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# Earnings baths by bank CEOs during turnovers

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# Non-technical summary

The chief executive officer (CEO) occupies an accentuated position in a firm's decisionmaking process. In this empirical study we investigate whether incoming CEOs in German banks engage in *big bath accounting* during their first year in charge. Taking such an *earnings bath* lowers the performance benchmark to be achieved in subsequent years. As a poor performance in the first year is often not yet attributed to the managerial skills of the incoming CEO, doing so does not entail any drawbacks with respect to his or her remuneration or reputation.

Our findings from a sample of German savings banks over 1993-2012 are as follows. We document that incoming CEOs increase discretionary expenses during their first year in charge. Succeeding CEOs from outside the bank take a larger earnings bath than those from the inside, and incoming CEOs take a smaller earnings bath when the incumbent CEOs retire than when they leave for other reasons. These findings are insensitive to several modifications. Most importantly, the results hold even when we focus on banks that do not need to cure shortages in their existing stock of risk provisions, which may provide an alternative explanation for observable extraordinary amounts of discretionary expenses.

This study is – to the best of our knowledge – the first to report on big bath accounting during CEO turnovers in the banking industry. It contributes to a better understanding of corporate governance in financial institutions and, for stakeholders, it helps to more correctly evaluate bank performance during turnover years.

# Nicht-technische Zusammenfassung

Der Vorstandsvorsitzende hat naturgemäß eine herausgehobene Position innerhalb eines jeden Unternehmens inne. Wir untersuchen in dieser empirischen Studie, ob nachfolgende Vorstandsvorsitzende in deutschen Banken ein sogenanntes "*big bath accounting*" betreiben, indem sie im Jahr des Wechsels im Vorstandsvorsitz einen außerordentlich hohen diskretionären Aufwand generieren. Ein solches Verhalten würde die in den Folgejahren zu erreichende Vergleichsgröße verringern. Da die Managementleistung des neuen Vorstandsvorsitzenden im ersten Jahr der Amtszeit häufig noch nicht anhand der wirtschaftlichen Lage (bzw. der Profitabilität der Bank) gemessen wird, birgt die Senkung des Jahresüberschusses für ihn keine negativen Konsequenzen.

Unsere Ergebnisse – basierend auf einem Datensatz deutscher Sparkassen aus den Jahren 1993 bis 2012 – zeigen, dass nachfolgende Vorstandsvorsitzende außergewöhnlich hohe diskretionäre Aufwendungen im ersten Jahr ihrer Amtszeit ausweisen. Ein externer Nachfolger generiert dabei höhere diskretionäre Aufwendungen im ersten Jahr seiner Amtszeit, als dies bei einer bankinternen Nachfolge der Fall ist. Weiterhin sind die diskretionären Aufwendungen im ersten Jahr nach einer (regulären) Pensionierung des amtierenden Vorstandsvorsitzenden geringer, als wenn es aus anderen Gründen zu einem Führungswechsel in der Bank kommt. Diese Ergebnisse sind robust gegenüber zahlreichen Modifikationen. Insbesondere gilt dies auch für die Betrachtung von Banken mit einem bereits hohen Bestand an Risikovorsorge, da für diese Institute der höhere diskretionäre Aufwand des nachfolgenden Vorsitzenden nicht mit dem Aufholen einer angemessenen Risikovorsorge erklärt werden kann.

Diese Studie ist gemäß unserer Kenntnis die erste, welche ein "big bath accounting" während des Wechsels im Vorstandsvorsitz in Bankinstituten belegt. Sie trägt somit zu einem besseren Verständnis der *Corporate Governance* in Banken bei. Darüber hinaus ermöglichen es die Erkenntnisse der Studie gerade auch Stakeholdern, die Ergebnissituation eines Bankinstituts im Jahr des Wechsels im Vorstandsvorsitz angemessener zu beurteilen.

# Earnings baths by bank CEOs during turnovers<sup>\*</sup>

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#### Abstract

This study investigates the development of income-decreasing discretionary expenses surrounding CEO turnovers at banks. We expect incoming CEOs to take an *earnings bath* during the initial stage of their tenure. For a sample of German banks over the period 1993-2012, we document that (1) incoming CEOs increase discretionary expenses, i. e. engage in *big bath accounting*, during their first (partial) year in charge, (2) incoming CEOs from outside the bank take a larger earnings bath than insiders, and (3) incoming CEOs take a smaller earnings bath when the incumbent CEOs retire than when they leave for other reasons. Our findings are robust to several modifications. Most importantly, they also hold true when the incoming CEO's objective of rectifying shortages in the existing stock of risk provisions has been taken into account, which may provide an alternative explanation for observing extraordinary amounts of discretionary expenses in turnover years.

**Keywords:** CEO turnover, Earnings management, Big bath accounting, Discretionary expenses, Financial institutions.

JEL classification: C23, G21, M41.

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# 1 Introduction

The chief executive officer (CEO) occupies an accentuated position in a firm's decisionmaking process (e.g. Bertrand and Schoar (2003), Bergstresser and Philippon (2006), Bennedsen, Pérez-González, and Wolfenzon (2010)). His or her position may be even more emphasized during top executive turnovers. Since individuals evaluate performance relative to a benchmark rather than in absolute terms (Kahneman and Tversky (1979)), incoming CEOs may aim to secure their new position particularly during the initial years of stewardship by changing the relative performance benchmark in their favor. Taking an *earnings bath* (Pourciau (1993), Godfrey, Mather, and Ramsay (2003)) lowers the performance benchmark to be achieved during subsequent accounting periods and saves income to be used in subsequent accounting periods, without entailing any drawbacks to the incoming CEOs with respect to their remuneration or reputation. While the literature has investigated discretionary accounting choices during CEO turnovers at non-financial firms (e.g. Davidson III, Biao, Weihong, and Ning (2007), Geiger and North (2006)), little is known about financial firms. Therefore, this study is – to the best of our knowledge – the first to report on big bath accounting during CEO turnovers in the banking industry.

We investigate big bath accounting during CEO turnovers along several lines. We start by examining whether incoming bank CEOs incur extraordinarily large amounts of income-decreasing discretionary expenses during the initial stage of their tenure. We also investigate differences in the propensity to engage in big bath accounting between insider and outsider turnovers as well as between those triggered by the retirement of the former CEO and those attributable to any other reasons, e.g. resignation or dismissal. This is based on the conjecture that social ties between the incumbent CEO and his or her successor, which are presumably stronger during insider and retirement turnovers than during outsider and non-retirement ones, should restrict the scope for exerting managerial discretion.

To flag incidents of big bath accounting during turnover years it must first be separated from other forms of earnings management, such as income smoothing<sup>1</sup> (Trueman and Titman (1988)). Similar to taking an earnings bath, top executives may remedy their

<sup>1</sup> Income smoothing refers to reducing the fluctuation of an income stream over time.

job security concerns by smoothing the income stream (Fudenberg and Tirole (1995)). Several studies show that managers exert discretion on their firms' income streams in non-financial (e.g. DeFond and Park (1997), Leuz, Nanda, and Wysocki (2003)) as well as financial firms (e.g. Anandarajan, Hasan, Lozano-Vivas, and Sale (2003), Anandarajan, Hasan, and McCarthy (2007), Alali and Jaggi (2011)). Among others, Lobo and Yang (2001), Kanagaretnam, Lobo, and Mathieu (2003), and Hasan and Wall (2004) reveal that managers of US banks save earnings for future periods by increasing loan loss provisions (LLP) in good times and borrow earnings from the future by releasing LLP in bad times. We follow this literature by controlling for income smoothing efforts. Since the literature identifies several discretionary expense items, such as loan loss accruals (e.g. Lobo and Yang (2001), Hasan and Wall (2004)), security gains and losses (SGL) (e.g. Beatty, Chamberlain, and Magliolo (1995), Collins, Shackelford, and Wahlen (1995), Shrieves and Dahl (2003)) and country-specific expenses (e.g. Bornemann, Kick, Memmel, and Pfingsten (2012) to be used for income smoothing, we use an aggregate measure of discretionary expenses to adequately deal with all items that are subject to the CEOs' discretion. Moreover, since the literature frequently reveals gradual adjustments in discretionary expenses (e.g. Laeven and Majnoni (2003), Bikker and Metzemakers (2005), Pérez, Saurina Salas, and Salas-Fumás (2008)), we set up a dynamic panel data model as a way to tackle these gradual adjustments and to distinguish between big bath accounting and income smoothing effects.

