The results are consistent with the main result.

In additional test, banks' earnings management is measured by loan loss provisions which also usually used in prior studies (Kim and Kross, 1998; Agarwal et al., 2007). In Table 10B, the coefficient on BFNI is negative and significant, which supports the second hypothesis. The coefficients on control variables are slightly different from main results. The coefficients on EQ and LOAN are not significant. Also coefficient on WO is positive. However, with loan loss provision as the dependent variable for earnings management proxy, the results imply main banks manage their earnings when client firms have low net income.

(Insert Table 10A and 10B Here)

V. Conclusions

Raising capital is important for firms (Brav, 2009), so the relationship between banks and firms is extremely important. Prior studies document that banks are more likely to provide effective monitoring so that firms are less likely to engage in earnings management (Ahn and Choi 2009). In addition, banks affect the client firms' financial performances (Kang and Stulz, 2000).

In this paper, I examine how client firms influence their main banks. Specifically, this paper examines how client firms' financial performances influence their main banks' financial performances and earnings management.

The findings of this study suggest that financial performances of client firms can significantly influence their main banks' financial performances and earnings management. Specifically, results indicate that client firms' financial performances are positively related to their main banks' profitability and negatively related to their main banks' earnings management. In addition, this paper demonstrates how client firms' financial performances influence main banks' performances and earnings management depend on types of main banks (regional banks versus local banks) and firms (KOSPI or KOSDAQ).

This study has both academic and practical implications. First, unlike prior studies that mainly focus on the effect of banks on client firms (Kang and Stulz, 2000; Ahn and Choi 2009), this paper investigates how client firms influence their main banks. Second, results suggest that bank regulators should pay attention to not only financial conditions of banks but also financial conditions of client firms because they are significantly influenced each other. Third, the results of this study indicate that information users who are interested in banks should carefully evaluate not only banks but also the major client firms.

Table 1

Descriptive statistics of variables

	No. Observations	Mean	Median	Standard Deviation	Min	Max
ROE	9,018	0.124	0.158	0.185	-1.651	0.440
DLLP	9,018	0.000	-0.066	1.002	-4.268	4.999
BFNI	9,018	21.493	21.702	2.254	18.462	27.567
BFROE	9,018	0.401	0.308	0.506	-0.356	3.239
BFROA	9,018	0.205	0.164	0.191	-0.056	1.009
ASSET	9,018	32.188	32.151	0.666	30.029	33.151
LLP	9,018	0.016	0.009	0.024	0.001	0.113
NONI	9,018	0.006	0.006	0.004	-0.017	0.019
EQ	9,018	0.050	0.051	0.013	0.027	0.079
LOAN	9,018	0.524	0.532	0.064	0.357	0.660
CPI	9,018	3.174	2.800	0.822	2.200	4.700
ROA	9,018	0.759	0.960	0.977	-4.360	3.050
WO	9,018	0.008	0.003	0.010	0.001	0.038

Note : variable definition

ROE = net income of main bank / main banks' average outstanding of equity capital ;

DLLP = discretionary component of the loan loss provision, estimated as the residual of regression*;

BFNI = log of client firms' net income;

BFROE = client firms' net income / client firms' equity;

BFROA = client firms' earnings before income and tax / client firms' assets;

ASSET = log of main banks' assets;

LLP = loan loss provision of main bank / total loans of main banks;

NONI = noninterest income of main bank / end assets of main bank;

EQ = end of equity of main bank / end of assets of main bank;

LOAN = total loans of main bank / end assets of main bank;

CPI = consumer price index;

ROA = (Net income/Bank total assets+ Total assets to trust+ Total assets to Merchant Banking- Inter transaction);

WO = loan loss reserve / end asset.

