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Abstract

This study examines loan loss provisions following top executive turnovers in Japanese banks. The study differentiates between voluntary and forced turnover and inside and outside succession. The results show that incoming top executives, following forced turnover or outside succession, tend to reduce loan loss provisions in the second year of their tenure. This suggests that incoming top executives attempt to create a positive impression of their abilities by increasing earnings in the second year. This evidence differs from previous research showing "big bath" accounting in the first year. Additionally, outgoing top executives recognize greater loan loss provisions in the final year before outside succession. This study further shows that incoming top executives attempt to increase earnings following succession through gains and losses from securities sales, commissions, and fees.

1. Introduction

Japan has a bank-based financial system centered on bank lending, while the U.S. has a market-based financial system (Aoki and Patrick 1994; Levine 2002). The ratio of borrowings to total assets of listed firms in Japan was 20 percent in 2020, and banks remain an important source of funding, even though Japan has the third largest capital market worldwide.[1] More than 99 percent of Japanese firms were (unlisted) small- and medium-sized enterprises in 2016 (The Small and Medium Enterprise Agency 2019, 2022) and are heavily dependent on bank loans. Therefore, the management policies of bank executives are crucial to most firms in Japan and ultimately have a significant impact on the entire Japanese economy.

As the management turnover of banks often results in changing their management policies, it is of interest to many firms under the bank-based financial system. A bank's lending activities are determined by its management policies, under which the calculation of the allowance for loan losses requires management estimates. These estimates strongly impact financial performance and are influenced by management reporting incentives. The recognition of loan loss provisions (LLP) is subject to the regulation and supervision of regulatory authorities, but since stakeholders cannot fully monitor it, discretion through estimates that reflect management's preferences still exists (Nichols, Wahlen, and Wieland 2009, 95). Hence, a CEO facing poor performance may inflate earnings through LLP to avoid dismissal. Outside CEOs can also resort to underestimating LLP to secure jobs in the early years of their tenure.

[1] We calculate the ratio by short- and long-term borrowing divided by total assets for the listed firms.

Over the past decades, many studies have focused on banks' earnings management, such as income smoothing (e.g., Ahmed, Takeda, and Thomas 1999; Kanagaretnam, Lobo, and Mathieu 2003; Umezawa 2016) and benchmark beating (e.g., Beatty, Ke, and Petroni 2002; Shen and Chih 2005; Fukaya 2022). LLP play a pivotal role in the earnings management literature.[2] However, few studies examine the relationship between management turnover and earnings management in the banking industry (Bornemann, Kick, Pfingsten, and Schertler 2015; Watanabe 2017; Sarkar, Subramanian, and Tantri 2019; Shen and Wang 2019). These studies consistently showed that incoming CEOs following turnover often increase discretionary expenses such as LLP. Reducing current earnings by overestimating LLP lowers future performance benchmarks.

Incoming top executives in the early years of their tenure have the incentive to engage in earnings management in both income-increasing and income-decreasing directions.[3] The goals of both directions of earnings management are common: incoming top executives seek to boost current or future earnings to enhance their reputation and secure their jobs. Our study builds on previous literature by considering four types of management turnover in Japanese regional banks: forced-voluntary turnover, and outside-inside succession.

Our study centers on the analysis of LLP, as they represent the primary accrual component for most banks (Kanagaretnam et al. 2003). McNichols (2000) suggested focusing on specific accruals rather than aggregate accruals to examine further the relationship between specific accruals and earnings management incentives.

This study employs the LLP model developed by Umezawa (2016), a comprehensive model that captures LLP under the nonperforming loan categories in Japanese regulations. The model also considers the size, income-smoothing incentive, and signaling hypotheses on the determinants of LLP discussed in the literature (e.g., Ahmed et al. 1999; Kanagaretnam et al. 2003). We further decompose LLP into general loan loss provisions (GLLP) and specific loan loss provisions (SLLP). In an additional analysis, we examine discretionary gains and losses from security sales, commissions, and fees, using Ertan's (2022) model.

Using a sample of 1,418 bank-year observations from Japanese regional banks from 2001 to 2020, we find that incoming top executives following a forced turnover and outside succession tend to recognize

[2] Beatty and Liao (2014), Lobo (2017), and Ozili and Outa (2017) reviewed recent empirical studies on LLPs.
[3] In the majority of Japanese banks, the title of the top executive is "President" (*Todori* or *Shatyo*). Some financial holding banks have a CEO as their highest-ranking executive, when they do not have a president. Consequently, this study refers to both titles collectively as "top executives," and uses the term CEO when referring to previous studies.

a lower level of LLP in the second year of their tenure, in contrast to the prior literature's findings of a "big bath" in the first year. This lower LLP can lead to an increase in earnings in the second tenure year. It is possible that incoming top executives may be unable to recognize significantly higher LLP in the first year due to regulatory capital requirements and/or that the income-decreasing and increasing LLP may offset each other.

The findings from splitting LLP into GLLP and SLLP are consistent with the main results. The results for gains and losses from security sales, commissions, and fees coincide with those for LLP. We also find that outgoing top executives before outside succession increase LLP in their final years. This helps incoming top executives to improve their performance. To provide robustness to our findings, we substitute the LLP model with alternative models, in line with Beatty and Liao (2014) and Bushman and Williams (2012), for data from the U.S. and other countries. However, our results did not significantly change.

This study makes three main contributions to the literature. First, it is the first study to focus on and present evidence for income-increasing behavior in the second year of a bank's top executive tenure following a forced turnover and outside succession. The bank's income-increasing behavior through LLP has been treated as a part of income smoothing in prior studies, but we find evidence after controlling for it. The literature shows big bath accounting through LLP in the first year. We also found that outgoing top executives before outside succession are likely to increase LLP. The absence of prior research documenting similar findings suggests that this behavior is exclusive to Japanese banks.

Second, we shed light on the association of GLLP and SLLP with management turnover by decomposing LLP into GLLP and SLLP. Although some studies have examined the relationship between LLP and management turnover, research has yet to investigate the effect of management turnover on GLLP and SLLP. Our results indicate that the effects of SLLP have an important influence on those of LLP, and the findings for GLLP are consistent with those of LLP.

Third, this study adds evidence to the literature on real earnings management in the banking sector. We find that incoming top executives tend to increase earnings through gains and losses from security sales during the second year of tenure. Furthermore, we extend the existing literature on banks' real activities by demonstrating discretionary commissions and fees following management turnover. Previous studies have paid little attention to commissions and fees. This is the first study to show the relationship between management turnover and commissions and fees.

The remainder of this paper is organized as follows. Section 2 discusses the related literature and

hypothesis development. Section 3 describes the research design of the study. Section 4 presents our empirical results. Section 5 provides additional analyses and robustness checks, and Section 6 concludes the paper.

2. Prior literature and hypotheses development

Incoming top executives can engage in income-decreasing and income-increasing earnings management during the early years of their tenure. First, we consider income-decreasing earnings management. For non-financial firms, previous studies document that incoming top executives take a big bath to lower future target earnings in the early years of their tenure (e.g., Elliott and Shaw 1988; Pourciau 1993; Francis, Hanna, and Vincent 1996).

Previous studies in the banking industry consistently find that incoming top executives engage in income-decreasing earnings management in the early years of their tenure. Bornemann et al. (2015) document an increase in discretionary expenses, such as LLP, to lower target earnings the following year, using data from 691 German savings banks from 1993 to 2012. Their results are promoted when incoming CEOs are from outside the bank, and the previous CEO has not retired.[4]

Sarkar et al. (2019) examined Indian government-owned banks (GOBs) from 2002 to 2013. They focus on CEO turnover, subject to a mandatory retirement system that is exogenously determined and independent of firm performance. They find that newly appointed CEOs of GOBs increase LLP by 8.5% and reduce lending to lower their personal risks. However, CEOs who retire at a mandatory retirement age do not increase LLP.

Using data on Taiwanese banks between 2002 and 2010, Shen and Wang (2019) classified turnover into three categories: forced and voluntary turnover in private banks, turnover in government-owned banks, and turnover through mergers and acquisitions (M&A), and investigate the relationship between management turnover and "big bath" behavior. They find that CEOs following a forced turnover in private banks tend to inflate LLP and provide loan charge-offs to take a big bath, whereas incoming CEOs in government-owned banks engage only in increasing LLP. Incoming CEOs after M&A do not induce either big baths.

Watanabe (2017) explored the use of Japanese banks from 2002 to 2013 and incoming top executives dispose of nonperforming loans (consisting of SLLP and loan charge-offs of loans) following the departure of the top executive or the chairman who experienced the top executive. However, Watanabe

[4] Bornemann et al. (2015, 192) defined retirement as a turnover in which the CEO has attained the age of 60 years and it is observed that it was their final appointment.

(2017) did not extensively use the total LLP or elaborate on voluntary and forced turnover.[5]

Based on the previous discussion, we posit that incoming top executives utilize earnings management, which decreases earnings in their first year in office, to demonstrate their ability to improve performance in subsequent years to stakeholders. At the same time, the incoming top executive can attribute this loss to the outgoing top executive without damaging their reputation and emphasize dramatic recovery in future performance.

Taking a big bath is particularly likely when an outgoing top executive is not retained on the board after a forced turnover. When an outgoing top executive remains involved in management following a voluntary turnover, it is challenging to hold the former CEO accountable for the loss (Choi, Kwak, and Choe 2014). Voluntary turnover results from the outgoing top executive's decision to retire or accept another position rather than being prompted by poor performance. Incoming top executives following a voluntary turnover are under less pressure to perform better than those following a forced turnover. Thus, they are more inclined to take a "big bath" following forced turnover than voluntary turnover (Shen and Wang 2019).

To avoid taking responsibility for the losses incurred by their predecessors, incoming top executives following outside succession may also wish to recognize and address these losses as early as possible in their first year for their reputation and job security. Then, incoming top executives following outside succession tend to overestimate the expenses in the first year to improve their performance in the early stages relative to those following inside succession. Bornemann et al. (2015) proposed that insiders should not be able to effectively blame past poor performance and revise their predecessor decisions through a "big bath," whereas it is relatively easy for outsiders to do so. Thus, incoming top executives following outside succession have a stronger incentive to demonstrate their capabilities in the years after their appointment.

This income-decreasing behavior enables incoming top executives to alleviate the pressure from outsiders, such as shareholders and debtholders, and insiders, such as a board of directors, to facilitate future earnings recovery.

The opposite hypothesis is that incoming top executives are incentivized to increase earnings intentionally. Regardless of the timing of management turnover, meeting or beating earnings benchmarks such as zero earnings, earnings in the previous year, or analyst forecasts are critical to the

[5] In Watanabe (2017), the dummy variable for incoming top executives after outside succession was insignificant.

evaluations of the CEO (Graham, Harvey, and Rajgopal 2005). Missing the earnings target would negatively affect their reputation with the market and stakeholders; thus, they should avoid it from their career concerns. The managerial ability of incoming CEOs may be uncertain for stakeholders, and they may pay attention to their initial performance (Gibbons and Murphy 1992).

Ali and Zhang (2015) argued that CEOs are highly motivated to present favorable performance in the early years of their tenure to maintain their reputation and avoid adverse effects on future compensation, autonomy, and termination. CEOs who report poor performance may be labeled as having the low ability, which could damage their entire career. Even high-ability CEOs would inflate earnings early in their tenure to avoid reporting poor performance. Ali and Zhang (2015) found that CEOs inflate earnings in their tenures' early and final years. However, they do not distinguish between CEOs who are promoted from inside or recruited from outside.