Unfortunately, identifying larger amounts of discretionary expenses during turnover years after tackling income smoothing does not necessarily indicate that the incoming CEO takes an earning bath to change his or her relative performance benchmark and to save income for future periods. In contrast to many other industries, adequate risk provisioning is vital for the health of financial firms. Hence, risk provisioning considerations on the part of the incoming CEO may cause extraordinary amounts of discretionary expenses to be observable during turnover years. The incoming CEO may deem the existing stock of risk provisions accumulated under the stewardship of his or her predecessor to be inappropriate relative to the bank's current risk exposure. If so, he or she may be merely incurring discretionary expenses to rectify insufficient past provisioning rather than to opportunistically exert managerial discretion. Therefore, we not only control for the banks' risk provisions and risk exposure in our analyses, but also investigate separately big bath accounting effects of CEOs being appointed at banks with a high stock of risk provisions relative to the banks' risk exposure. This approach additionally sets our study apart from those investigating big bath accounting in non-financial firms.

Our study on big bath accounting during CEO turnovers in the banking industry adds to several parts of the literature and contributes to a better understanding of corporate governance in financial institutions. Relevant for the contribution of our study to the literature is that financial firms, in particular banks, differ in two important aspects from corporate firms: First, the regulatory environment in which banks operate is unique as, for example, the appointment of the CEO requires explicit approval by the supervisory authority. Second, risk management of banks is in general of a higher importance than in corporate firms which is reflected in different approaches and measures to determine risk. Related issues have still received relatively little attention in the literature. So far, Fiechter and Meyer (2010) are the only ones to address big bath accounting at financial firms. While they examine fair value measurements during the recent financial crisis, they do not focus on CEO changes. Few studies focus on executive changes at financial institutions. Barro and Barro (1990) relate CEO pay and turnover to bank performance, while Webb (2008) studies the effects of monitoring intensity on CEO turnovers in banks. Most existing research on banks' governance examines the effects of different ownership structures on bank valuation (e.g. Caprio, Laeven, and Levine (2007)) and risk-taking (e.g. Ianotta, Nocera, and Sironi (2007)). Lately, Schaeck, Cihak, Maechler, and Stolz (2012) reveal that bank executives are more likely to be dismissed if their bank is risky, incurs losses, cuts dividends, has a high charter value, and holds high levels of subordinated debt. We add to the ongoing discussion on adequate bank governance by providing novel evidence on big bath accounting during CEO turnovers at banks, which helps stakeholders to appropriately evaluate reported accounting numbers during years of CEO turnovers.

The remainder of this paper is organized as follows: Section 2 outlines incentives for exerting managerial discretion during CEO turnovers and derives testable hypotheses. Section 3 presents the data used, provides descriptive statistics, and introduces our econometric model. Section 4 reports the results of our multivariate analysis. Section 5 winds up with some concluding remarks.

## 2 Hypotheses

Turnover events involve two distinct individuals: the incumbent and the incoming CEO (Ronen and Yaari (2008)). While both may be exposed to very different incentives during the turnover year, which is defined here as the first year in which the incoming CEO is either already in charge of or at least able to materially influence the bank's financial reporting, we restrict our investigation to the incoming CEO's behavior for the following two reasons. First, he or she is able to revise decisions taken by his or her predecessor, which makes discretion exerted by the incumbent hard to measure. Second, some CEOs threatened by dismissal are able to evade replacement by means of extraordinary accounting choices similar to those taken during a turnover. In these cases, behavior consistent with that preceding a change in the top executive's position would not be followed by such a change. As we are unable to identify executives who only very narrowly evaded replacement only, discretion exerted by the incumbent is once more hard to detect. Both reasons may explain why previous studies (e.g. Wells (2002), Davidson III et al. (2007)) find only limited evidence of discretion exerted by the departing CEO during the turnover year.

The incoming CEO aims to signal his or her managerial ability in order to secure the new position particularly during the initial stage of his or her stewardship (e.g. Shen and Cannella Jr. (2002)). According to the prospect theory of Kahneman and Tversky (1979), individuals evaluate performance relative to a benchmark rather than in absolute terms. Therefore, one way of securing the new position particularly during a new CEO's initial years in charge is to meet or beat certain earnings benchmarks. The previous year's performance has been identified as such a benchmark for non-financial (e.g. Burgstahler and Dichev (1997), Degeorge, Patel, and Zeckhauser (1999)) as well as financial firms (Shen and Chih (2005)).

Incurring extraordinary amounts of discretionary expenses reduces the bank's net income during the turnover year, which in turn lowers the benchmark to be achieved in subsequent periods. Doing so also saves income, which is available for meeting earnings targets in future years. This comes at the cost of a rather bad bank performance during the turnover year. However, the incoming CEO is usually able to attribute such bad performance, which may result from his or her income-decreasing actions, to the long-term consequences of decisions taken or omitted by his or her predecessor. Therefore, the new CEO does not have to fear a loss in either managerial reputation or remuneration owing to a dissatisfactory bank performance during his or her first partial year in charge. In addition, he or she will benefit in both regards from reaching the earnings benchmark in the future. Therefore, the incoming CEO is strongly inclined to engage in big bath accounting during the turnover year. We hypothesize accordingly:

**Hypothesis 1**: An incoming CEO builds more discretionary expenses in the turnover year than in non-turnover years.

We expect differences in the extent of big bath accounting to prevail between turnovers characterized by different circumstances. One of these circumstances is the professional origin of the incoming CEO, who may either be an insider or an outsider to the bank. An insider is someone who has an employment history with the bank prior to being appointed as its CEO, whereas this is not the case for an outsider. Such a difference in professional origin should affect the incoming CEO's propensity for taking an earnings bath for two reasons. First, before being appointed as CEO an inside successor has frequently headed departments that are critical to the bank's overall performance (e.g. the loan division or corporate clients). Therefore, questionable managerial decision-making and dissatisfactory performance in the past may, in part, also be attributable to his or her involvement and skills. Second, he or she has been collaborating with the incumbent CEO in his or her former position, which may give rise to some sort of social ties between both individuals. Given the importance of social networks for being promoted within a firm (Vancil (1987)), those ties are likely to influence the successor's behavior with respect to big bath accounting. As a result, an insider may neither be inclined nor able to blame the predecessor for poor past performance and inappropriate decision-making as much as an outsider. Consequently, an inside successor is unable to raise discretionary expenses for the purpose of taking an earnings bath as much as an outsider. While we expect the amount of discretionary expenses to be larger during either of the two turnover types compared to non-turnover years, we predict with respect to their relative importance to one another:

**Hypothesis 2**: An incoming CEO incurs more additional discretionary expenses during the turnover year if he or she is an outsider rather than an insider.

Beyond differences in the successor's professional origin, different triggers of the turnover event are also likely to influence the incoming CEO's propensity to engage in big bath accounting. The probably most intuitive cause for a turnover is the retirement of the incumbent CEO. Other potential triggers include a voluntary or involuntary resignation, the non-prolongation of an expiring contract (either at the request of the bank or the executive) or CEO dismissal.