* $LLP = \alpha_0 + \alpha_1 ASSET + \alpha_2 CHNPL + \alpha_3 WO + \varepsilon$

CHNPL = change in the value of nonperforming loans deflated by beginning loans;

Table 2

Pearson's Correlation Matrix

	ROE	DLLP	BFNI	BFROE	BFROA	ASSET	LLP	NONI	EQ	LOAN	CPI	ROA	WO
DLLP	-0.231***												
BFNI	0.027**	0.009											
BFROE	-0.018*	-0.013	0.174***										
BFROA	0.019*	-0.021**	0.273***	0.770***									
ASSET	0.099***	-0.000	-0.005	-0.005	0.040***								
LLP	-0.565***	0.228***	-0.036***	0.030***	-0.023**	-0.209***							
NONI	0.018*	-0.009	-0.024**	0.020*	-0.009	-0.142***	0.606***						
EQ	0.411***	-0.056***	0.049***	-0.038***	0.004	0.314***	-0.521***	-0.193***					
LOAN	0.172***	-0.049***	0.025**	-0.010	0.023**	0.560***	-0.379***	-0.428***	0.332***				
CPI	0.110***	-0.000	-0.052***	0.001	-0.008	0.093***	0.096***	-0.020*	-0.190***	-0.054***			
ROA	0.962***	-0.245***	0.035***	-0.024**	0.017	0.135***	-0.640***	-0.044***	0.565***	0.195***	0.014		
WO	-0.446***	-0.000	-0.036***	0.023**	-0.011	-0.278***	0.784***	0.626***	-0.446***	-0.400***	0.037***	-0.496***	

Notes:

Refer to table 1 for definition variables.

Table 2 reports Pearson and Spearman correlations among variables used in the empirical analysis below the diagonal, respectively. All variables are defined in section 3. Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 3

Regression results of bank performance and client firms' performance

$$ROE = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 BFROA + \alpha_4 ASSET + \alpha_5 LLP + \alpha_6 NONI + \alpha_7 EQ$$
$$+ \alpha_8 LOAN + \alpha_9 CPI + \alpha_{10} \sum year + \varepsilon$$

Variable	Predicted Sign	Parameter Estimate	t Value	Pr > |t|
Intercept		0.041	0.630	0.529
BFNI	**+**	**0.001****	**2.040**	**0.041**
BFROE	+	-0.003	-0.790	0.430
BFROA	+	0.000	0.000	0.999
ASSET	+/−	-0.018***	-7.950	<.000
LLP	?	-6.349***	-84.360	<.000
NONI	+	26.696***	56.120	<.000
EQ	+	2.285***	15.520	<.000
LOAN	+/−	0.384***	15.900	<.000
CPI	?	0.056***	28.620	<.000
No. of observations		9,018		
Adj R^2		0.690		

Notes:

Refer to table 1 for definition variables.

Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 4

Regression results of LLP

$$LLP = \alpha_0 + \alpha_1 ASSET + \alpha_2 CHNPL + \alpha_3 WO + \varepsilon$$

Variable	Predicted Sign	Parameter Estimate	t Value	Pr > |t|
Intercept		0.022***	2.970	0.003
ASSET	–	-0.001***	-2.720	0.007
CHNPL	+	0.406***	29.110	<.000
WO	+	1.832***	109.240	<.000
No. of observations		9,018		
Adj R^2		0.648		

Notes:

Refer to table 1 for definition variables.

Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 5

Regression results of bank earnings management and client firms' performance

$$DLLP = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 ASSET + \alpha_4 LLP + \alpha_5 NONI + \alpha_6 EQ + \alpha_7 LOAN + \alpha_8 ROA + \alpha_9 WO + \alpha_{10}\sum year + \varepsilon$$

Variable	Predicted Sign	Parameter Estimate	t Value	Pr > |t|
Intercept		-2.656***	-4.810	<.000
BFNI	–	0.005	1.240	0.213
BFROE	**–**	**-0.056*****	**-2.940**	**0.003**
ASSET	+	0.084***	4.560	<.000
LLP	+	25.760***	28.240	<.000
NONI	?	-15.309***	-3.390	0.001
EQ	?	20.112***	14.710	<.000
LOAN	+	-2.003***	-9.600	<.000
ROA	?	-0.325***	-17.080	<.000
WO	–	-56.889***	-30.270	<.000
No. of observations		9,018		
Adj R^2		0.208		

Notes:

Refer to table 1 for definition variables.

Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 6A

Regional bank performance

$$ROE = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 BFROA + \alpha_4 ASSET + \alpha_5 LLP$$
$$+ \alpha_6 NONI + \alpha_7 EQ + \alpha_8 LOAN + \alpha_9 CPI + \alpha_{10} \sum year + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	-1.146^{***}	-8.820	<.000
BFNI	**0.001^{**}**	**2.090**	**0.037**
BFROE	0.001	0.180	0.859
BFROA	-0.006	-0.650	0.516
ASSET	0.024^{***}	5.310	<.000
LLP	-6.133^{***}	-81.850	<.000
NONI	24.653^{***}	49.780	<.000
EQ	2.577^{***}	17.590	<.000
LOAN	0.092^{**}	2.480	0.013
CPI	0.048^{***}	22.180	<.000
No. of observations		8,499	
Adj R^2		0.707	

Notes:
Refer to table 1 for definition variables.
Values with *** are statistically significant at the 0.01 level, values with ** are statistically
significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 6B

Regional bank earnings management

$$DLLP = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 ASSET + \alpha_4 LLP + \alpha_5 NONI + \alpha_6 EQ$$
$$+ \alpha_7 LOAN + \alpha_8 ROA + \alpha_9 WO + \alpha_{10} \sum year + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	-10.896^{***}	-10.800	<.000
BFNI	0.003	0.790	0.431
BFROE	**-0.057^{***}**	**-3.220**	**0.001**
ASSET	0.355^{***}	10.320	<.000
LLP	23.595^{***}	27.310	<.000
NONI	-0.458	-0.100	0.918
EQ	21.221^{***}	16.100	<.000
LOAN	-3.149^{***}	-10.870	<.000
ROA	-0.341^{***}	-18.460	<.000
WO	-53.958^{***}	-30.350	<.000
No. of observations		8,499	
Adj R^2		0. 225	

Notes:
Refer to table 1 for definition variables.
Values with *** are statistically significant at the 0.01 level, values with ** are statistically
significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 7A

Local bank performance

$$ROE = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 BFROA + \alpha_4 ASSET + \alpha_5 LLP$$
$$+ \alpha_6 NONI + \alpha_7 EQ + \alpha_8 LOAN + \alpha_9 CPI + \alpha_{10} \sum year + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	0.377	0.350	0.724
BFNI	**0.008****	**2.120**	**0.035**
BFROE	**-0.070*****	**-3.300**	**0.001**
BFROA	**0.179****	**2.440**	**0.015**
ASSET	-0.025	-0.710	0.477
LLP	-7.103***	-12.800	<.000
NONI	49.322***	21.140	<.000
EQ	3.363**	2.030	0.043
LOAN	-0.120	-0.750	0.453
CPI	0.038***	3.550	0.000
No. of observations		519	
Adj R^2		0.622	

Notes:

Refer to table 1 for definition variables.

Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 7B

Local bank earnings management

$$DLLP = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 ASSET + \alpha_4 LLP + \alpha_5 NONI + \alpha_6 EQ$$
$$+ \alpha_7 LOAN + \alpha_8 ROA + \alpha_9 WO + \alpha_{10} \sum year + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	2.291	0.310	0.753
BFNI	**0.057****	**2.280**	**0.023**
BFROE	-0.063	-0.600	0.547
ASSET	-0.007	-0.030	0.978
LLP	29.353***	4.950	<.000
NONI	30.183	1.570	0.117
EQ	-2.021	-0.180	0.860
LOAN	-7.412***	-6.650	<.000
ROA	-0.430***	-4.250	<.000
WO	-35.643**	-1.980	0.048
No. of observations		519	
Adj R^2		0. 741	

Notes:

Refer to table 1 for definition variables.

Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 8A

KOSPI Firm and bank performance

$$ROE = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 BFROA + \alpha_4 ASSET + \alpha_5 LLP$$
$$+ \alpha_6 NONI + \alpha_7 EQ + \alpha_8 LOAN + \alpha_9 CPI + \alpha_{10}\sum year + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	-0.227**	-2.420	0.016
BFNI	**0.001***	**1.840**	**0.066**
BFROE	-0.005	-0.920	0.356
BFROA	0.010	0.640	0.521
ASSET	-0.012***	-3.760	0.000
LLP	-6.635***	-58.840	<.000
NONI	29.784***	40.510	<.000
EQ	2.293***	9.820	<.000
LOAN	0.457***	12.090	<.000
CPI	0.065***	20.680	<.000
No. of observations		4,093	
Adj R^2		0.720	

Notes:
Refer to table 1 for definition variables.
Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 8B

KOSPI Firm and bank earnings management

$$DLLP = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 ASSET + \alpha_4 LLP + \alpha_5 NONI + \alpha_6 EQ$$
$$+ \alpha_7 LOAN + \alpha_8 ROA + \alpha_9 WO + \alpha_{10}\sum year + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	-0.441	-0.590	0.556
BFNI	**0.010***	**1.750**	**0.080**
BFROE	-0.036	-1.260	0.209
ASSET	0.019	0.750	0.454
LLP	26.948***	21.020	<.000
NONI	-10.440	-1.600	0.111
EQ	16.747***	8.410	<.000
LOAN	-2.107***	-6.930	<.000
ROA	-0.273***	-10.500	<.000
WO	-65.819***	-23.390	<.000
No. of observations		4,093	
Adj R^2		0.233	

Notes:
Refer to table 1 for definition variables.
Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 9A

KOSDAQ Firm and bank performance

$$ROE = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 BFROA + \alpha_4 ASSET + \alpha_5 LLP$$
$$+ \alpha_6 NONI + \alpha_7 EQ + \alpha_8 LOAN + \alpha_9 CPI + \alpha_{10}\sum year + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	0.346***	3.830	0.000
BFNI	-0.000	-0.320	0.747
BFROE	-0.002	-0.480	0.634
BFROA	-0.001	-0.070	0.946
ASSET	-0.024***	-7.880	<.000
LLP	-6.032***	-59.960	<.000
NONI	23.384***	38.360	<.000
EQ	2.251***	12.210	<.000
LOAN	0.339***	10.930	<.000
CPI	0.047***	19.140	<.000
No. of observations		4,925	
Adj R^2		0.660	

Notes:
Refer to table 1 for definition variables.
Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 9B

KOSDAQ Firm and bank earnings management

$$DLLP = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 ASSET + \alpha_4 LLP + \alpha_5 NONI + \alpha_6 EQ$$
$$+ \alpha_7 LOAN + \alpha_8 ROA + \alpha_9 WO + \alpha_{10}\sum year + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	-4.581***	-5.540	<.000
BFNI	0.009	1.130	0.256
BFROE	**-0.071***	**-2.790**	**0.005**
ASSET	0.139***	5.100	<.000
LLP	25.222***	19.290	<.000
NONI	-16.564***	-2.670	0.008
EQ	23.647***	12.590	<.000
LOAN	-2.184***	-7.510	<.000
ROA	-0.394***	-14.110	<.000
WO	-52.077***	-20.440	<.000
No. of observations		4,925	
Adj R^2		0.201	

Notes:
Refer to table 1 for definition variables.
Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 10A

Averaged firm performance and bank performance

$$ROE = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 BFROA + \alpha_4 ASSET + \alpha_5 LLP + \alpha_6 NONI + \alpha_7 EQ + \alpha_8 LOAN + \alpha_9 CPI + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	.188	.067	.947
BFNI	**1.316****	**2.605**	**.011**
BFROE	**-.461****	**-2.449**	**.016**
BFROA	**1.804*****	**3.145**	**.002**
ASSET	-1.383**	-2.322	.022
LLP	-7.155***	-7.511	<.000
NONI	38.961***	8.896	<.000
EQ	2.005	1.234	.220
LOAN	.193	.802	.424
CPI	.062***	3.460	.001
No. of observations		117	
Adj R^2		0.570	

Notes:

Refer to table 1 for definition variables.

Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level.

Table 10B

Averaged firm performance and bank earnings management

$$LLP = \alpha_0 + \alpha_1 BFNI + \alpha_2 BFROE + \alpha_3 BFROA + \alpha_4 ASSET + \alpha_5 NONI + \alpha_6 EQ + \alpha_7 LOAN + \alpha_8 ROA + \alpha_9 WO + \varepsilon$$

Variable	Parameter Estimate	t Value	Pr > |t|
Intercept	.181	.877	.382
BFNI	**-.072****	**-1.995**	**.049**
BFROE	-.007	-1.138	.258
BFROA	.091**	2.087	.039
ASSET	.012	.215	.830
NONI	2.123***	7.302	<.000
EQ	-.027	-.232	.817
LOAN	.014	.867	.388
ROA	-.011***	-7.921	<.000
WO	.922***	6.086	<.000
No. of observations		117	
Adj R^2		0.753	

Notes:

Refer to table 1 for definition variables.

Values with *** are statistically significant at the 0.01 level, values with ** are statistically significant at the 0.05 level, and values with * are statistically significant at the 0.1 level

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Why Do Main Banks Manage Earnings? : Client Firms' Perspective

(주거래은행의 이익조정 동기: 차입기업의 관점에서)

본 연구는 차입기업의 재무성과가 어떻게 주거래은행의 재무성과와 이익조정 동기에 영향을 미치는지 살펴보았다. 특히, 차입기업이 충분한 재무적인 성과를 달성하지 못하거나 어려움을 겪게 될 경우 주거래은행의 재무성과와 이익조정에 미치는 영향을 살펴보았다.

주거래은행과 차입기업의 긴밀한 관계는 차입기업에게 있어 좀 더 편리하고 안정적으로 자금을 확보하고 관리하여 성과에 긍정적인 영향을 미칠 수 있도록 도와준다. 또한 주거래은행의 경우 수익구조에 중요한 부분을 차지하고 있는 차입기업이 중요한 고려대상이 될 수 있다. 따라서 차입기업의 재무적 성과가 주거래은행의 이익이나 성과에 중요하게 영향을 미칠 수 있으며 차입기업의 재무적 어려움은 주거래은행의 수익이 불안정해질 수 있음을 시사한다

실증분석을 위하여 국내 13 개 은행과 각 은행을 주거래 은행으로 하는 기업을 대상으로 하여 2000 년부터 2008 년까지 차입기업의 성과가 주거래은행의 재무성과와 이익조정에 미치는 영향을 측정하였다. 회귀분석 결과 차입기업의 재무적 성과와 주거래은행의 재무적 성과가 유의한 양(+)의 관계가 있는것으로 나타났다. 또한 차입기업의 재무적 성과와 주거래은행의 이익조정은 유의한 음(-)의 관계가 있는 것으로 나타났다. 이는 차입기업의 성과가 좋을수록 주거래은행의 성과도 좋다는 것을 시사한다. 또한 차입기업의 성과가 좋을수록, 주거래은행의 이익조정은 낮아질수 있다는 것으로 해석된다.

본 연구는 지금까지의 선행연구가 주거래은행이 어떻게 차입기업에 영향을 미치는지 살펴본 것과는 달리 차입기업의 관점에서 주거래은행의 재무적 성과를 살펴본 점에서 한계점을 극복하였다고 할 수 있다. 또한 과거의 은행에 관련된 선행연구가 주로 일본과 미국에 대한 연구였다는 점을 감안하였을 경우, 은행에 기반하여 자금조달이 많은 한국을 대상으로 연구를 확장하였다는 점에서 의의를 찾을 수 있다. 또한, 이익조정이 회계정보의 질에 영향을 준다는 점을 감안하였을 때, 금융 감독 관계자들에게 은행의 이익조정의 동기를 분석 함으로서 시사점을 제시한다고 판단된다.