Incoming CEOs appointed from outside the firm have an incentive to enhance earnings compared to insider CEOs (Choi et al. 2014; Kuang, Qin, and Wielhouwer 2014; Jongjaroenkamol and Laux 2017). Outsider CEOs are highly expected by the board of directors and shareholders and must deliver strong performance in their early years. Outsider CEOs have less firm-specific knowledge and skills and greater risk than insider CEO (Harris and Helfat 1997; Parrino 1997). Management, unknown to stakeholders, must excel in demonstrating its managerial skills. Kuang et al. (2014) posited that outside CEOs are motivated by a stronger desire to succeed and a lower likelihood of long-term employment. They find incoming CEOs are more likely to manage earnings upward in the short run after outside succession. Moreover, outside CEOs cannot wait to benefit from the cookie jar reserve of deferred earnings later in their tenures. They provide evidence of the positive impact of a CEO's outside origin on earnings management.

In a forced turnover, since predecessors do not already exist or retain power after a forced turnover, incoming top executives are motivated by demonstrating their managerial ability through their performance, unlike incoming top executives after inside succession. Incoming top executives who lack the protection of their predecessors are in a relatively vulnerable position. As a result, they are likely to prioritize actions that generate earnings in the early stages of their tenure.[6]

The two scenarios discussed above share the incentive to boost earnings in the early years of tenure but differ in whether the first year should be increased. Therefore, the first-year hypothesis does not

[6] Takasu and Nakano (2017), who studied the conservativeness and earnings management of the allowance for loan losses in the Japanese banking industry, reported that the capital adequacy ratio regulation restricts banks from inflating the LLP (big bath). This suggests that it is difficult for the incoming CEOs of Japanese banks to take a big bath under the regulation.

specify a direction for earnings management.

Hypothesis 1a: Incoming top executives engage in earnings management in the first year following a turnover.

Hypothesis 1b: Incoming top executives engage in earnings management in the first year following a forced turnover.

Hypothesis 1c: Incoming top executives engage in earnings management in the first year following an outside succession.

In their second year, incoming top executives are incentivized to inflate their earnings. Our second hypothesis, H2, is as follows:

Hypothesis 2a: Incoming top executives engage in income-increasing earnings management in the second year following a turnover.

Hypothesis 2b: Incoming top executives engage in income-increasing earnings management in the second year following a forced turnover.

Hypothesis 2c: Incoming top executives engage in income-increasing earnings management in the second year following an outside succession.

3. Research design, sample selection, and data

3.1. Loan loss provision model

We develop a testing model based on Umezawa (2016), an LLP model according to Japanese standards for allowances and write-offs. In Japan, the Financial Reconstruction Act (FRA) requires banks to classify their loans into "Normal credits," "Needs special attention credits," "Doubtful credits," and "Bankrupt or de facto bankrupt credits" based on their risk categories.[7] Low-risk loans, "Normal credits" and "Needs special attention credits," are assigned to the general loan loss allowance (GLLA), while high-risk loans, "Doubtful credits" and "Bankrupt or de facto bankrupt credits," are allocated to the specific loan loss allowance (SLLA).

[7] "Normal (Non-classified) credits" are credits with no problems in terms of the financial position or business performance of the borrower, i.e., all credits not classified as "Needs special attention," "Doubtful," or "Bankrupt or De facto bankrupt" credits. "Needs special attention credits" are credits to "needs attention" borrowers that are "three months or more in arrears" or have been given relaxed lending conditions. "Doubtful credits" are credits with a high likelihood that the principal will not be collected and interest not received according to the contract because the financial position and business performance of the borrower have worsened, although the borrower is not yet bankrupt. In other words, these are credits to "in danger of bankruptcy" borrowers. "Bankrupt or De facto bankrupt credits" are credits to borrowers that have fallen into bankruptcy, corporate rehabilitation, composition or the like, or similar credits. These are credits to "De facto bankrupt" borrowers and "bankrupt" borrowers (FSA 2014).

Umezawa (2016) incorporates "Normal credits" and "Needs special attention credits" as independent variables in his GLLA estimation model and "Doubtful credits" and "Bankrupt or de facto bankrupt credits" as the independent variables in the SLLA estimation model. He built an estimation model for the GLLP and SLLP based on the difference between each LLA required at the end of period *t* and the LLA in period *t*-1 after adjusting for direct write-offs and loan sales. Details are provided in Appendix A.

The GLLP and SLLP models include the change in nonperforming loans ($CHNPL_{it}$) in the current period and the amount of nonperforming loan (NPL) in the previous period (NPL_{it-1}) as independent variables. The former variable captures the difference in allowance, while the latter captures reversals of direct write-offs and loan sales. Finally, the GLLP and SLLP models are combined to form a comprehensive LLP model. Umezawa (2016) adds variables ($AdjCAP_{it-1}$, $EBTP_{it}$, $CHEBTP_{it+1}$) to examine the capital adequacy ratio adjustment hypothesis, income smoothing hypothesis, and signaling hypothesis, as suggested by Ahmed et al. (1999) and Kanagaretnam et al. (2003). These variables served as control variables in this study. Equation (1) is the baseline model without management turnover variables and includes bank- and year-fixed effects.

$$LLP_{it} = \beta_0 + \beta_1 CHNPL0_{it} + \beta_2 CHNPL1_{it} + \beta_3 CHNPL2_{it} + \beta_4 CHNPL3_{it} + \beta_5 NPL0_{it-1} + \beta_6 NPL1_{it-1} + \beta_7 NPL2_{it-1} + \beta_8 NPL3_{it-1} + \beta_9 SIZE_{it-1} + \beta_{10} AdjCAP_{it-1} + \beta_{11} EBTP_{it} + \beta_{12} CHEBTP_{it+1} + \beta_{13} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (1)$$

NPL0, NPL1, NPL2, and *NPL3* represent "Normal (Non-classified)," "Needs special attention," "Doubtful," and "Bankrupt or De facto bankrupt" credits, respectively. *CHNPL0, CHNPL1, CHNPL2,* and *CHNPL3* indicate the changes in *NPL0, NPL1, NPL2*, and *NPL3*, respectively. *SIZE* is the natural logarithm of total assets, and *DNEGEBTP* captures the effect of a negative *EBTP*. These were added by Umezawa (2016). Appendix B provides the definitions of the variables.

First, this study incorporates two dummy variables of managerial turnover in equation (1) to test the relationship between turnover and LLP.

$$LLP_{it} = \beta_0 + \beta_1 YearOne_{it} + \beta_2 YearTwo_{it} + \beta_3 CHNPL0_{it} + \beta_4 CHNPL1_{it} + \beta_5 CHNPL2_{it} + \beta_6 CHNPL3_{it} + \beta_7 NPL0_{it-1} + \beta_8 NPL1_{it-1} + \beta_9 NPL2_{it-1} + \beta_{10} NPL3_{it-1} + \beta_{11} SIZE_{it-1} + \beta_{12} AdjCAP_{it-1} + \beta_{13} EBTP_{it} + \beta_{14} CHEBTP_{it+1} + \beta_{15} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (2)$$

YearOne and *YearTwo* are test variables for H1a and H2a, respectively. *YearOne* (*YearTwo*) is an indicator variable that equals one for the bank year, the first (second) year of top executives' tenure.

β_1 has a positive (negative) sign if incoming top executives in the first year of tenure use LLP to deflate (inflate) earnings relative to a bank-year without turnover. β_2 is predicted to have a positive sign under H2, which assumes that incoming top executives reduce LLP to increase their earnings in the second year. β_2 also represents the difference in *LLP* from bank years with no turnover.

I divide *YearOne* and *YearTwo* into two variables representing the years following voluntary and forced turnover.

$$LLP_{it} = \beta_0 + \beta_1 VYearOne_{it} + \beta_2 VYearTwo_{it} + \beta_3 FYearOne_{it} + \beta_4 FYearTwo_{it} + \beta_5 CHNPL0_{it} + \beta_6 CHNPL1_{it} + \beta_7 CHNPL2_{it} + \beta_8 CHNPL3_{it} + \beta_9 NPL0_{it\text{-}1} + \beta_{10} NPL1_{it\text{-}1} + \beta_{11} NPL2_{it\text{-}1} + \beta_{12} NPL3_{it\text{-}1} + \beta_{13} SIZE_{it\text{-}1} + \beta_{14} AdjCAP_{it\text{-}1} + \beta_{15} EBTP_{it} + \beta_{16} CHEBTP_{it+1} + \beta_{17} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (3)$$

As in equation (2), *VYearOne* (*VYearTwo*) is an indicator variable that equals one for bank year, which is the first (second) year of top executives' tenure following a voluntary turnover. *FYearOne* (*FYearTwo*) was constructed similarly for forced turnover. The predicted signs for β_1 and β_2 (β_3 and β_4) correspond to those in equation (2) and represent the difference in LLP from non-turnover bank years. We also test β_1 (β_2) $=$ β_3 (β_4) to examine the difference between voluntary and forced turnovers.

Next, we replace the management turnover variables for voluntary and forced turnover with those for internal and external succession, respectively.

$$LLP_{it} = \beta_0 + \beta_1 IYearOne_{it} + \beta_2 IYearTwo_{it} + \beta_3 OYearOne_{it} + \beta_4 OYearTwo_{it} + \beta_5 CHNPL0_{it} + \beta_6 CHNPL1_{it} + \beta_7 CHNPL2_{it} + \beta_8 CHNPL3_{it} + \beta_9 NPL0_{it\text{-}1} + \beta_{10} NPL1_{it\text{-}1} + \beta_{11} NPL2_{it\text{-}1} + \beta_{12} NPL3_{it\text{-}1} + \beta_{13} SIZE_{it\text{-}1} + \beta_{14} AdjCAP_{it\text{-}1} + \beta_{15} EBTP_{it} + \beta_{16} CHEBTP_{it+1} + \beta_{17} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (4)$$

IYearOne (*IYearTwo*) is an indicator variable that equals one for the bank year, the first (second) year of top executives' tenure following insider succession. *OYearOne* (*OYearTwo*) was created in a similar vein for outsider succession. The predicted signs for β_1 and β_2 (β_3 and β_4) correspond to those in equation (2) and represent the difference in LLP from the non-turnover bank year. We also test β_1 (β_2) $=$ β_3 (β_4), which indicates the difference between inside and outside succession.

3.2. Sample selection, data, and variable measurements for management turnover

3.2.1. Sample selection and data

Our sample consists of listed regional banks that are members of the Regional Banks Association of Japan and the Second Association of Regional Banks.[8] All regional banks belong to one of these organizations. The sample period is March 2001 to March 2020. All bank fiscal years in our sample begin in April and end in March of the following year.

We used data from the parent-only financial statements of Japanese banks. The data on each category of nonperforming loans for the estimation model are defined in the FRA (Act No.132 of 1998) and disclosed only in a parent-only financial statement.[9] Specific loan loss provisions are disclosed in parent-only data. We exclude bank years in which mergers and acquisitions (M&A) occur, as well as all consecutive observations of management turnover and observations one year before or after a management turnover that overlaps one year before or after another management turnover. Observations with missing data were also removed. Banks with fewer than two observations are dropped to allow for bank fixed effects. As a result, our final LLP consists of 1,418 observations.

Financial data were obtained from Nikkei NEEDS-FinancialQUEST (Nikkei Media Marketing). Data on specific loan loss provisions, reversal of allowance for loan losses before 2005, and nonperforming loans for some banks in 1999 and 2000 were manually collected from the website of the Japanese Bankers Association.