The literature (e. g. Pourciau (1993), Wells (2002)) investigates differences in the way managerial discretion is exerted during so-called *routine* CEO changes on the one hand and *non-routine* ones on the other. Whereas a routine turnover is characterized by a relatively orderly CEO succession process, a bank may not have the opportunity to adequately structure a non-routine turnover. A typical example of a (non-) routine turnover is CEO retirement (dismissal). Both above-mentioned authors acknowledge the lack of consistent criteria for classifying turnovers into either routine or non-routine events and the large potential for misclassifications. As we are also unaware of convincing criteria, we refrain from replicating their ideas. Since our data allow us to reliably separate turnovers owing to retirement of the former CEO from those triggered by any other reason, we instead investigate differences between those two types of turnovers. Retirements are by far the most frequent cause of routine turnovers in the above-mentioned studies. Therefore, it is not surprising that our following line of argument closely resembles the reasoning on routine turnovers.

As a retirement turnover is a rather well-planned event, and given that the existing empirical evidence suggests that incumbent CEO exercises considerable influence over the appointment process (Shivdasani and Yermack (1999)), he or she is likely to be involved in selecting his or her successor. If so, both individuals may have established some connections, which are similar to ties developed between the incumbent and an inside successor. As an even more relevant characteristic, owners and other stakeholders frequently evaluate the managerial performance of the departing CEO in a much less hostile manner during retirement turnovers than during non-retirement ones. This particularly holds for CEO resignations or dismissals. Consequently, a non-retirement turnover allows the incoming CEO to more pervasively blame the predecessor for poor current and past bank performance and lets him or her take an earnings bath more easily.<sup>2</sup> While we expect the incoming CEO to engage in big bath accounting in either of the two turnover types, we hypothesize with respect to their relative importance to one another:

**Hypothesis 3**: An incoming CEO incurs lower additional discretionary expenses during the turnover year if the incumbent retires rather than leaves for other reasons.

<sup>&</sup>lt;sup>2</sup> We note that during non-retirement turnovers that are not due to resignation or dismissal, the incoming CEO's abilities to engage in big bath accounting may be similarly limited than during retirement changes.

## 3 Data and econometric model

#### 3.1 Sample

Our data come from the Deutsche Bundesbank's prudential database BAKIS. This is the information system on bank-specific data, which is jointly operated by the Deutsche Bundesbank and the German Financial Supervisory Authority (Memmel and Stein (2008)). This unique database contains information on the financial statements of and supervisory reports on individual German banks as well as information on bank executives' positions and contract periods.

In building our sample, we started with banks that belong to the German universal banking system, which consists of three sectors (commercial, cooperative, and savings banks). However, we restrict our analyses to savings banks for the following reasons. Many cooperative banks do not single out a member of the management team as being the chief executive, and small commercial banks differ considerably from other banks in the way they structure turnovers, since they are manager- or family-owned. We refrain from mixing observations of savings banks with the of cooperative banks (which single out a member of the management team as the chief executive) and larger commercial banks, because of pronounced differences in governance and business models between the three sectors (Memmel and Schertler (2012)). We also do not include money-center banks, Landesbanken and cooperative central banks in our sample since they differ too much in size, business model and governance to be jointly examined with savings banks.

Most German savings banks belong to state or local communities and profess to follow social and/or regional development objectives. Owing to this ownership structure and, according to practitioners as well as to rather vague renumeration reports, relatively little, if any, performance pay, CEOs of savings banks may have lower incentives to engage in big bath accounting than CEOs of other banks. Thus, finding earnings baths here indicates that big bath accounting is likely even more important in the banking sector as a whole. We analyze unconsolidated accounts prepared according to the German Commercial Code ("HGB"), because the vast majority of German savings banks do not prepare consolidated accounts at all. As a consequence, the unconsolidated statements are nearly the only source of information available to most stakeholders for evaluating managerial performance.

Our sample stretches over the years 1993 through 2012. We control for a substantial number of mergers and acquisitions (M&A) during our sample period by creating a new bank independent of the pre-M&A ones, which starts operating in the M&A year. Since managerial behavior during M&A turnovers is presumably driven by different incentives than those studied here, we exclude M&A turnovers from the sample. Technically speaking, we neglect the first observation of the post-M&A bank and the last observation of each pre-M&A bank. We require three consecutive observations for reliably identifying a turnover. This, as well as missing data and eliminating gaps in banks' time series further shrinks our estimation sample to a still reasonable, final number of 7,102 observations for metal period by the sample.

#### 3.2 Discretionary expenses

The existing literature has frequently proven that banks use different kinds of discretionary expense items, such as loan loss accruals (e.g. Lobo and Yang (2001), Hasan and Wall (2004)) and SGL (e.g. Beatty et al. (1995), Collins et al. (1995), Shrieves and Dahl (2003)), for earnings management and income smoothing purposes. We follow this literature in considering LLP, loan charge-offs (LCO) and SGL as key components of banks' discretionary expenses. In addition to these items, German financial accounting regulation contains two almost unique positions, which are specified in sections 340f and 340g HGB. These positions provide managers with considerable scope for exerting discretion on the income streams of their banks (e.g. Bornemann et al. (2012)).

Section 340f HGB allows managers of German banks to build provisions for general banking risks (hereinafter 340f reserves). The bank's management alone is responsible for decision-making on 340f reserves and owners lack any influence on this decision. These reserves are built by deliberately understating the book value of customer and interbank loans as well as bonds, other fixed-income securities, shares and securities bearing variable interest that are assigned to the liquidity reserve (as an asset category for securities in the banking book that are available for sale) by up to 4%. The fact that their level does not need not be linked to the risks inherent in the underlying assets strongly encourages ma-

nagerial discretion. Moreover, expenses (income) from building (releasing) 340f reserves may be compensated with income (expenses) from the lending business. Therefore, their levels and changes therein are invisible in the balance sheets and income statements of German banks. They are merely reported to auditors and supervisors. Thus, 340f reserves are hidden to most of the banks' stakeholders.

On top of this, bank managers are, according to section 340g HGB, given the opportunity to provision for general banking risks by building visible reserves (hereinafter 340g reserves). As with their hidden counterpart, decision-making with respect to these reserves lies solely with the bank's management. Owner approval is not needed. In contrast to 340f reserves, the level of 340g reserves has to be disclosed as a separate balance sheet item and changes therein are captured by a corresponding position in banks' income statements. Much like 340f reserves, the main scope for exercising managerial discretion arises from the missing link between the level of 340g reserves and the risks inherent in any specific assets. Unlike 340f reserves, this level is moreover not restricted by any quantitative limit.

Thus, investigating managerial discretion during periods of CEO turnovers at German banks requires consideration to be given to the decision-making on LLP, LCO, SGL, changes in 340f reserves and changes in 340g reserves. Table 1 provides descriptive statistics for each of these variables measured for bank i in year t as a percentage of the bank's end-of-year t - 1 total assets. On average, LCO account for 0.30% of total assets, followed by LLP at 0.29% and SGL at 0.19%. Changes in 340f reserves and changes in 340g reserves are similar in size at 0.09% and 0.11%, respectively, of total assets.

Additionally, the table delivers descriptive statistics for  $DISC^{TA}$ . This is the aggregate of all discretionary expenses measured for bank *i* in year *t*. More specifically, net expenses, i. e. expenses from building, less income from releasing annual general and specific LLP as well as annual LCO, are added to net expenses from building 340g and 340f reserves. From this sum, net SGL (i. e. gains less losses) are deducted. A positive (negative) value of  $DISC^{TA}$  indicates that bank *i* in year *t* incurs discretionary expenses (gains), which reduce (increase) net income as presented in the P&L. On average,  $DISC^{TA}$  accounts for 0.34% of total assets. The average size of discretionary expenses is remarkable, since discretionary expenses account for as much as 42%, on average, of non-discretionary

	Mean	Std. Dev.	p1	p50	p99
$LLP^{TA}$ (in %)	0.29	0.31	-0.31	0.23	1.49
$LCO^{TA}$ (in %)	0.30	0.26	0.01	0.23	1.43
$SGL^{TA}$ (in %)	0.19	0.26	-0.63	0.18	0.99
CH340f <sup>TA</sup> (in %)	0.09	0.37	-1.98	0.11	0.73
CH340 $g^{TA}$ (in %)	0.11	0.34	0.00	0.00	2.22
$\overline{DISC^{TA}}$ (in %)	0.34	0.35	-0.75	0.35	1.26

Table 1: Descriptive statistics for discretionary expenses

Note: Mean (Std. Dev.) describes the mean (standard deviation) of each variable in our sample. p1 (p50 and p99, respectively) refers to the 1st (50th and 99th, respectively) percentile of the distribution of the corresponding variable. LLP (loan loss provisions), LCO (P&L relevant loan charge-offs and use of LLP), SGL (security gains and losses), CH340f (annual change in 340f reserves), CH340g (annual change in 340g reserves) are shown for bank *i* in year *t* as a percentage of its end-of-year t - 1 total assets.  $DISC_{i,t}^{TA}$  is the aggregate of discretionary expenses. It follows from expenses from building, less income from releasing annual general and specific LLP and annual LCO *plus* net expenses from building 340g and 340f reserves *minus* net SGL.

income. The information on various percentiles shows that most annual discretionary expenses in our sample are positive. This indicates that managerial discretion is more often used to decrease rather than increase net income, i.e. the number of years in which banks build discretionary expenses is higher than the number of years in which they realize discretionary gains.

We use  $DISC^{TA}$  rather than the individual items it is comprised of as the dependent variable in our analyses. In this regard, our study differs from existing studies on income smoothing (e. g. Beatty et al. (1995), Collins et al. (1995), Shrieves and Dahl (2003)) that capture discretion inherent in more than one item by means of a system of simultaneous equations. We do not follow such an approach, because we want to measure the total effect of turnovers on discretionary expenses. Measuring total effects in a system of simultaneous equations is not possible in our case, since banks have too much leeway as their decisions on changes in 340f reserves, 340g reserves and LLP are likely perfect substitutes. Technically speaking, it is difficult to find identifying variables for the additional country-specific expenses (i. e. those from building 340f and 340g reserves) that we would have to consider in our analyses. A beneficial side-effect of using  $DISC^{TA}$  as the dependent variable is that an econometric model considering potential dynamic responses is much more easily implemented for  $DISC^{TA}$  than for the individual items it is comprised of because  $DISC^{TA}$  does not suffer from left or right censoring, while some (but not all) of the individual items it comprises are censored or highly skewed (e.g.  $CH340g^{TA}$ ).

#### 3.3 Turnovers and discretionary expenses

In Table 2, we give information on the total number of turnovers as well as the numbers of insider and outsider turnovers on the one hand, and of retirement and non-retirement ones on the other. Overall, our sample consists of 518 turnovers. 389 are insider turnovers; only 129 are outsider turnovers. Most turnovers are due to retirement, which is in line with the related literature (Pourciau (1993), Wells (2002)). One may argue that outside successors are more likely chosen during non-retirement turnovers, while retiring CEOs may to be more frequently by insiders. As shown, 38.4% of all non-retirement turnovers and only 19.6% of all retirement ones are followed by outside succession. Thus, insider/outsider turnovers and retirement/non-retirement turnovers are not independent of one another.

	Retirement turnover	Non-retirement turnover	Total
Insider turnovers			
Number	299	90	389
Column (%)	80.4	61.6	75.1
Outsider turnovers			
Number	73	56	129
Column (%)	19.6	38.4	24.9
Total number	372	146	518
Row $(\%)$	71.8	28.2	100.0

Table 2: Number of turnover and types

Next, we report the means of discretionary expenses  $(DISC^{TA})$  for banks in the preturnover (t-1), the turnover (t) and the post-turnover (t+1) year in Panel A of Table 3. The means of  $DISC^{TA}$  are given separately for all turnover observations regardless of the specific turnover type, for those involving an insider or an outsider turnover, and finally for those subject to a retirement or a non-retirement. Noteworthy is the following

Note: The table relates insider and outsider to retirement and non-retirement turnovers over the sample period 1995-2012. *Column* refers to the observations in each cell of the table as a percentage of the number of observations in the respective column. *Row* reveals the observations in each cell of the table as a percentage of the total number of observations in the respective row.

cross-sectional variation in the data: Banks with outsider turnovers have lower average discretionary expenses in the pre-turnover, the turnover and the post-turnover year than banks with insider turnovers, while the average discretionary expenses of retirement turnovers do not differ much from those relating to non-retirement turnovers. The persistent difference in discretionary expenses is likely to indicate that banks with outsider turnover differ significantly in their risk profile and exposure from banks with insider turnover.

In order to gain preliminary insights into our hypotheses that deal with additional discretionary expenses we have to look, however, at time-series variations in discretionary expenses. Therefore, we provide information on how discretionary expenses in the turnover year differ from the ones before and after the turnover event, and test whether the differences differ from zero. As indicated by the significant and positive difference between discretionary expenses in t and t - 1 in Panel A (0.032<sup>\*</sup>), banks experiencing a turnover exhibit larger discretionary expenses during the turnover year than in the preturnover year. This provides preliminary support for hypothesis 1. A similar positive and significant difference is observable for insider as well as retirement turnovers, while for outsiders and non-retirement turnovers the differences lack statistical significance. Thus, we do not find that outsider turnovers experience larger amounts of discretionary expenses than insider turnovers (as argued by hypothesis 2), nor do we find that non-retirement turnovers as postulated by hypothesis 3.

Large amounts of discretionary expenses in turnover years may be initiated by risk provisioning rather than big bath accounting considerations. More specifically, part of our measure of discretionary expenses in turnover years may be solely attributable to the incoming CEO trying to rectify shortages in risk provisioning. Thus, interpreting extraordinary amounts of discretionary expenses during turnover years as big bath accounting, means ensuring that the effect is not driven by risk provisioning considerations.

Therefore, we divide the sample into two subsamples and investigate them separately. The division is based on a bank's aggregate stock of risk provisions, which is the loan loss allowance plus the stock of 340f and 340g reserves, as a percentage of its non-performing loans. Observations with a value of this ratio above (below) the median of all observations are assigned to the subsample *banks with high risk provisions* (*banks with low risk provi*-