3.2.2. Variables' measurement of management turnover

Our data on management turnover were collected using the "*Yakuin* (Directors)" in the *Kigyo-Kihon* Database (Nikkei Media Marketing). This database lists the directors in the annual reports of all listed firms and provides the name, position, date of birth, date of joining the firms, and related information for each director. We first define the top executive of a bank as an individual with the title *Todori* or *Shacho* (President) in the database. In almost all Japanese regional banks, both titles denote the highest level of executives.[10] Management turnover is identified as a change in the name of the top executive within the same bank code. Since this database is available from the fiscal year ending March 2003, we rely on the "new presidents" list in *Yakuin Shikiho* (Executive Officers Handbook) before March 2003.[11] To specify *YearOne*, *YearTwo*, and non-turnover bank-year data for the entire sample period,

[8] We cover regional banks in this study. City banks differ from regional banks in terms of business lines and operating areas as well as their regulatory exposure (e.g., Spiegel and Yamori, 2004; 2007). In addition, this study covers publicly traded banks that disclose parent-only financial statements, so subsidiary banks of holding ones are not included in the sample (these banks are not listed). In the early 2000s, all city banks established financial holding banks and became their subsidiary banks of them. Since this leads to a significant restriction in the number of observations of listed city banks, city banks are excluded from the sample. Umezawa (2016) and Fukaya (2022), who conduct research on earnings management, also target only Japanese regional banks for the same reason.

[9] Our sample period begins in 2001 to create nonperforming loan variables for the estimation of equation (1).

[10] Some financial holding banks have a CEO as a position but are not included in our sample.

[11] *Yakuin Shikiho*, published annually by *Toyo Keizai Inc*, provides information on directors of all listed firms and major non-listed firms in Japan. It stopped providing the list of new presidents in 2010.

we collected data on management turnover from April 1999 onwards. As mentioned before, all the bank fiscal years in our sample end in March, when management turnover occurs between April of the previous year and March of the current year. *YearOne* in the current fiscal year is set to one. This method specifies the year the incoming top executive performs fiscal year-end closures.

We distinguish between forced-voluntary turnover and inside-outside succession to test our hypotheses. First, following Kaplan (1994) and Miyajima, Ogawa, and Saito (2018), forced turnover is defined as the case in which the outgoing top executive does not remain in the position of chairman or vice chairman.[12] The chairman in Japan is generally regarded as less powerful than the president (Kaplan 1994). Miyajima et al. (2018, 21) state that "the standard practice in Japanese firms has been to appoint the incumbent president to the post of a chairman or vice chairman after his tenure ends, as the presidency is filled by a successor promoted from within the firm." Indeed, they show that 60% of outgoing top executives retain the positions of the chairman and vice chairman of the board.

Next, outside succession in this study is determined by the length of the period between joining the firm and being promoted to a top executive position. A director from outside the firm who would be nominated as president in the future would normally be expected to promote upon joining the board. It is reasonable to posit that they would have a period to demonstrate performance before being promoted. Shuto (2010) and Ishida and Hachiya (2021), who focus on management turnover in Japanese firms, used a four-year interval between these events to define outside succession. Following these studies, we define inside succession as when the incoming top executive is promoted within four years of joining the bank. Some studies on management turnover in Japanese firms (e.g., Yamaguchi 2021) define a promotion within one year as inside succession, but Kang and Shivdasani (1995) point out that short-term performance may not be sufficient to evaluate a promotion to the CEO.

4. Empirical results

Table 1 presents the descriptive statistics for the variables in equations (2)–(4). The value for *YearOne* was approximately 14 percent. On average, one in seven Japanese regional banks experienced management turnover per year. The mean value of *LLP* is 0.00170, indicating that LLP significantly impacts ROA, with a mean value of 0.00114 (not tabulated). The mean value of *GLLP* is approximately zero, and that of *SLLP* has a larger value than *LLP*, indicating the impact of *GLLP* on *LLP*.

[12] Miyajima et al. (2018) defined turnover as a voluntary turnover even if the former president remains on the board except for the position of chairman or vice chairman. Since such a turnover is rare in the banking industry, we do not include the turnover as a voluntary turnover. Kaplan (1994) also classified the turnover into "non-standard turnover". The main results do not change substantially when we classify the turnover as voluntary turnover.

[Insert Table 1 here]

Table 2 reports the mean and median of LLPs by type of management turnover. All available turnover data (*YearOne*, *YearTwo*, and others) are included to maintain a sufficient sample size.[13] In the first year, 27.2 percent (54 / 199) of incoming top executives are appointed following a forced turnover. It is worth noting that more than 70 percent of outgoing top executives in the Japanese banking industry become chairman or vice-chairman with the appointment of incoming top executives. The ratio of outside top executives is less than 20 percent, and 80 percent of top executives are bank insiders. The *LLP* in the second year (0.00147) is 25 percent lower than that of the first year (0.00195). Especially, incomings top executives following a forced turnover and outside succession tend to report a greater reduction in *LLP* than the other types of turnover. Table 3 is the Pearson correlation matrix. *LLP*, *GLLP,* and *SLLP* have a positive (negative) correlation with the variables representing the first (second) year following management turnover.

[Insert Table 2 here]
[Insert Table 3 here]

Table 4 presents the estimation results for equations (2)–(4). We winsorize all the dependent and independent variables at the 1st and 99th percentiles, except for the dummy variables. The standard error is clustered by firm and year. In Column [1], neither the coefficient of *YearOne* (β_1) nor *YearTwo* (β_2) is significant. Thus, H1a and H2a are not supported. In Column [2], we replace *YearOne* and *YearTwo* in equation (2) with *VYearOne, FYearOne, VYearTwo,* and *FYearTwo* to test hypotheses H1b and H2b. The coefficient of *FYearTwo* (β_4) is significantly negative (but not significantly lower than that of *VYearTwo*). These results are consistent with H2b and suggest that incoming top executives following forced turnover have lower LLP in the second year. Neither *VYearOne* (β_1) nor *FYearOne* (β_3) has a significant coefficient, and H1b is not supported.

[Insert Table 4 here]

In Column [3], we replace *YearOne* and *YearTwo* with *IYearOne*, *OYearOne, IYearTwo*, and *OYearTwo* to test H1c and H2c. The coefficient of *OYearTwo* (β_4) was significantly negative and lower than that of *IYearTwo* (β_2). These results are consistent with H2c and indicate that incoming top executives following outside succession have lower LLP in the second year. Taken together with the results shown in Column [2], incoming top executives in Japanese banks do not take a big bath in total.

[13] When the observations with only management turnover data in the first or second year, the primary results are broadly retained.

Insignificant coefficients of *YearOne, VYearOne,* and *FYearOne* variables imply that the income-decreasing LLP (big bath) may offset each other's income-increasing LLPs. Panel A of Table 2 in Ali and Zhang (2015) also shows an insignificant coefficient for their *YearOne*, suggesting a similar offsetting relationship. Alternatively, incoming top executives may not recognize significant income-decreasing LLPs in the first year because of the capital adequacy ratio.[14]

Among the control variables, the results for loan-related variables are generally consistent with those reported by Umezawa (2016). The size variable is significant in all equations, but the coefficients of *EBTP* and *DNEGEBTP* are insignificant.

In summary, the results in Table 4 support hypotheses H2b and H2c, suggesting that incoming top executives, following forced turnover and outside succession, tend to inflate earnings using LLP in the second year of their tenure.

Next, we decompose the LLP model into GLLP and SLLP models, considering that the LLP model combines the GLLP and SLLP models (see Appendix A). To test the hypotheses, management turnover variables are included in equations (A5) and (A6), as in equations (2)–(4). Following Umezawa (2016), *GLLP* is calculated by the change in the general allowance for loan losses, and *SLLP* is the net transfer to the specific allowance for loan losses. We regress equations (5)–(10) for *GLLP* and *SLLP.*

$$GLLP_{it} = \beta_0 + \beta_1 YearOne_{it} + \beta_2 YearTwo_{it} + \beta_3 CHNPL0_{it} + \beta_4 CHNPL1_{it} + \beta_5 NPL0_{it\text{-}1} + \beta_6 NPL1_{it\text{-}1} + \beta_7 SIZE_{it\text{-}1} + \beta_8 AdjCAP_{it\text{-}1} + \beta_9 EBTP_{it} + \beta_{10} CHEBTP_{it+1} + \beta_{11} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (5)$$

$$GLLP_{it} = \beta_0 + \beta_1 VYearOne_{it} + \beta_2 VYearTwo_{it} + \beta_3 FYearOne_{it} + \beta_4 FYearTwo_{it} + \beta_5 CHNPL0_{it} + \beta_6 CHNPL1_{it} + \beta_7 NPL0_{it\text{-}1} + \beta_8 NPL1_{it\text{-}1} + \beta_9 SIZE_{it\text{-}1} + \beta_{10} AdjCAP_{it\text{-}1} + \beta_{11} EBTP_{it} + \beta_{12} CHEBTP_{it+1} + \beta_{13} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (6)$$

$$GLLP_{it} = \beta_0 + \beta_1 IYearOne_{it} + \beta_2 IYearTwo_{it} + \beta_3 OYearOne_{it} + \beta_4 OYearTwo_{it} + \beta_5 CHNPL0_{it} + \beta_6 CHNPL1_{it} + \beta_7 NPL0_{it\text{-}1} + \beta_8 NPL1_{it\text{-}1} + \beta_9 SIZE_{it\text{-}1} + \beta_{10} AdjCAP_{it\text{-}1} + \beta_{11} EBTP_{it} + \beta_{12} CHEBTP_{it+1} + \beta_{13} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (7)$$

$$SLLP_{it} = \beta_0 + \beta_1 YearOne_{it} + \beta_2 YearTwo_{it} + \beta_3 CHNPL2_{it} + \beta_4 CHNPL3_{it} + \beta_5 NPL2_{it\text{-}1} + \beta_6 NPL3_{it\text{-}1} +$$

[14] One possible interpretation of the results is that earnings management in the first year is relatively difficult for incoming top executives following outside succession as they lack familiarity with the bank's specific information and human capital.

$$\beta_7 SIZE_{it\text{-}1} + \beta_8 AdjCAP_{it\text{-}1} + \beta_9 EBTP_{it} + \beta_{10} CHEBTP_{it+1} + \beta_{11} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (8)$$

$$SLLP_{it} = \beta_0 + \beta_1 VYearOne_{it} + \beta_2 VYearTwo_{it} + \beta_3 FYearOne_{it} + \beta_4 FYearTwo_{it} + \beta_5 CHNPL2_{it} + \beta_6 CHNPL3_{it} + \beta_7 NPL2_{it\text{-}1} + \beta_8 NPL3_{it\text{-}1} + \beta_9 SIZE_{it\text{-}1} + \beta_{10} AdjCAP_{it\text{-}1} + \beta_{11} EBTP_{it} + \beta_{12} CHEBTP_{it+1} + \beta_{13} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (9)$$

$$SLLP_{it} = \beta_0 + \beta_1 IYearOne_{it} + \beta_2 IYearTwo_{it} + \beta_3 OYearOne_{it} + \beta_4 OYearTwo_{it} + \beta_5 CHNPL2_{it} + \beta_6 CHNPL3_{it} + \beta_7 NPL2_{it\text{-}1} + \beta_8 NPL3_{it\text{-}1} + \beta_9 SIZE_{it\text{-}1} + \beta_{10} AdjCAP_{it\text{-}1} + \beta_{11} EBTP_{it} + \beta_{12} CHEBTP_{it+1} + \beta_{13} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (10)$$

Table 5 reports the results of the decomposition of *LLP*. Panel A of Table 5 for *GLLP* shows that the coefficient of *OYearTwo* (β_4) has a significantly negative sign and is lower than that of *IYearTwo* (β_2). The results are consistent with the primary results and support our hypothesis H2b, but *FYearTwo* (β_4) has no significant coefficient. The likely reason is that reversing the general allowance for loan losses by use is very rare (Umezawa 2016). Panel B of Table 5 for *SLLP* illustrates that the results support our hypothesis H2b more than *GLLP.* The coefficient of *FYearTwo* (β_4) is significantly lower than that of *VYearTwo* (β_2) in Column [2] as well as *IYearTwo* in Column [3]. These results imply that incoming top executives following forced turnover (outside succession) in the second year exhibit lower SLLP than those following voluntary turnover (inside succession) and those for firms with no turnover. This supports H2b and H2c and is consistent with the results in Table 4. It appears that the findings for SLLP have a greater influence on the overall results for LLP and outweigh the effects of GLLP.