	Panel A: All banks									
Year	All	Insider	Outsider	Retirement	Non-retirement					
$\overline{t-1}$	0.332	0.357	0.248	0.330	0.333					
$\overline{t}$	0.364	0.388	0.289	0.375	0.335					
$\overline{t+1}$	0.359	0.374	0.319	0.362	0.344					
$\overline{\frac{DISC_{i,t}^{TA} - DISC_{i,t-1}^{TA}}{DISC_{i,t+1}^{TA} - DISC_{i,t}^{TA}}}$	$0.032^{*}$ -0.004	0.031* -0.014	$\begin{array}{c} 0.041 \\ 0.030 \end{array}$	0.045** -0.012	0.002 0.008					
No of obs. in $t$	518	389	129	372	146					
	Panel B: Banks with high risk provisions									
Year	All	Insider	Outsider	Retirement	Non-retirement					
$\overline{t-1}$	0.335	0.358	0.231	0.341	0.309					
$\overline{t}$	0.399	0.413	0.338	0.395	0.414					
$\overline{t+1}$	0.359	0.386	0.252	0.368	0.321					
$\overline{\frac{DISC_{i,t}^{TA} - DISC_{i,t-1}^{TA}}{DISC_{i,t+1}^{TA} - DISC_{i,t}^{TA}}}$	0.064** -0.041*	0.056** -0.028	0.107* -0.086	0.054** -0.027	0.105* -0.093*					
No of obs. in $t$	268	218	50	207	61					
		Panel C	: Banks wit	th low risk pro	visions					
Year	All	Insider	Outsider	Retirement	Non-retirement					
$\overline{t-1}$	0.329	0.357	0.261	0.316	0.353					
$\overline{t}$	0.328	0.359	0.262	0.352	0.282					
$\overline{t+1}$	0.359	0.358	0.362	0.355	0.360					
$\overline{DISC_{i,t}^{TA} - DISC_{i,t-1}^{TA}}_{DISC_{i,t+1}^{TA} - DISC_{i,t}^{TA}}$	-0.001 0.031	0.002	0.001 0.100*	$0.036 \\ 0.003$	-0.071 0.078					
No of obs. in $t$	250	171	79	165	85					

Table 3: Discretionary expenses around turnover events

Note: All refers to observations with a turnover event irrespective of the turnover type. Insider (outsider) denotes observations with an insider (outsider) turnover. Retirement (non-retirement) refers to observations with a retirement (non-retirement) turnover. In Panel A all banks with a turnover event in the sample period are considered. In Panel B (Panel C) only banks with a turnover event and an above-median (below-median) stock of risk provisions are considered. No of obs. reveals the number of banks with a turnover event from which the mean is derived. \*, \*\* and \*\*\* indicate significance at the 10%, 5% and 1% level, respectively.

*sions*). High values in this variable render it less likely that the incoming CEO merely incurs large amounts of discretionary expenses in response to insufficient past provisioning. Thus, observing extraordinary amounts of discretionary expenses during turnover years in this subsample as well may provide further tentative evidence suggesting the existence of big bath accounting. We report the results for banks with high and low risk provisions in Panel B and C of Table 3. For the subsample of *banks with low risk provisions*, we find none of the differences of discretionary expenses in the turnover and pre-turnover years to be significant. For *banks with high risk provisions*, however, we find pronounced effects. Discretionary expenses in the turnover year t are significantly higher than the ones in t-1, which indicates that incoming CEOs incur significantly larger amounts of discretionary expenses during the turnover year. Their rather high stock of risk provisions at the end of year t-1 renders the increase unlikely to be driven by risk provisioning considerations. This is even more true considering that the amount of discretionary expenses significantly decreases again during the post-turnover year t + 1. The objective of taking an earnings bath would, however, perfectly explain the observable pattern in discretionary expenses.

For banks with high risk provisions, we also find differences between insider and outsider turnovers as hypothesized in hypothesis 2 and between retirement and nonretirement turnovers as hypothesized in hypothesis 3. For insider turnovers, discretionary expenses increase by less than 0.06 between t - 1 and t. For outsider turnovers, the respective increase is almost 0.11. These numbers suggest that differences in additional discretionary expenses are higher for outsider turnovers than for insider turnovers. Moreover, we find that the amount of discretionary expenses almost returns to its pre-turnover year level in the year immediately following the turnover event for both outsider and insider turnovers. For retirement turnovers, discretionary expenses increase by less than 0.06 between t - 1 and t, while for non-retirement turnovers they increase by almost 0.11. It is noteworthy that, for non-retirement turnovers, discretionary expenses decrease by 0.093 between t and t + 1, which almost neutralizes the increase in discretionary expenses between t - 1 and t. Overall, these findings are indicative of the incoming CEO taking an earnings bath in his or her first partial year in charge by raising discretionary expenses in the short term only.

#### **3.4** Econometric model and controls

The differences in discretionary expenses between the turnover year and pre-turnover year may be a first indication of big bath accounting taking place during turnover events. However, in the previous analyses we did not control for the economic circumstances of banks experiencing a turnover event. Therefore, we put forward in the following an econometric model to measure big bath accounting more precisely. The dependent variable in this model is the aggregate discretionary expenses of bank i in year t,  $DISC^{TA}$ . To examine the effect of executive changes on discretionary expenses during turnover years, we use  $D_{-}TURN$ , which is a binary variable equaling 1 if a CEO turnover occurs at bank i in year t, and 0 otherwise. Equation (1) shows our baseline model, from which we derive all subsequent specifications:

$$DISC_{i,t}^{TA} = \beta_0 + \beta_1 \cdot D_- TURN_{i,t} + \beta_2 \cdot POSNDI_{i,t}^{TA} + \beta_3 \cdot NEGNDI_{i,t}^{TA} + \beta_4 \cdot CHOL_{i,t}^{TA} + \beta_5 \cdot NPL_{i,t-1}^{TA} + \beta_6 \cdot CHNPL_{i,t}^{TA}$$
(1)  
+  $\beta_7 \cdot RPROV_{i,t-1}^{TA} + \beta_8 \cdot LIM_{i,t-1}^{BASIS} + \beta_9 \cdot LNTA_{i,t} + \beta_{10} \cdot DISC_{i,t-1}^{TA} + \sum_{j=1}^{13} [\beta_{(10+j)} \cdot D_- (1995 + j)_t] + \mu_i + \epsilon_{i,t}.$ 

Next, we introduce our control variables, which contain measures of the bank's nondiscretionary income, its credit risk and its risk provisioning. We provide descriptive statistics of our control variables in Table 4, and display correlation coefficients in Table 5. We winsorize each continuous variable at the 1% and 99% percentile.

Variable	Mean	Std. Dev.	p1	p50	p99
$\overline{POSNDI_{i,t}^{TA} \text{ (in \%)}}$	0.84	0.39	0.00	0.84	1.79
$NEGNDI_{i,t}^{TA}$ (in %)	0.00	0.02	-0.20	0.00	0.00
$\overline{CHOL_{i,t}^{TA}}$ (in %)	2.37	4.54	-9.62	2.31	15.39
$NPL_{i,t-1}^{TA}$ (in %)	2.77	1.79	0.25	2.42	8.83
$CHNPL_{i,t}^{TA}$ (in %)	0.13	0.99	-2.13	-0.01	3.67
$RPROV_{i,t-1}^{TA}$ (in %)	3.89	1.55	0.82	3.75	8.16
$LIM_{i,t-1}^{BASIS} (in \%)$	1.86	1.14	0.02	1.71	4.00
ln(Total assets) (in billion euro)	20.92	1.00	18.89	20.87	24.42

Table 4: Descriptive statistics for continuous variables

Note: Mean (Std. Dev.) describes the mean (standard deviation) of each variable across all observations.  $p1 \ (p50 \text{ and } p99, \text{respectively})$  refers to the 1st (50th and 99th) percentile of the distribution of the corresponding variable.  $POSNDI_{i,t}^{TA}$  (NEGNDI<sub>i,t</sub><sup>TA</sup>) equals non-discretionary income (net income less aggregate discretionary expenses) if positive (negative) of bank *i* in year *t* as a percentage of its end-of-year total assets (TA) in t - 1.  $CHOL_{i,t}^{TA}$  is the change in the volume of the overall loan portfolio from year t - 1 to *t* as a percentage of TA at t - 1.  $NPL_{i,t}^{TA}$  is the volume of non-performing loans as a percentage of TA.  $CHNPL_{i,t}^{TA}$  is the change in the volume of non-performing loans from year t - 1 to *t* as a percentage of TA at t - 1.  $RPROV_{i,t}^{TA}$  denotes the aggregate stock of risk provisions (i.e. the loan loss allowance plus the level of 340f and 340g reserves) as a percentage of TA.  $LIM_{i,t}^{BASIS}$  is the level of 340f reserves as a percentage of TA.  $LNTA_{i,t}$  is the natural logarithm of TA.

The literature has identified that banks smooth their income by revealing a positive relationship between non-discretionary income and (various types of) discretionary expenses (e. g. Lobo and Yang (2001), Hasan and Wall (2004), Beatty et al. (1995), Collins et al. (1995), Shrieves and Dahl (2003), Bornemann et al. (2012)). Given highly positive non-discretionary income, managers incur high amounts of discretionary expenses. When non-discretionary income is low or even negative, managers incur low amounts of discretionary expenses or even realize discretionary gains. By doing so, they smooth their banks' income streams over time. Since the adjustment to positive non-discretionary income is non-discretionary income, we include positive (*POSNDI*<sup>TA</sup>) and negative (*NEGNDI*<sup>TA</sup>) non-discretionary income separately to capture banks' income smoothing behavior. The former (latter) equals bank *i*'s non-discretionary income as long as this is positive (negative), and 0 otherwise.

We use three variables to control for credit risk that may trigger a rise in discretionary expenses, particularly in LLP and LCO.  $CHOL^{TA}$  is the annual change in the ratio of overall (i. e. customer and interbank) loans to total assets in year t - 1. It captures changes in credit risk arising from an expansion of the loan portfolio.  $NPL^{TA}$ , which is the level of non-performing loans, and  $CHNPL^{TA}$ , being the annual change in nonperforming loans,<sup>3</sup> reflect changes in credit risk arising from changes in the quality of the loan portfolio. Positive values in  $CHOL^{TA}$  and  $CHNPL^{TA}$  are likely to trigger larger amounts of discretionary expenses, while the association between  $NPL^{TA}$  and  $DISC^{TA}$  is rather unclear.

To control for risk provisioning efforts, we use  $RPROV^{TA}$ , which is the aggregate stock of risk provisions (i. e. the loan loss allowance plus the level of 340f and 340g reserves) relative to total assets. High values of this variable render it less likely that large discretionary expenses are merely observable as a reaction to insufficient past provisioning. Thus, the association between  $RPROV^{TA}$  and  $DISC^{TA}$  should be negative. Further we control for  $LIM^{BASIS}$ , which is the level of 340f reserves as a percentage of the aggregate book value of the underlying assets. This variable controls for the possibility that managers of some banks may be restricted in exerting discretion. If a bank approaches the 4% limit

<sup>&</sup>lt;sup>3</sup> Following the Capital Requirements Directive (European Parliament (2006)), loans are nonperforming if the payment of principal or interest is overdue by at least 90 days.

on 340f reserves, it is unable to increase them any further. Therefore, we expect a negative correlation between this variable and discretionary expenses. Note, that the strong positive correlation between  $LIM^{BASIS}$  and  $RPROV^{TA}$  (see Table 5) does not affect the conclusions we draw from our empirical analyses.

We control for size effects by using the natural logarithm of total assets (*LNTA*) as it is frequently done in earnings management studies. However, we do not have any expectation as to the sign of the prevailing coefficient. We also include the first lag of our dependent variable as regressor since the recent literature reveals gradual adjustments over time with respect to LLP (e. g. Laeven and Majnoni (2003), Bikker and Metzemakers (2005), Pérez et al. (2008)) and 340f reserves (Bornemann et al. (2012)). Additionally, we include year dummy variables to capture time-specific effects.

To test how CEO turnovers impact on the banks' discretionary expenses reflected in the time variation of the data rather than in its cross-sectional one, we model a bank-specific effect  $\mu_i$  and let  $\epsilon_{i,t}$  denote a disturbance term. It is noteworthy that the bank-specific effect  $\mu_i$  controls as effectively as possible for all bank characteristics that do not change over our sample period. For instance, we do not control for the size of the board, because there is little to no variation in the size over our sample period. Also, this bank-specific effect  $\mu_i$  captures other governance structures, such as whether or not the bank has a risk committee in place, as long as these governance structures do not vary over our sample period.

We use the dynamic panel data estimator, which is a generalized method of moments estimator, proposed by Blundell and Bond (1998) with a finite sample correction following Windmeijer (2005) in all models. The estimation results will be consistent if we use appropriate instruments for the lag of the dependent variable and if there is no second-order autocorrelation present in the data. Therefore, we use the Hansen test of overidentifying restrictions (Arellano and Bond (1991), Blundell and Bond (1998)). Since this test can be weakened by many instruments (Roodman (2009)), we specify only a limited number of instruments. We use the same lag structure of instruments in all estimations throughout the paper. The tests for overidentifying restrictions and second-order autocorrelation indicate the instruments used to be valid and second-order autocorrelation to be absent. We modify our baseline model given in Equation (1) along two lines. Based on a bank's aggregate stock of risk provisions as a percentage of its non-performing loans, we first estimate the baseline model for the full sample and the subsamples of banks with high and low risk provisions. Second, to isolate differences between insider and outsider as well as between retirement and non-retirement turnovers, we split the turnover dummy variable into different subgroups.  $D_{-}TURN^{INS}$  ( $D_{-}TURN^{OUT}$ ) equals 1 if an insider (outsider) turnover occurs.  $D_{-}TURN^{RET}$  ( $D_{-}TURN^{NORET}$ ) equals 1 if a turnover is (not) due to a retiring incumbent. We do so in order to gain insights into hypotheses 2 and 3.

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	$D_TURN_{i,t}$	1											
(2)	$D_{-}TURN_{i,t}^{INS}$	$0.86^{*}$	1										
(3)	$D_{-}TURN_{i t}^{OUT}$	$0.48^{*}$	-0.03*	1									
(4)	$D_{-}TURN_{i}^{RET}$	$0.84^{*}$	$0.77^{*}$	$0.31^{*}$	1								
(5)	$D_{-}TURN_{i,t}^{NORET}$	$0.52^{*}$	$0.36^{*}$	$0.40^{*}$	-0.03*	1							
(6)	$POSNDI_{i,t}^{TA}$	-0.04*	-0.02	-0.04*	-0.02*	-0.03*	1						
(7)	$NEGNDI_{i,t}^{TA}$	-0.02	0.007	-0.04*	0.01	-0.05*	$0.33^{*}$	1					
(0)	· · · · · · · · · · · · · · · · · · ·	0.00	0.09*	0.00	0.01	0.01	0.00*	0.00*					
(8)	$CHOL_{i,t}^{TA}$	-0.02	-0.03*	0.02	-0.01	-0.01	$0.09^{*}$	-0.02*	1				
(9)	$NPL_{i,t-1}^{TA}$	-0.01	-0.03*	$0.03^{*}$	-0.02*	$0.02^{*}$	-0.1*	-0.1*	-0.05*	1			
(10)	$CHNPL_{i,t}^{TA}$	$0.03^{*}$	$0.02^{*}$	0.019	$0.02^{*}$	0.02	$0.16^{*}$	$0.05^{*}$	-0.02	-0.22*	1		
(11)	$RPROV_{i,t-1}^{TA}$	0.00	0.02	-0.03*	-0.01	0.01	$0.08^{*}$	-0.03*	-0.10*	$0.37^{*}$	-0.07*	1	
(12)	$LIM_{i,t-1}^{BASIS}$	0.01	$0.04^{*}$	-0.06*	$0.03^{*}$	-0.02*	$0.17^{*}$	$0.07^{*}$	-0.09*	-0.13*	-0.00	$0.70^{*}$	1
(13)	$LNTA_{i,t}$	0.03*	0.03*	0.00	0.04*	-0.01	-0.15*	0.01	-0.05*	-0.20*	-0.03*	-0.02*	-0.03*