[Insert Table 5 here]

5. Additional analyses and sensitivity checks

5.1. Additional analysis

We conduct several additional analyses to gain a better understanding of incoming top executives' comprehensive earnings management. First, we investigate two types of real manipulation associated with management turnover in the banking industry. One is commissions and fees, and the other is gains and losses from security sales. We employed Ertan's (2022) model to test for discretionary commissions and fee income. Ertan (2022) finds that banks that slightly exceed earnings benchmarks report significantly higher origination fees for syndicated loans.[15] For Japanese banks, mutual fund sales commissions and fees are important sources of revenue and origination fees. However, the annual

[15] Ozili (2017) and Ozili and Outa (2019) also examined commissions and fees as real earnings management.

reports of Japanese banks do not disclose each commission or fee separately. Thus, we use "Other Fees and Commissions (income)" and "Other Fees and Commissions (expense)" in the income statement as commission and fee-related income affected by real manipulation.[16,17] Equation (12) is the baseline model before the inclusion of management turnover variables by Ertan (2022). *Fee1*, the independent variable, represents "Other Fees and Commissions (income)," and *Fee2* is *Fee1* minus the expenses for "Other Fees and Commissions (expense)." Both variables were divided by total assets. The control variables are largely the same as those in Ertan (2022) and include a one-year lag, except for the bank and year-fixed effects. We also include the same turnover variables as those in equations (2)–(4).

$$Fee1_{it}\ (Fee2_{it}) = \beta_0 + \beta_1 log(Size)_{it\text{-}1} + \beta_2 Leverage_{it\text{-}1} + \beta_3 Profitability_{it\text{-}1} + \beta_4 LoanIntensity_{it\text{-}1} + \beta_5 GrowthinNPLs_{it\text{-}1} + \beta_6 LoanLossReserve_{it\text{-}1} + \beta_7 AgriculturalLoans_{it\text{-}1} + \beta_8 CommercialandIndustrialLoans_{it\text{-}1} + \beta_9 RealEstateLoans_{it\text{-}1} + \beta_{10} IndividualLoans_{it\text{-}1} + \beta BankFixed\ Effect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (12)$$

Table 6 shows the regression results. When *Fee1* is the independent variable, none of the coefficients of the test variables is statistically significant. In contrast, when using *Fee2*, the coefficient of *OYearTwo* (β_4) is significantly positive and larger than that of *VYearTwo* (β_2). This evidence indicates that incoming top executives may engage in earnings management to boost earnings in the second year following outside succession.

[Insert Table 6 here]

The second additional test is the relationship between gains and losses from securities sales and management turnovers. Gains and losses from securities sales have been examined as managerial discretion in banking studies (e.g., Beatty et al. 2002). We also utilize Ertan's (2022) model for gains and losses from securities sales, which proposes the same model for commissions and fees. Equation (13) is the baseline model before including the management turnover variables. The independent variables are the same as those in equation (12).

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[16] "Other Fees and Commissions (income)" includes agency loans accepted as compensation for acceptances and guarantees, and guarantee charges received from the guarantee of obligation. It represents fees and commissions other than "Fees and Commissions on Domestic and Foreign Exchanges", which is Commission received from domestic exchange business (includes inter-bank fees). The commission received from foreign exchange business includes a guarantee charge received related to foreign exchange transactions. "Other Fees and Commissions (expense)" includes guarantee charges paid for the guarantee of payment and guarantee fee paid to credit supplementation system for small and medium-sized enterprises. Costs paid to receive other services. It represents Fees and commissions paid for a portion other than "Fees and Commissions on Domestic and Foreign Exchanges", which is Commission paid to other consignee banks for domestic exchange business (includes inter-bank fees). Commission paid for foreign exchange business. Fees and commissions and related expenses are included in these items.

[17] Fukaya (2022) reported the manipulation of commissions and fees for banks that meet and slightly exceed the earnings benchmarks. He uses "Fees and Commissions (income)" to capture a wide range of real earnings management.

$$SGL_{it}\ (SGL_{it} \geq 0 \text{ or } SGL_{it} < 0) = \beta_0 + \beta_1 log(Size)_{it\text{-}1} + \beta_2 Leverage_{it\text{-}1} + \beta_3 Profitability_{it\text{-}1} + \beta_4 LoanIntensity_{it\text{-}1} + \beta_5 GrowthinNPLs_{it\text{-}1} + \beta_6 LoanLossReserve_{it\text{-}1} + \beta_7 AgriculturalLoans_{it\text{-}1} + \beta_8 CommercialandIndustrialLoans_{it\text{-}1} + \beta_9 RealEstateLoans_{it\text{-}1} + \beta_{10} IndividualLoans_{it\text{-}1} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (13)$$

SGL denotes the gains and losses from security sales divided by the total assets. In addition to *SGL*, *SGL* is divided into non-negative *SGL* (*SGL* $\geqq$ 0) and negative *SGL* (*SGL* $<$ 0); the former represents income-increasing earnings management, and the latter represents income-decreasing earnings management through gains and losses from security sales.

Table 7 reports the relationship between gains and losses from securities sales and management turnover. When the independent variable is *SGL*, none of the turnover variables are statistically significant. However, when *SGL* is non-negative, the coefficient of *VYearTwo* (β_2) is significantly positive and larger than the coefficient of *FYearTwo* (β_4) in Column [5]. In Column [6], the coefficient of *IYearTwo* (β_2) is insignificant but is significantly larger than *OYearTwo* (β_4). These findings suggest that when the bank has an unrealized gain from securities, incoming top executives following voluntary turnover or inside succession tend to boost earnings in the second year of their career, in contrast to the results for *LLP*. The associations between voluntary turnover and inside succession and *LLP* are interesting. It should be noted that the non-negative *SGL* (*SGL* $\geqq$ 0) subsample are limited to banks that report gains from security sales. Therefore, they do not mean that incoming top executives following forced turnover or outside succession reduce earnings through losses from security sales in the second year. Thus, the results are not inconsistent with H2b and H2c.

[Insert Table 7 here]

When negative *SGL* is the independent variable in Columns [8] and [9], the coefficients of *FYearOne* (β_2) and *OyearTwo* (β_4) are significantly positive and greater than those of *VyearOne* and *IyearTwo*, respectively. The results of *OyearTwo* suggest that incoming top executives following a forced turnover and outside succession tend not to realize losses from securities to maintain earnings in the second year. This result is consistent with those of H2b and H2c. The result of *FyearOne* also indicates that incoming top executives following forced turnover do not attempt to reduce earnings in the first year, which is consistent with the primary results.

For the third additional test, we incorporate four types of management turnover in line with Choi et al. (2014). We add eight turnover variables to equation (1). For the eight variables, "*VI*," "*VO*," "*FI*," and

"*FO"* attached before *YearOne* or *YearTwo* means voluntary turnover and inside succession, voluntary turnover and outside succession, forced turnover and inside succession, and forced turnover and outside succession, respectively.

$$LLP_{it} = \beta_0 + \beta_1 VIYearOne + \beta_2 VIYearTwo + \beta_3 VOYearOne + \beta_4\ VOYearTwo + \beta_5 FIYearOne + \beta_6 FIYearTwo + \beta_7 FOYearOne + \beta_8 FOYearTwo + \beta_9 CHNPL0_{it} + \beta_{10} CHNPL1_{it} + \beta_{11} CHNPL2_{it} + \beta_{12} CHNPL3_{it} + \beta_{13} NPL0_{it\text{-}1} + \beta_{14} NPL1_{it\text{-}1} + \beta_{15} NPL2_{it\text{-}1} + \beta_{16} NPL3_{it\text{-}1} + \beta_{17} SIZE_{it\text{-}1} + \beta_{18} AdjCAP_{it\text{-}1} + \beta_{19} EBTP_{it} + \beta_{20} CHEBTP_{it+1} + \beta_{21} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (14)$$

Only the coefficient of *FOYearTwo* (β_8) was significantly negative. These findings imply that forced turnover and external succession strongly affect LLP.

Finally, we examine the relationship between LLP immediately before management turnover and the type of turnover. Dechow and Sloan (1991) demonstrate that CEOs in the year before turnover reduce research, development, and advertising expenses. Pourciau (1993) hypothesizes that outgoing CEOs engage in earnings management to increase earnings before forced turnover.

At the time of the outgoing top executives' final year, they may not know whether turnover will occur, whether it will be forced or voluntary, or whether it will be an inside or outside succession. Therefore, we did not develop a related hypothesis regarding the behavior of outgoing top executives because of this forward-looking problem. While the behavior of outgoing top executives has not been examined in previous studies on management turnover in the banking industry, some studies on non-financial firms hypothesize and test the relationship between the position of the outgoing CEO after turnover and the background of the incoming CEO and earnings management (e.g., Choi et al. 2014).

The outgoing top executive in the final year is incentivized to boost earnings management for his/her compensation or career after the turnover, regardless of whether the succession is voluntary or forced and whether the successor is an insider or an outsider. From the perspective of economic rationality, it is unlikely that the top executive engages in income-decreasing earnings management.

We add *FinalYear,* which represents the final year of tenure, to equation (2); *VFinalYear* and *FFinalYear* for voluntary and forced turnover to equation (3); and *IFinalYear* and *OFinalYear* for inside and outside succession to equation (4), assuming that outgoing top executives know not only their retirement but also their future position.

$$LLP_{it} = \beta_0 + \beta_1 FinalYear_{it} + \beta_2 YearOne_{it} + \beta_3 YearTwo_{it} + \beta_4 CHNPL0_{it} + \beta_5 CHNPL1_{it} + \beta_6 CHNPL2_{it} + \beta_7 CHNPL3_{it} + \beta_8 NPL0_{it\text{-}1} + \beta_9 NPL1_{it\text{-}1} + \beta_{10} NPL2_{it\text{-}1} + \beta_{11} NPL3_{it\text{-}1} + \beta_{12} SIZE_{it\text{-}1} + \beta_{13} AdjCAP_{it\text{-}1} + \beta_{14} EBTP_{it} + \beta_{15} CHEBTP_{it+1} + \beta_{16} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon \quad (15)$$

$$LLP_{it} = \beta_0 + \beta_1 VFinalYear_{it} + \beta_2 VYearOne_{it} + \beta_3 VYearTwo_{it} + \beta_4 FFinalYear_{it} + \beta_5 FYearOne + \beta_6 FYearTwo + \beta_7 CHNPL0_{it} + \beta_8 CHNPL1_{it} + \beta_9 CHNPL2_{it} + \beta_{10} CHNPL3_{it} + \beta_{11} NPL0_{it\text{-}1} + \beta_{12} NPL1_{it\text{-}1} + \beta_{13} NPL2_{it\text{-}1} + \beta_{14} NPL3_{it\text{-}1} + \beta_{15} SIZE_{it\text{-}1} + \beta_{16} AdjCAP_{it\text{-}1} + \beta_{17} EBTP_{it} + \beta_{18} CHEBTP_{it+1} + \beta_{19} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (16)$$

$$LLP_{it} = \beta_0 + \beta_1 IFinalYear + \beta_2 IYearOne_{it} + \beta_3 IYearTwo_{it} + \beta_4 OFinalYear_{it} + \beta_5 OYearOne_{it} + \beta_6 OYearTwo_{it} + \beta_7 CHNPL0_{it} + \beta_8 CHNPL1_{it} + \beta_9 CHNPL2_{it} + \beta_{10} CHNPL3_{it} + \beta_{11} NPL0_{it\text{-}1} + \beta_{12} NPL1_{it\text{-}1} + \beta_{13} NPL2_{it\text{-}1} + \beta_{14} NPL3_{it\text{-}1} + \beta_{15} SIZE_{it\text{-}1} + \beta_{16} AdjCAP_{it\text{-}1} + \beta_{17} EBTP_{it} + \beta_{18} CHEBTP_{it+1} + \beta_{19} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \quad (17)$$

Table 8 reports the regression results. In Column [3], the coefficient of *OFinalYear* (β_4) is significantly negative and lower than that of *IFinalYear* (β_2), but *FinalYear* (β_1) and other final year variables do not have a significant coefficient in Columns [1] to [3]. The results suggest that the outgoing top executives employ income-decreasing earnings management before the outside succession. However, this is the benefit of the incoming top executive, who has the incentive to improve earnings in the early years of their tenure but does not appear to be economically rational behavior in terms of the outgoing top executive's career concerns. Forced turnover with low performance will likely limit the outgoing top executives to their future job prospects. Moreover, the results are not consistent with the horizon problem of the departing top executives. Given the absence of prior literature documenting similar findings, this behavior may be specific to Japanese banks.

[Insert Table 8 here]

5.2. Robustness checks

Five robustness checks were conducted. In line with recent studies on management turnover in Japan, we assume in our main analysis that when the top executive's promotion occurs within four years of joining the bank, the incoming top executive is an insider. Changing this period to three years, as in Kang and Shivdasani (1995), did not substantially alter the primary results.

Second, we include voluntary turnover in cases where outgoing top executives remain on the board, except for the position of the chairman or vice chairman (e.g., Kang and Shivdasani 1995; Miyajima et al. 2018). This does not affect the results of the main findings.[18]

Third, the variables in equation (1) are standardized by lagged total assets following Umezawa (2016), whereas the model developed by Beatty and Liao (2014) uses lagged total loans instead. Therefore, we replace the standardized variable with lagged total loans. The results are robust to the use of total loans for standardization.

Fourth, Beatty and Liao (2014) argued that it is less comfortable to include changes in NPLs and the level of (lagged) NPLs in the same regression. Hence, we exclude the level of lagged NPLs and add the one-year-ahead change in NPLs, the lagged change in NPLs, and the two-year-lagged change in NPLs, in line with their argument and Beatty and Liao (2014). The baseline regression equation is as follows: we add a variable for management turnover.

$$\begin{aligned} LLP_{it} = {} & \beta_0 + \beta_1 CHNPL0_{it+1} + \beta_2 CHNPL1_{it+1} + \beta_3 CHNPL2_{it+1} + \beta_4 CHNPL3_{it+1} + \beta_5 CHNPL0_{it} + \\ & \beta_6 CHNPL1_{it} + \beta_7 CHNPL2_{it} + \beta_8 CHNPL3_{it} + \beta_9 CHNPL0_{it-1} + \beta_{10} CHNPL1_{it-1} + \beta_{11} CHNPL2_{it-1} + \\ & \beta_{12} CHNPL3_{it-1} + \beta_{13} CHNPL0_{it-1} + \beta_{14} CHNPL1_{it-2} + \beta_{15} CHNPL2_{it-2} + \beta_{16} CHNPL3_{it-2} + \beta_{17} SIZE_{it-1} + \\ & \beta_{18} AdjCAP_{it-1} + \beta_{19} EBTP_{it} + \beta_{20} CHEBTP_{it+1} + \beta_{21} DNEGEBTP_{it} + \beta BankFixedEffect_{it} + \\ & \beta YearFixedEffect_{it} + \varepsilon_{it} \end{aligned} \quad (18)$$

These results were similar to those of the primary ones. Our results are robust to dropping the NPL-level variables and adding the future and past variables to the change in NPLs.

Finally, we replaced the original model with Bushman and Williams's (2012) model. They estimate discretionary LLP with earnings management (income-smoothing) variables using banks across 27 countries, including Japan. We exclude GDP from their model because our model already includes year fixed effects. The baseline model for these robustness checks is as follows:[19] We included management turnover variables.

$$\begin{aligned} LLPBL_{it} = {} & \beta_0 + \beta_1 CHNPLBL_{it+1} + \beta_2 CHNPLBL_{it-1} + \beta_3 CHNPLBL_{it-1} + \beta_4 CHNPLBL_{it-2} + \beta_5 SIZE_{it-1} + \\ & \beta_6 AdjCAP_{it-1} + \beta_7 EBTP_{it} + \beta BankFixedEffect_{it} + \beta YearFixedEffect_{it} + \varepsilon_{it} \end{aligned} \quad (19)$$

[18] In addition to the first and second robustness checks, the main results remain largely consistent when using only the bank year with both *YearOne* and *YearTwo* for the management turnover sample.

[19] *AdjCAP* is the book value of equity reported at the end of the period, scaled by total assets at end of the period in Bushman and Williams (2012). We replace it with *AdjCAP* to adjust each bank's capital adequacy ratio.

We replicated the primary results using the same approach as that of Bushman and Williams (2012).

6. Conclusion

This study examines discretionary LLP in the years following management turnover in the Japanese banking industry. Categorizing management turnover into voluntary and forced turnover and inside and outside succession, we find that incoming top executives following a forced turnover and outside succession inflate earnings in the second year of their tenure through LLP. These findings suggest that incoming top executives attempt to demonstrate a positive effect on their capabilities by increasing earnings. This study's evidence differs from previous studies that showed a "big bath" in the first year. Additionally, this study identifies that banks that have an outside succession subsequently occurring in the following year have a large amount of LLP in the year before the turnover. Further investigation is necessary to understand this behavior, which does not appear economically reasonable.

We also shed light on commissions and fees as well as gains and losses from security sales as a means of earnings management. We find evidence suggesting that incoming top executives use gains from security sales, commissions, and fees to contribute to the increase in earnings in the second year of their tenure after forced turnover and outside succession. The relationship between commissions, fees, and management turnover has not yet been documented in the literature.

Given that Japan is characterized as a country with a prevalent indirect financial system and significant economic importance of banks, management policies change due to management turnover significantly impacting the economy through financial positions and lending policies. Unlike non-financial firms, banks have limited earnings management capabilities and are subject to scrutiny by regulatory authorities and central banks. In this context, providing evidence that incoming top executives simultaneously engage in accounting discretion and real activities is of considerable importance in the existing literature.

Appendix A. LLP estimation model in Umezawa (2016)

The derivation of Umezawa's (2016) LLP estimation model consists of the following three steps: (i) Construct two models by dividing the allowance for loan losses (*LLA*) into general allowance for loan losses (*GLLA*) and specific allowance for loan losses (*SLLA*). (ii) The relationship between the current period's GLLP (SLLP) and the current and prior periods' GLLA (SLLA), given the reversal method. (iii) The models for GLLP and SLLP obtained in (ii) are combined.

(i) Umezawa (2016) constructs models for the GLLA and SLLA using the loan categories defined in the FRA. Japanese banks calculate the amount of GLLA and SLLA according to the borrower and

loan categories in the Inspection Manual self-assessment. The Inspection Manual was repealed in December 2019, and the framework with allowances and write-offs through self-assessment remained (FSA 2019). However, the number of loans in each self-assessment category was not disclosed to the public. Japanese banks must disclose loan amounts under the FRA and the Banking Law (risk-managed credit amounts). We employ the LLP model using loan categories in the FRA following Umezawa (2016) because the loan categories correspond highly with the borrower classifications in the self-assessment. Specifically, among the four categories of FRA loans, "Normal credits (*NPL0*)" and "Needs special attention credits (*NPL1*)" are subject to the general allowance, while "Doubtful credits (*NPL2*)" and "Bankrupt or de facto bankrupt credits (*NPL3*)" are subject to the specific allowance. Equations (A1) and (A2) represent the expected model of GLLA and SLLA, respectively, using this relationship, where i is the bank, t is the year, g is the general loan loss allowance, and s is the specific loan loss allowance.

$$GLLA_{it} = \alpha_0 + \alpha_1 NPL0_{it} + \alpha_2 NPL1_{it} + \varepsilon_{git} \quad \text{(A1)}$$

$$SLLA_{it} = \beta_0 + \beta_1 NPL2_{it} + \beta_2 NPL3_{it} + \varepsilon_{sit} \quad \text{(A2)}$$

(ii) Assuming the reversal method, we formulate the relationship between the LLP for the current period and the LLA for the current and prior periods. LLP is calculated as the difference between the current period's LLA (LLA_t) and the residual of the prior period's LLA after accounting for direct write-offs and loan sales $[(1 - \omega_t) \times LLA_{t-1}]$, where $\omega_t\ (0 \leq \omega_t < 1)$ is the ratio of the number of reversals from direct write-offs and loan sales in period t to the LLA in the prior period. Based on the above, GLLP and SLLP are described by equations (A3) and (A4), respectively.

$$GLLP_{it} = GLLA_{it} - (1 - \omega_{git})\ GLLA_{it-1} \quad \text{(A3)}$$

$$SLLP_{it} = SLLA_{it} - (1 - \omega_{sit})\ SLLA_{it-1} \quad \text{(A4)}$$

Substituting equations (A1) and (A2) into equations (A3) and (A4) yields equations (A5) and (A6). *CHNPL0, CHNPL1, CHNPL2,* and *CHNPL3* indicate the changes in *NPL0, NPL2, NPL2,* and *NPL3,* respectively.

$$\begin{aligned} GLLP_{it} &= \alpha_0 + \alpha_1 NPL0_{it} + \alpha_2 NPL1_{it} \\ &\quad - (1 - \omega_{git})\ (\alpha_0 + \alpha_1 NPL0_{it-1} + \alpha_2 NPL1_{it-1}) + \varepsilon_{git} - (1-\omega_{git})\ \varepsilon_{git-1} \\ &= \delta_0 + \delta_1 CHNPL0_{it} + \delta_2 CHNPL1_{it} + \delta_3 NPL0_{it-1} + \delta_4 NPL1_{it-1} + u_{git} \end{aligned} \quad \text{(A5)}$$

$$\begin{aligned} SLLP_{it} &= \beta_0 + \beta_1 NPL2_{it} + \beta_2 NPL3_{it} \\ &\quad - (1-\omega_{sit})\ (\beta_0 + \beta_1 NPL2_{it-1} + \beta_2 NPL3_{it-1}) + \varepsilon_{sit} - (1-\omega_{sit})\ \varepsilon_{sit-1} \end{aligned}$$

$$= \gamma_0 + \gamma_1 CHNPL2_{it} + \gamma_2 CHNPL3_{it} + \gamma_3 NPL2_{it\text{-}1} + \gamma_4 NPL3_{it\text{-}1} + u_{sit} \quad \text{(A6)}$$

(iii) Equation (A7), which is an estimation model of LLP, is derived by combining equation (A5) for the GLLP and equation (A6) for the SLLP.

$$LLP_{it} = (\delta_0 + \gamma_0) + \delta_1 CHNPL0_{it} + \delta_2 CHNPL1_{it} + \gamma_1 CHNPL2_{it} + \gamma_2 CHNPL3_{it} + \delta_3 NPL0_{it\text{-}1} + \delta_4 NPL1_{it\text{-}1} + \gamma_3 NPL2_{it\text{-}1} + \gamma_4 NPL3_{it\text{-}1} + (u_{git} + u_{sit}) \quad \text{(A7)}$$

A positive coefficient of the change in nonperforming loans during the period ($CHNPL_t$) implies an increase in credit risk. The effect of reversals due to direct write-offs and sales of loans during period t is captured by the variable of the amount of normal and nonperforming loans at the end of the previous period (NPL_{t-1}).