Table 5: Correlations

Note: Pearson's correlation coefficients are reported.  $D_{-}TURN_{i,t}$  is a binary variable equaling 1 if a CEO turnover occurs in bank *i* in year *t*, and 0 otherwise.  $D_{-}TURN_{i,t}^{INS}$   $((D_{-}TURN_{i,t}^{OUT}))$  denotes insider (outsider) turnovers, and  $D_{-}TURN_{i,t}^{RET}$   $(D_{-}TURN_{i,t}^{NORET})$  denotes retirement (non-retirement) turnovers.  $POSNDI_{i,t}^{TA}$  ( $NEGNDI_{i,t}^{TA}$ ) equals non-discretionary income if *positive* (*negative*) of bank *i* in year *t* as a percentage of its end-of-year total assets (TA) in t - 1.  $CHOL_{i,t}^{TA}$  is the change in the volume of the overall loan portfolio from year t - 1 to *t* as a percentage of TA at t - 1.  $NPL_{i,t}^{TA}$  is the volume of non-performing loans as a percentage of TA.  $CHNPL_{i,t}^{TA}$  is the change in the volume of advance plus the level of 340f reserves as a percentage TA.  $LNTA_{i,t}$  is the natural logarithm of TA.

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# 4 Results

#### 4.1 CEO turnover effects

In Table 6, we present the results of our baseline model, estimated for the full sample (marked as All) as well as for subsamples of banks with high and low stock risk provisions separately. For the full sample, the positive and significant coefficient on  $D_-TURN$  reveals that incoming CEOs incur significantly higher amounts of discretionary expenses during turnover years, which lends support to hypothesis 1. For banks with high risk provisions relative to their non-performing loans, the corresponding coefficient is also significant and of similar size. The fact that incoming CEOs in banks with an above-median stock of risk provisions incur extraordinary amounts of discretionary expenses strengthens our conjecture of big bath accounting being at work. For banks with low risk provisions, the corresponding coefficient is significant and somewhat higher than for the subsample of banks with high risk provisions. This may either reveal efforts to take an earnings bath as well, or it may reflect the incoming CEO's need to rectify shortages in the existing stock of risk provisions or both.

The positive and strongly significant coefficients on  $POSNDI^{TA}$  and  $NEGNDI^{TA}$  are consistent with income smoothing behavior of banks absent any turnover events (e.g. Lobo and Yang (2001), Hasan and Wall (2004)), Beatty et al. (1995), Collins et al. (1995), Shrieves and Dahl (2003), Bornemann et al. (2012)). An additional unit of positive non-discretionary income leads to an additional 0.72 units of discretionary expenses. Likewise, an additional unit of negative non-discretionary income leads to a reduction of 1.27 units of discretionary expenses.<sup>4</sup> Thus, less discretionary expenses are incurred or even discretionary gains are realized in times of negative non-discretionary income. The difference in the coefficients on  $POSNDI^{TA}$  and  $NEGNDI^{TA}$  indicates that additional positive non-discretionary income is (only) partially set aside by means of discretionary expenses whereas additional negative non-discretionary income is overcompensated by re-

<sup>&</sup>lt;sup>4</sup> With respect to the interpretation of the coefficient on *NEGNDI*<sup>TA</sup>, it is important to note two particularities. First, all values of this variable are either 0 or negative. Second, we talk of an additional unit of negative non-discretionary income when referring to a change from e.g. -1 to -2 units. As a consequence, a positive coefficient on this variable indicates less discretionary expenses being incurred.

	Exp.	All	High	Low
$D_{-}TURN_{i,t}$	+	0.030***	0.030**	0.036***
		(0.009)	(0.013)	(0.013)
$POSNDI_{i,t}^{TA}$	+	0.717***	0.692***	0.744***
		(0.010)	(0.014)	(0.013)
$NEGNDI_{i,t}^{TA}$	+	$1.270^{***}$	$1.643^{***}$	$1.106^{***}$
·		(0.143)	(0.282)	(0.155)
$CHOL_{i,t}^{TA}$	+	-0.002***	-0.001*	-0.002***
		(0.001)	(0.001)	(0.001)
$NPL_{i,t-1}^{TA}$	?	$0.035^{***}$	$0.032^{***}$	$0.037^{***}$
		(0.004)	(0.006)	(0.005)
$CHNPL_{i,t}^{TA}$	+	$0.056^{***}$	$0.056^{***}$	$0.056^{***}$
		(0.004)	(0.006)	(0.005)
$RPROV_{i,t-1}^{TA}$	-	-0.006	0.002	-0.016**
DAGIG		(0.005)	(0.007)	(0.008)
$LIM_{i,t-1}^{BASIS}$	-	-0.043***	-0.040***	-0.050***
		(0.007)	(0.009)	(0.010)
$LNTA_{i,t}$	?	0.017***	0.002	0.027***
		(0.005)	(0.007)	(0.006)
$DISC_{i,t-1}^{TA}$	+	0.057***	0.040**	0.066***
		(0.013)	(0.018)	(0.018)
Year dummies		included v	without being	g reported
No. of obs.		7,102	3,555	3,547
No. of banks		692	328	364
No. of instrume	ents	28	28	28
AR(1) test (p-v	alue)	0.000	0.000	0.000
AR(2) test (p-v	alue)	0.977	0.417	0.330
Hansen test (p-	value)	0.325	0.558	0.529

Table 6:CEO turnover effects

Note: Coefficient estimates from dynamic panel estimations with Windmeijer (2005) corrected standard errors given in brackets below the coefficients. The model is given by  $DISC_{i,t}^{TA} = \beta_0 + \beta_1 \cdot D_-TURN_{i,t} + \beta_2 \cdot POSNDI_{i,t}^{TA} + \beta_3 \cdot NEGNDI_{i,t}^{TA} + \beta_4 \cdot CHOL_{i,t}^{TA} + \beta_5 \cdot NPL_{i,t-1}^{TA} + \beta_6 \cdot CHNPL_{i,t}^{TA} + \beta_7 \cdot RPROV_{i,t-1}^{TA} + \beta_8 \cdot LIM_{i,t}^{BASIS} + \beta_9 \cdot LNTA_{i,t} + \beta_{10} \cdot DISC_{i,t-1}^{TA} + \sum_{j=1}^{13} [\beta_{(10+j)} \cdot D_{-}(1995 + j)_t] + \mu_i + \epsilon_{i,t}$ .  $D_-TURN_{i,t}$  is a binary variable equaling 1 if a CEO turnover occurs in bank *i* in year *t*, and 0 otherwise.  $POSNDI_{i,t}^{TA}$  ( $NEGNDI_{i,t}^{TA}$ ) equals non-discretionary income if *positive* (*negative*) of bank *i* in year *t* as a percentage of its end-of-year total assets (TA) in t - 1.  $CHOL_{i,t}^{TA}$  is the change in the volume of the overall loan portfolio from year t - 1 to *t* as a percentage of TA at t - 1.  $NPL_{i,t}^{TA}$  is the volume of non-performing loans as a percentage of TA.  $CHNPL_{i,t}^{TA}$  is the change in the volume of non-performing loans from year t - 1 to *t* as a percentage of TA at t - 1.  $RPROV_{i,t}^{TA}$  denotes the aggregate stock of risk provisions (i.e. the loan loss allowance plus the level of 340f and 340g reserves) as a percentage of TA.  $LIM_{i,t}^{BASIS}$  is the level of 340f reserves as a percentage of TA.  $LNTA_{i,t}$  is the natural logarithm of TA. All considers all observations in the sample. High (Low) considers only observations with an above-median (below-median) stock of risk provisions. \*, \*\* and \*\*\* indicate significance at the 10\%, 5\% and 1\% level, respectively.

ductions in discretionary expenses. This asymmetric effect resembles an observation also made by Balboa and Rubia (2013).