Appendix B. Definition of variables

Definitions of variables

LLP	=	Loan loss provisions (LLP) divided by lagged total assets. When reversal of allowance for loan losses occurs, this value is negative.
GLLP	=	General loan loss provisions (GLLP) divided by lagged total assets. GLLP is change in general allowance for loan losses. When reversal of allowance for loan losses occurs, this value is negative.
SLLP	=	Specific loan loss provisions (SLLP) divided by lagged total assets. SLLP is the net transfer to the specific allowance for loan losses. When reversal of allowance for loan losses occurs, this value is negative.
YearOne	=	1 if the bank-year is the first year following management turnover, 0 otherwise.
YearTwo	=	1 if the bank-year is the second year following management turnover, 0 otherwise.
VYearOne	=	1 if the bank-year is the first year following voluntary turnover, 0 otherwise.
VYearTwo	=	1 if the bank-year is the second year following voluntary turnover, 0 otherwise.
FYearOne	=	1 if the bank-year is the first year following forced turnover, 0 otherwise.
FYearTwo	=	1 if the bank-year is the second year following forced turnover, 0 otherwise
IYearOne	=	1 if the bank-year is the first year following inside succession, 0 otherwise.
IYearTwo	=	1 if the bank-year is the second year following inside succession, 0 otherwise.
OYearOne	=	1 if the bank-year is the first year following outside succession, 0 otherwise

OYearTwo	=	1 if the bank-year is the second year following outside succession, 0 otherwise.
CHNPL0	=	Change in normal (non-classified) credits divided by lagged total assets.
CHNPL1	=	Change in needs special attention credits divided by lagged total assets.
CHNPL2	=	Change in doubtful credits divided by lagged total assets.
CHNPL3	=	Change in bankrupt or de facto bankrupt credits divided by lagged total assets.
NPL0	=	Normal (non-classified) credits divided by lagged total assets.
NPL1	=	Needs special attention credits divided by lagged total assets.
NPL2	=	Doubtful credits divided by lagged total assets.
NPL3	=	Bankrupt or de facto bankrupt credits divided by lagged total assets.
AdjCAP	=	Capital adequacy ratio minus benchmark ratio. The benchmark ratio is 8 percent for international and 4 percent for domestic banks.
EBTP	=	Net income before tax plus loan loss provisions (Earnings before tax + LLP) divided by lagged total assets.
CHEBTP	=	Change in *EBTP* between the next year and the current year.
DNEGEBTP	=	1 if *EBTP* is less than 0, 0 otherwise.
BankFixedEffect	=	Bank fixed effects.
YearFixedEffect	=	Year fixed effects.
Additional analysis		
Fee1	=	Other Fees and Commissions (income). "Other Fees and Commissions (income)" includes agency loans accepted as compensation for acceptances and guarantees, guarantee charge received from guarantee of obligation. Includes agency loans accepted as compensation for acceptances and guarantees, guarantee charge received from guarantee of obligation.
Fee2	=	"Other Fees and Commissions (income)" minus "Other Fees and Commissions (expense)" divided by lagged total assets. "Other Fees and Commissions (expense)" includes guarantee charge paid for guarantee of payment and guarantee fee paid to credit supplementation system for small and medium-sized enterprise. Costs paid to receive other services.
SGL	=	Gains and losses from security sales divided by lagged total assets. Specifically, gains and losses from security sales = (gain on sales of stocks and other securities + gains on sales of bonds) – (losses on sales of stocks and other securities + losses on devaluation of stocks and other securities + loss on sales of bonds + loss on devaluation of bonds).
log(Size)	=	Natural logarithm of total assets.

Leverage	=	The ratio of total debt divided by total assets.
Profitability	=	Net income divided by lagged total assets.
LoanIntensity	=	Total loan divided by total assets.
GrowthinNPL	=	Nonperforming loan divided by total loans.
LoanLossReserve	=	Loan loss reserves divided by total loans.
AgriculturalLoans	=	Agricultural loans divided by total loans (Fishery, Agriculture, Forestry)
CommercialandIndustrialLoans	=	Commercial and industrial loans divided by total loans (Manufacturing, Mining, Construction, Wholesale and Retail trade, Finance and Insurance, Transportation and Communication Services, Electric Power, Gas, Water Utility, and Services).
RealEstateLoans	=	Real-estate loans divided by total loans (Real Estate).
IndividualLoans	=	Loans to individuals divided by total loans (Individual and Others).
FinalYear	=	1 if the bank-year is the year prior to management turnover, 0 otherwise.
VFinalYear	=	1 if the bank-year is the first year prior to voluntary turnover, 0 otherwise.
FFinalYear	=	1 if the bank-year is the first year prior to forced turnover, 0 otherwise.
IFinalYear	=	1 if the bank-year is the first year prior to inside succession, 0 otherwise.
OFinalYear	=	1 if the bank-year is the first year prior to outside succession, 0 otherwise.
VIYearOne	=	1 if the bank-year is the first year following voluntary turnover and inside succession, 0 otherwise.
VIYearTwo	=	1 if the bank-year is the second year following voluntary turnover and inside succession, 0 otherwise.
VOYearOne	=	1 if the bank-year is the first year following voluntary turnover and outside succession, 0 otherwise.
VOYearTwo	=	1 if the bank-year is the second year following voluntary turnover and outside succession, 0 otherwise.
FIYearOne	=	1 if the bank-year is the first year following forced turnover and inside succession, 0 otherwise.
FIYearTwo	=	1 if the bank-year is the second year following forced turnover and inside succession, 0 otherwise.
FOYearOne	=	1 if the bank-year is the first year following forced turnover and outside succession, 0 otherwise.
FOYearTwo	=	1 if the bank-year is the second year following forced turnover and outside succession, 0 otherwise.
Robustness checks		
LLPBL	=	Loan loss provisions (LLP) divided by lagged total loans.
CHNPL	=	Nonperforming loans divided by lagged total loans.

EBTPBL	=	Net income before tax plus loan loss provisions divided by lagged total loans.

Industries in parentheses are based on the classification in the Nikkei NEEDS-FinancialQUEST.

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Table 1. Descriptive statistics

Variables	Mean	p25	median	p75	S.D.	N
YearOne	0.14034	0	0	0	0.34746	1,418
YearTwo	0.13399	0	0	0	0.34076	1,418
VYearOne	0.10226	0	0	0	0.30309	1,418
VYearTwo	0.09520	0	0	0	0.29360	1,418
FYearOne	0.03808	0	0	0	0.19146	1,418
FYearTwo	0.03879	0	0	0	0.19316	1,418
IYearOne	0.11425	0	0	0	0.31822	1,418
IYearTwo	0.10649	0	0	0	0.30857	1,418
OYearOne	0.02609	0	0	0	0.15947	1,418
OYearTwo	0.02750	0	0	0	0.16360	1,418
LLP	0.00170	0.00014	0.00076	0.00216	0.00280	1,418
GLLP	-0.00008	-0.00050	-0.00011	0.00023	0.00100	1,418
SLLP	0.00179	0.00031	0.00098	0.00236	0.00237	1,418
CHNPLU0	0.01228	0.00103	0.01351	0.02471	0.02011	1,418
CHNPLU1	-0.00023	-0.00133	-0.00015	0.00044	0.00326	1,418
CHNPLU2	-0.00035	-0.00172	-0.00041	0.00105	0.00388	1,418
CHNPLU3	-0.00045	-0.00125	-0.00034	0.00037	0.00257	1,418
NPLU0	0.64984	0.60086	0.65380	0.69919	0.06561	1,418
NPLU1	0.00693	0.00217	0.00467	0.00969	0.00656	1,418
NPLU2	0.01549	0.00962	0.01351	0.01934	0.00850	1,418
NPLU3	0.00799	0.00331	0.00604	0.01064	0.00641	1,418
SIZE	14.64998	14.14957	14.70731	15.20850	0.79637	1,418
AdjCAP	0.05827	0.04600	0.05695	0.06920	0.01829	1,418
EBTP	0.00401	0.00276	0.00402	0.00559	0.00280	1,418
CHEBTP	0.00001	-0.00096	0.00006	0.00087	0.00310	1,418
DNEGEBTP	0.49718	0	0	1	0.50017	1,418

Variable definitions are in Appendix B.

Table 2. LLP by four management turnover types

		Total	Voluntary	Forced	Inside	Outside
First year	Mean	0.00195	0.00179	0.00238	0.00171	0.00300
	Median	0.00075	0.00078	0.00074	0.00069	0.00151
	N	199	145	54	162	37
Second Year	Mean	0.00147	0.00156	0.00126	0.00142	0.00169
	Median	0.00086	0.00090	0.00062	0.00076	0.00113
	N	190	135	55	151	39

The definition of LLP is in Appendix B. "First year" ("Second year") means the first (second) year of the CEO's tenure. "Voluntary," "Forced," "Inside," and "Outside" represent the bank-year after voluntary turnover, forced turnover, inside succession, and inside succession, respectively.

Table 3. Pearson correlation matrix

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	*YearOne*	1												
[2]	*YearTwo*	-0.1589	1											
[3]	*VYearOne*	0.8353	-0.1328	1										
[4]	*VYearTwo*	-0.1311	0.8247	-0.1095	1									
[5]	*FYearOne*	0.4925	-0.0783	-0.0672	-0.0645	1								
[6]	*FYearTwo*	-0.0812	0.5107	-0.0678	-0.0652	-0.0400	1							
[7]	*IYearOne*	0.8889	-0.1413	0.7715	-0.1165	0.3919	-0.0721	1						
[8]	*IYearTwo*	-0.1395	0.8777	-0.1165	0.7682	-0.0687	0.3806	-0.1240	1					
[9]	*OYearOne*	0.4051	-0.0644	0.2806	-0.0531	0.2910	-0.0329	-0.0588	-0.0565	1				
[10]	*OYearTwo*	-0.0679	0.4275	-0.0568	0.2687	-0.0335	0.3459	-0.0604	-0.0581	-0.0275	1			
[11]	*LLP*	0.0367	-0.0310	0.0116	-0.0157	0.0483	-0.0309	0.0020	-0.0341	0.0761	-0.0003	1		
[12]	*GLLP*	0.0335	-0.0517	0.0236	-0.0187	0.0235	-0.0628	0.0308	-0.0155	0.0115	-0.0784	0.5710	1	
[13]	*SLLP*	0.0296	-0.0177	0.0059	-0.0124	0.0443	-0.0124	-0.0113	-0.0370	0.0870	0.0328	0.9390	0.2891	1
[14]	*CHNPLU0*	-0.0281	-0.0014	0.0077	-0.0286	-0.0631	0.0410	-0.0060	-0.0160	-0.0493	0.0273	-0.4614	-0.2244	-0.4591
[15]	*CHNPLU1*	-0.0151	-0.0017	-0.0280	0.0401	0.0169	-0.0639	-0.0061	0.0251	-0.0209	-0.0508	0.2108	0.3976	0.0945
[16]	*CHNPLU2*	0.0049	-0.0128	0.0131	0.0114	-0.0118	-0.0399	-0.0003	-0.0190	0.0113	0.0091	0.3392	0.2536	0.3232
[17]	*CHNPLU3*	-0.0241	0.0031	-0.0051	0.0207	-0.0357	-0.0261	-0.0163	0.0303	-0.0201	-0.0507	0.2472	0.1889	0.2183
[18]	*NPLU0*	-0.0044	-0.0259	0.0015	-0.0139	-0.0104	-0.0244	-0.0530	-0.0686	0.0961	0.0756	0.1806	0.1035	0.1752
[19]	*NPLU1*	-0.0200	-0.0176	-0.0382	-0.0438	0.0242	0.0355	-0.0309	-0.0376	0.0181	0.0342	0.3849	-0.0440	0.4610
[20]	*NPLU2*	0.0032	0.0241	-0.0632	-0.0367	0.1059	0.0984	-0.0303	-0.0155	0.0676	0.0794	0.2420	-0.0890	0.3122
[21]	*NPLU3*	0.0127	0.0167	-0.0227	-0.0174	0.0589	0.0558	-0.0435	-0.0364	0.1145	0.1034	0.4541	0.0253	0.5290
[22]	*SIZE*	0.0087	-0.0021	0.0440	0.0412	-0.0537	-0.0665	0.0554	0.0531	-0.0916	-0.1047	-0.1645	0.0069	-0.2016
[23]	*AdjCAP*	0.0123	0.0113	0.0482	0.0526	-0.0539	-0.0601	0.0618	0.0651	-0.0965	-0.0993	-0.2708	-0.0183	-0.3052
[24]	*EBTP*	-0.0125	-0.0157	-0.0124	-0.0004	-0.0030	-0.0272	-0.0172	-0.0317	0.0071	0.0269	0.0324	-0.1023	0.0611
[25]	*CHEBTP*	0.0048	0.0069	0.0147	0.0114	-0.0145	-0.0052	-0.0026	0.0055	0.0156	0.0040	0.0596	0.0528	0.0604
[26]	*DNEGBTP*	0.0206	0.0229	0.0275	0.0283	-0.0062	-0.0025	0.0464	0.0271	-0.0477	-0.0034	0.0655	0.0785	0.0546

		[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]
[14]	*CHNPLU0*	1												
[15]	*CHNPLU1*	-0.2875	1											
[16]	*CHNPLU2*	-0.2265	0.1491	1										
[17]	*CHNPLU3*	-0.1086	0.0571	0.0537	1									
[18]	*NPLU0*	-0.0204	0.0731	0.0547	0.0613	1								
[19]	*NPLU1*	-0.2072	-0.2375	-0.0671	-0.1278	0.0915	1							
[20]	*NPLU2*	-0.2408	0.0005	-0.3427	-0.1206	0.0638	0.4653	1						
[21]	*NPLU3*	-0.3580	0.0858	-0.0376	-0.3022	0.1806	0.5623	0.5751	1					
[22]	*SIZE*	0.1590	0.0125	-0.0059	0.0261	-0.2428	-0.1645	-0.3154	-0.4357	1				
[23]	*AdjCAP*	0.1729	-0.0274	0.0247	0.0733	-0.2840	-0.3951	-0.3218	-0.3935	0.2381	1			
[24]	*EBTP*	0.1102	-0.0461	-0.0103	-0.1251	0.1301	0.1432	-0.0321	0.0587	0.1643	-0.0183	1		
[25]	*CHEBTP*	-0.0021	-0.0776	-0.0953	0.0569	-0.0101	0.0874	0.0692	0.0397	0.0121	-0.0374	-0.5445	1	
[26]	*DNEGBTP*	-0.0710	0.0331	-0.0002	0.0733	0.0061	-0.0509	0.0112	-0.0022	-0.0477	0.0248	-0.3598	0.1379	1

Variable definitions are in Appendix B. N = 1,418.

Table 4. Management turnover effects on LLP

	[1] *LLP*	[2] *LLP*	[3] *LLP*
YearOne	0.00029		
	(1.510)		
YearTwo	-0.00020		
	(-1.493)		
VYearOne		0.00029	
		(1.214)	
VYearTwo		-0.00012	
		(-0.733)	
FYearOne		0.00030	
		(0.975)	
FYearTwo		-0.00038**	
		(-2.175)	
IYearOne			0.00031
			(1.566)
IYearTwo			-0.00007
			(-0.466)
OYearOne			0.00021
			(0.529)
OYearTwo			-0.00068***
			(-3.545)
CHNPLU0	-0.01564***	-0.01549***	-0.01531***
	(-3.881)	(-3.827)	(-3.839)
CHNPLU1	0.12954**	0.12910**	0.12699**
	(2.791)	(2.745)	(2.782)
CHNPLU2	0.24317***	0.24314***	0.24438***
	(8.373)	(8.579)	(8.291)
CHNPLU3	0.35415***	0.35386***	0.35287***
	(7.913)	(7.881)	(7.863)
NPLU0	0.00287	0.00281	0.00282
	(1.352)	(1.302)	(1.333)
NPLU1	0.05411**	0.05464**	0.05212**
	(2.272)	(2.278)	(2.131)
NPLU2	0.00664	0.00695	0.00736
	(0.249)	(0.261)	(0.273)
NPLU3	0.15627***	0.15614***	0.15670***
	(7.678)	(7.671)	(7.662)
SIZE	0.00233***	0.00233***	0.00239***
	(3.815)	(3.823)	(3.911)
AdjCAP	0.00302	0.00293	0.00272
	(0.726)	(0.707)	(0.655)
EBTP	0.02852	0.02855	0.03023
	(0.658)	(0.659)	(0.703)

CHEBTP	0.04694	0.04651	0.04827
	(1.080)	(1.085)	(1.111)
DNEGBTP	0.00000	-0.00000	-0.00000
	(0.005)	(-0.006)	(-0.005)
Constant	-0.03585***	-0.03583***	-0.03667***
	(-3.623)	(-3.632)	(-3.722)
BankFixedEffect	Yes	Yes	Yes
YearFixedEffect	Yes	Yes	Yes
Test for the equality of regression coefficients			
VYearOne = FYearOne		0.979	
VYearTwo = FYearTwo		0.311	
IYearOne = OYearOne			0.815
IYearTwo = OYearTwo			0.018
Adj-R^2	0.632	0.631	0.632
N	1,418	1,418	1,418

*** and ** indicate significance at the 1 percent and 5 percent levels (two-tailed), respectively. The *t*-statistics in parentheses are based on the standard errors clustered by bank and year. The values of the *Test for the equality of regression coefficients* are *p*-values from the tests of the null hypothesis that the two coefficients are equal. Appendix B provides the variable definitions.

Table 5. Management turnover effects on *GLLP* and *SLLP*

Panel A. Regression results for *GLLP*

	[1] *GLLP*	[2] *GLLP*	[3] *GLLP*
YearOne	0.00010		
	(1.136)		
YearTwo	-0.00011		
	(-1.425)		
VYearOne		0.00009	
		(0.879)	
VYearTwo		-0.00011	
		(-1.254)	
FYearOne		0.00013	
		(0.883)	
FYearTwo		-0.00011	
		(-0.850)	
IYearOne			0.00011
			(1.650)
IYearTwo			-0.00005
			(-0.741)
OYearOne			0.00007
			(0.243)
OYearTwo			-0.00032**
			(-2.488)
CHNPLU0	-0.00612***	-0.00610***	-0.00598***
	(-3.615)	(-3.492)	(-3.569)
CHNPLU1	0.12840***	0.12825***	0.12745***
	(3.861)	(3.885)	(3.889)
NPLU0	0.00251**	0.00253**	0.00249**
	(2.679)	(2.700)	(2.614)
NPLU1	0.01387**	0.01379**	0.01320**
	(2.492)	(2.468)	(2.300)
SIZE	0.00125**	0.00126**	0.00127**
	(2.745)	(2.753)	(2.748)
AdjCAP	0.00499*	0.00499*	0.00485*
	(1.994)	(1.971)	(1.861)
EBTP	-0.01413	-0.01428	-0.01346
	(-0.480)	(-0.488)	(-0.464)
CHEBTP	0.01644	0.01637	0.01689
	(1.032)	(1.022)	(1.070)
DNEGBTP	-0.00003	-0.00003	-0.00003
	(-0.419)	(-0.420)	(-0.427)
Constant	-0.02029***	-0.02032***	-0.02056***
	(-3.160)	(-3.171)	(-3.158)
BankFixedEffect	Yes	Yes	Yes

YearFixedEffect	Yes	Yes	Yes
Test for the equality of regression coefficients			
VYearOne = FYearOne		0.819	
VYearTwo = FYearTwo		0.975	
IYearOne = OYearOne			0.890
IYearTwo = OYearTwo			0.036
Adj-R^2	0.209	0.208	0.209
N	1,418	1,418	1,418

***, **, and * indicate significance at the 1 percent, 5 percent, and 10 percent levels (two-tailed), respectively. The *t*-statistics in parentheses are based on the standard errors clustered by bank and year. The values of the *Test for the equality of regression coefficients* are *p*-values from the tests of the null hypothesis that the two coefficients are equal. Appendix B provides the variable definitions.

Panel B. Regression results for SLLP.

	[1] *SLLP*	[2] *SLLP*	[3] *SLLP*
YearOne	0.00019		
	(1.577)		
YearTwo	-0.00013		
	(-0.990)		
VYearOne		0.00020	
		(1.396)	
VYearTwo		-0.00004	
		(-0.284)	
FYearOne		0.00017	
		(0.759)	
FYearTwo		-0.00037**	
		(-2.222)	
IYearOne			0.00021
			(1.609)
IYearTwo			-0.00003
			(-0.199)
OYearOne			0.00012
			(0.482)
OYearTwo			-0.00054**
			(-2.488)
CHNPLU2	0.23548***	0.23534***	0.23596***
	(10.228)	(10.405)	(10.233)
CHNPLU3	0.33757***	0.33689***	0.33587***
	(8.785)	(8.747)	(8.737)
NPLU2	0.02559	0.02626	0.02594
	(1.290)	(1.316)	(1.300)
NPLU3	0.17104***	0.17077***	0.17083***
	(10.888)	(10.529)	(10.966)
SIZE	0.00142***	0.00141***	0.00147***
	(4.226)	(4.543)	(4.271)
AdjCAP	-0.00044	-0.00053	-0.00068
	(-0.124)	(-0.150)	(-0.193)
EBTP	0.02554	0.02575	0.02715
	(0.700)	(0.707)	(0.722)
CHEBTP	0.03579	0.03535	0.03698
	(0.926)	(0.921)	(0.955)
DNEGBTP	0.00005	0.00005	0.00005
	(0.578)	(0.538)	(0.548)
Constant	-0.02061***	-0.02055***	-0.02133***
	(-4.067)	(-4.350)	(-4.109)
BankFixedEffect	Yes	Yes	Yes
YearFixedEffect	Yes	Yes	Yes

Test for the equality of regression coefficients			
VYearOne = FYearOne		0.900	
VYearTwo = FYearTwo		0.047	
IYearOne = OYearOne			0.725
IYearTwo = OYearTwo			0.042
Adj-R^2	0.690	0.690	0.690
N	1,418	1,418	1,418

***and ** indicate significance at the 5 percent, and 10 percent levels (two-tailed), respectively. The *t*-statistics in parentheses are based on the standard errors clustered by bank and year. The values of the *Test for the equality of regression coefficients* are *p*-values from the tests of the null hypothesis that the two coefficients are equal. Appendix B provides the variable definitions.

Table 6. Management turnover effects on commissions and fees

	[1] *Fee1*	[2] *Fee1*	[3] *Fee1*	[4] *Fee2*	[5] *Fee2*	[6] *Fee2*
YearOne	-0.00135			-0.00158		
	(-0.643)			(-0.680)		
YearTwo	-0.00040			0.00061		
	(-0.277)			(0.339)		
VYearOne		-0.00251			-0.00121	
		(-1.245)			(-0.631)	
VYearTwo		-0.00122			0.00040	
		(-0.870)			(0.245)	
FYearOne		0.00115			-0.00054	
		(0.347)			(-0.121)	
FYearTwo		0.00259			0.00428	
		(0.752)			(0.930)	
IYearOne			-0.00186			-0.00236
			(-0.966)			(-1.044)
IYearTwo			-0.00167			-0.00096
			(-1.273)			(-0.590)
OYearOne			0.00018			0.00552
			(0.039)			(0.960)
OYearTwo			0.00569			0.01101*
			(1.421)			(1.919)
Log (Size)	-0.06141***	-0.06195***	-0.06324***	-0.04822*	-0.04749*	-0.04912*
	(-3.024)	(-2.973)	(-3.060)	(-1.823)	(-1.788)	(-1.870)
Leverage	0.04740	0.03801	0.03726	-0.02897	-0.04256	-0.04178
	(0.524)	(0.426)	(0.420)	(-0.198)	(-0.294)	(-0.292)
Profitability	0.02231*	0.01678	0.01613	0.01163	0.00278	0.00442
	(2.085)	(1.693)	(1.608)	(0.779)	(0.223)	(0.341)
LoanIntensity	0.15060***	0.15699***	0.15503***	0.02164	0.03030	0.02973
	(3.947)	(4.099)	(4.075)	(0.406)	(0.579)	(0.575)
GrowthinNPLs	-0.08061	-0.09107	-0.08478	-0.06085	-0.07481	-0.06963
	(-1.083)	(-1.205)	(-1.141)	(-0.732)	(-0.781)	(-0.748)
LoanLossReserve	-0.12802	-0.11637	-0.12620	-0.13053	-0.10352	-0.12510
	(-0.655)	(-0.679)	(-0.740)	(-0.516)	(-0.430)	(-0.516)
AgriculturalLoans	0.23517	0.15619	0.13213	-0.27440	-0.31338	-0.36694
	(0.448)	(0.293)	(0.250)	(-0.318)	(-0.361)	(-0.421)
Commercialand IndustrialLoans	0.08545	0.08541	0.08599	0.10863	0.11145	0.11093
	(1.653)	(1.662)	(1.674)	(1.338)	(1.387)	(1.370)
RealEstateLoans	0.10917	0.09829	0.09871	0.06428	0.04938	0.04720
	(1.621)	(1.525)	(1.535)	(0.599)	(0.482)	(0.462)
IndividualLoans	0.07694	0.07168	0.07191	-0.08756	-0.08660	-0.08768
	(1.337)	(1.196)	(1.211)	(-1.355)	(-1.315)	(-1.334)
Constant	0.89293***	0.90033**	0.92050***	0.72162*	0.70590*	0.73154*
	(2.853)	(2.795)	(2.885)	(1.789)	(1.742)	(1.830)

BankFixedEffect	Yes	Yes	Yes	Yes	Yes	Yes
YearFixedEffect	Yes	Yes	Yes	Yes	Yes	Yes
Test for the equality of regression coefficients						
VYearOne = VYearOne		0.201			0.866	
FYearTwo = FYearTwo		0.358			0.442	
IYearOne = OYearOne			0.611			0.187
IYearTwo = OYearTwo			0.109			0.063
$AdjR^2$	0.824	0.825	0.826	0.808	0.807	0.808
N	1,516	1,501	1,501	1,516	1,501	1,501

***, **, and * indicate significance at the 1 percent, 5 percent, and 10 percent levels (two-tailed), respectively. The *t*-statistics in parentheses are based on the standard errors clustered by bank and year. The values of the *Test for the equality of regression coefficients* are *p*-values from the tests of the null hypothesis that the two coefficients are equal. Appendix B provides the variable definitions.

Table 7. Management turnover effects on gain and loss from securities sales

	[1] *SGL*	[2] *SGL*	[3] *SGL*	[4] *SGL≧0*	[5] *SGL≧0*	[6] *SGL≧0*	[7] *SGL*＜0	[8] *SGL*＜0	[9] *SGL*＜0
YearOne	0.00005			-0.00001			0.00013		
	(0.477)			(-0.064)			(0.672)		
YearTwo	-0.00009			0.00004			-0.00012		
	(-0.735)			(0.655)			(-0.658)		
VYearOne		0.00001			0.00001			0.00004	
		(0.058)			(0.107)			(0.188)	
VYearTwo		-0.00011			0.00014**			-0.00012	
		(-0.540)			(2.144)			(-0.598)	
FYearOne		0.00017			-0.00005			0.00042***	
		(1.260)			(-0.334)			(3.262)	
FYearTwo		-0.00006			-0.00019			-0.00012	
		(-0.321)			(-1.662)			(-0.302)	
IYearOne			0.00006			0.00003			0.00020
			(0.518)			(0.300)			(1.038)
IYearTwo			-0.00009			0.00011			-0.00027
			(-0.532)			(1.678)			(-1.190)
OYearOne			0.00000			-0.00018			-0.00026
			(0.010)			(-1.059)			(-0.489)
OYearTwo			-0.00012			-0.00028			0.00035*
			(-0.728)			(-1.421)			(2.033)
Log (Size)	0.00072	0.00073	0.00072	0.00068	0.00065	0.00069	0.00116	0.00120	0.00102
	(0.976)	(0.975)	(1.013)	(1.204)	(1.146)	(1.258)	(1.218)	(1.285)	(1.110)
Leverage	-0.00514	-0.00516	-0.00514	-0.00316	-0.00305	-0.00336	-0.01142	-0.01186	-0.01145
	(-1.120)	(-1.113)	(-1.118)	(-0.906)	(-0.889)	(-0.980)	(-1.567)	(-1.629)	(-1.490)
Profitability	-0.00055	-0.00052	-0.00057	0.00093*	0.00091*	0.00092*	-0.00057	-0.00054	-0.00070
	(-0.755)	(-0.682)	(-0.733)	(1.858)	(1.880)	(1.858)	(-0.346)	(-0.321)	(-0.418)
LoanIntensity	0.00011	0.00017	0.00011	0.00029	0.00025	0.00026	0.00296	0.00306	0.00326
	(0.066)	(0.099)	(0.063)	(0.253)	(0.216)	(0.213)	(0.899)	(0.961)	(0.965)
GrowthinNPLs	-0.00146	-0.00164	-0.00147	-0.00216	-0.00188	-0.00184	-0.00573	-0.00609	-0.00545
	(-0.213)	(-0.236)	(-0.212)	(-0.594)	(-0.485)	(-0.514)	(-0.892)	(-0.923)	(-0.872)
LoanLossReserve	0.00277	0.00267	0.00280	0.00102	0.00133	0.00155	-0.00830	-0.00830	-0.00862
	(0.246)	(0.234)	(0.247)	(0.110)	(0.144)	(0.165)	(-0.680)	(-0.670)	(-0.702)

AgriculturalLoans	0.00793	0.00779	0.00821	-0.00137	0.00162	0.00072	0.00180	0.00487	0.00024
	(0.387)	(0.366)	(0.379)	(-0.079)	(0.095)	(0.042)	(0.040)	(0.111)	(0.005)
CommercialandIndustrialLoans	0.00230	0.00228	0.00230	0.00098	0.00101	0.00095	-0.00149	-0.00146	-0.00191
	(0.829)	(0.821)	(0.820)	(0.549)	(0.571)	(0.532)	(-0.371)	(-0.367)	(-0.460)
RealEstateLoans	-0.00113	-0.00116	-0.00110	-0.00121	-0.00114	-0.00117	-0.00872	-0.00885	-0.00943
	(-0.438)	(-0.451)	(-0.434)	(-0.622)	(-0.597)	(-0.603)	(-1.530)	(-1.553)	(-1.545)
IndividualLoans	-0.00157	-0.00159	-0.00157	-0.00207	-0.00200	-0.00212	-0.00729	-0.00722	-0.00806
	(-0.638)	(-0.641)	(-0.638)	(-1.207)	(-1.178)	(-1.261)	(-1.655)	(-1.658)	(-1.668)
Constant	-0.01105	-0.01126	-0.01114	-0.00902	-0.00862	-0.00923	-0.01620	-0.01692	-0.01374
	(-0.963)	(-0.964)	(-0.998)	(-1.091)	(-1.038)	(-1.143)	(-1.105)	(-1.180)	(-0.983)
BankFixedEffect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
YearFixedEffect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Test for the equality of regression coefficients									
VYearOne = VYearOne		0.441			0.737			0.064	
FYearTwo = FYearTwo		0.894			0.017			0.988	
IYearOne = OYearOne			0.839			0.298			0.375
IYearTwo = OYearTwo			0.887			0.073			0.035
Adj-R^2	0.334	0.333	0.333	0.255	0.257	0.258	0.442	0.440	0.443
N	1,395	1,395	1,395	914	914	914	475	475	475

***, **, and * indicate significance at the 1 percent, 5 percent, and 10 percent levels (two-tailed), respectively. The *t*-statistics in the parentheses are based on standard errors clustered by bank and year. The *t*-statistics in parentheses are based on the standard errors clustered by bank and year. The values of the *Test for the equality of regression coefficients* are *p*-values from the tests of the null hypothesis that the two coefficients are equal. Appendix B provides the variable definitions.

Table 8. Management turnover effects on LLP including the final year of the tenure

	[1] *LLP*	[2] *LLP*	[3] *LLP*
FinalYear	0.00014		
	(1.069)		
YearOne	0.00032		
	(1.660)		
YearTwo	-0.00017		
	(-1.223)		
VFinalYear		0.00002	
		(0.169)	
VYearOne		0.00031	
		(1.295)	
VYearTwo		-0.00010	
		(-0.596)	
FFinalYear		0.00048	
		(1.335)	
FYearOne		0.00036	
		(1.107)	
FYearTwo		-0.00032*	
		(-1.755)	
IFinalYear			-0.00008
			(-0.695)
IYearOne			0.00031
			(1.528)
IYearTwo			-0.00008
			(-0.475)
OFinalYear			0.00121**
			(2.224)
OYearOne			0.00041
			(1.058)
OYearTwo			-0.00051**
			(-2.433)
Constant	Yes	Yes	Yes
Control Variables	Yes	Yes	Yes
BankFixedEffect	Yes	Yes	Yes
YearFixedEffect	Yes	Yes	Yes
Test for the equality of regression coefficients			
VFinalYear = FFinalYear		0.251	
VYearOne = FYearOne		0.897	
VYearTwo = FYearTwo		0.399	
IFinalYear = FOinalYear			0.034
IYearOne = OYearOne			0.795
IYearTwo = OYearTwo			0.095
Adj-R^2	0.632	0.632	0.636

N	1,418	1,418	1,418

** and * indicate significance at the, 5 percent, and 10 percent levels (two-tailed), respectively. The *t*-statistics in parentheses are based on the standard errors clustered by bank and year. The values of the *Test for the equality of regression coefficients* are *p*-values from the tests of the null hypothesis that the two coefficients are equal. Appendix B provides the variable definitions.