The effects of the variables measuring credit risk are broadly consistent with the findings in the literature. An increase in the volume of the loan portfolio,  $CHOL^{TA}$ , is associated with lower discretionary expenses for banks with low as well as high risk provisions. As these partly consist of annual LLP, this is surprising at first sight. Previous studies on loan loss provisioning (e.g. Laeven and Majnoni (2003), Gebhardt and Novotny-Farkas (2011)) conjecture their similar finding to indicate procyclical provisioning behavior. As our aggregate of discretionary expenses comprises several additional components, this result could also have other reasons. For example, some banks may substitute assets in their loan portfolio with securities. If those subsequently lose value (which would be reflected in a negative value of  $SGL^{TA}$ ), this would yield such a negative association. The positive and significant coefficients on  $CHNPL^{TA}$  for banks with low as well as high risk provisions show that a rise in the volume of non-performing loans is accompanied by larger discretionary expenses.

A high level of risk provision in the previous year  $(RPROV^{TA})$  is associated with less discretionary expenses only if banks have a below-median value of risk provisions relative to their non-performing loans, while  $LIM^{BASIS}$ , which also impacts negatively on discretionary expenses, is likewise significant for banks with low as well as high risk provisions. The significantly positive coefficient on LNTA aligns with findings on LLP (e.g. Alali and Jaggi (2011)). However, in our sample, significant size effects are only present for banks with low risk provisions and not for banks with high risk provisions. Finally, the significant and positive coefficient on the lagged dependent variable reveals a gradual adjustment of discretionary expenses to occur. We note that the effects of our control variables do not change much across our various model specifications presented in the following, which allow us to refrain from commenting on these again.

#### 4.2 Effects of different turnover characteristics

We now turn to investigating differences in the incoming CEO's propensity for taking an earnings bath between insider and outsider as well as between retirement and nonretirement turnovers. Following our considerations in Section 2, an inside successor as well as one succeeding a retiring CEO should have lower incentives as well as limited abilities to engage in big bath accounting during the turnover year than outside successors or those following a non-retiring CEO. Table 7 presents the results of our examination along these two lines of arguments, each of the models being estimated for the full sample as well as for the subsamples of banks with high and low stocks of risk provisions. In Model A, we replace the turnover dummy variable  $D_{-}TURN$  in Equation (1) with one indicating an insider  $(D_{-}TURN^{INS})$  and another indicating an outsider turnover  $(D_{-}TURN^{OUT})$ . For the full sample, both corresponding coefficients are positive and significant, with the one on outsider turnovers exceeding its inside counterpart by far. According to a Wald test, the difference in the size of the coefficients is significant at the 5% level. Thus, we find the amount of discretionary expenses incurred during turnover years to be higher than during non-turnover years, with the magnitude of this difference being larger for outsider than for insider turnovers. Apparently, the outside successors' propensity for incurring discretionary expenses during turnover years is higher than that of insiders appointed as CEO. This strongly supports hypothesis 2.

For the subsample of banks with high risk provisions, the amount of discretionary expenses incurred during turnover years is significantly different to that during non-turnover years, though only for outsider turnovers. Insider successors at banks with relatively high risk provisions apparently do not engage in big bath accounting. Their ability to blame their predecessors for poor decision-making in the past, which is already limited as a result of their former position within the bank, is narrowed further by an existing high stock of risk provisions. The results for the subsample of banks with low risk provisions resemble those of the full sample. Incoming CEOs in insider and outsider turnovers incur significantly larger amounts of discretionary expenses. However, this difference is insignificant for banks with low risk provisions, while it is significant for banks with high risk provisions.

In Model B, we replace the general turnover dummy  $D_{-}TURN$  with one indicating a retirement  $(D_{-}TURN^{RET})$  and another one denoting a non-retirement  $(D_{-}TURN^{NORET})$  turnover. In the full sample, both coefficients are, as expected, positive and significant. However, the two coefficients do not differ from each other significantly. For the subsample of banks with high risk provisions, we find that managers of those banks to incur significantly larger discretionary expenses during non-retirement turnovers, but not during retirement ones. The results for banks with low risk provisions indicate that successors of CEOs leaving office but not retiring incur larger amounts of discretionary expenses during turnover years. In a nutshell, the results for retirement versus non-retirement turnovers

do correspond to our expectations as expressed in hypothesis 3 but only for banks with high risk provisions.

In Model C, we investigate the influence of insider and outsider as well as retirement and non-retirement turnovers at a time. To do so, we include all four possible combinations between  $D_{-}TURN^{INS}$  and  $D_{-}TURN^{OUT}$  on the one hand as well as  $D_{-}TURN^{RET}$  and  $D_{-}TURN^{NORET}$  on the other. Using the arguments from Section 2, we expect the most pronounced earnings bath effect for outsider non-retirement turnovers since these two characteristics of a turnover provide the incoming CEO with the strongest incentives and the best case for taking an earnings bath. We expect the weakest earnings bath effect for insider retirement turnovers; the effects of the other two turnover type combinations are expect between these two extremes.

	Model	А		В			$\mathbf{C}$			
	Exp.	All	High	Low	All	High	Low	All	High	Low
$D_{-}TURN_{i,t}^{INS}$	+	$0.017^{*}$ (0.010)	0.015 (0.013)	$0.027^{*}$ (0.015)						
$D\_TURN_{i,t}^{OUT}$	+	(0.010) $0.068^{***}$ (0.022)	(0.010) $0.094^{**}$ (0.040)	(0.010) $0.056^{**}$ (0.022)						
$D\_TURN_{i,t}^{RET}$	+	(0.022)	(0.040)	(0.022)	$0.024^{**}$ (0.010)	0.015 (0.013)	$0.040^{**}$ (0.016)			
$D_{-}TURN_{i,t}^{NORET}$	+				(0.010) $0.045^{**}$ (0.019)	(0.013) $0.082^{**}$ (0.034)	(0.010) 0.028 (0.020)			
$D_{-}TURN_{i,t}^{INS} \times D_{-}TURN_{i,t}^{RET}$	+							0.016 (0.011)	0.011 (0.013)	0.029 (0.019)
$D_{-}TURN_{i,t}^{OUT} \times D_{-}TURN_{i,t}^{RET}$	+							0.054**	0.036	0.070**
$D_{-}TURN_{i,t}^{INS} \times D_{-}TURN_{i,t}^{NORET}$	+							(0.025) 0.020	(0.042) 0.034	(0.029) 0.022
$D_TURN_{i,t}^{OUT} \times D_TURN_{i,t}^{NORET}$	+							(0.020) $0.086^{**}$	(0.035) $0.167^{**}$	(0.022) 0.037
$POSNDI_{i,t}^{TA}$	+	0.717***	0.692***	0.745***	0.717***	0.692***	0.744***	(0.038) $0.717^{***}$	(0.071) $0.693^{***}$	(0.035) $0.745^{***}$
$NEGNDI_{i,t}^{TA}$	+	(0.010) $1.272^{***}$	(0.014) $1.638^{***}$	(0.013) 1.109***	(0.010) $1.274^{***}$	(0.014) $1.642^{***}$	(0.013) $1.104^{***}$	(0.010) $1.276^{***}$	(0.014) $1.624^{***}$	(0.013) 1.103***
$CHOL_{i,t}^{TA}$	+	(0.143) -0.002***	(0.279) - $0.001^*$	(0.156) -0.002***	(0.144) -0.002***	(0.280) -0.001*	(0.155) - $0.002^{***}$	(0.144) -0.002***	(0.274) -0.001*	(0.155) -0.002**
$NPL_{i,t-1}^{TA}$	?	(0.001) $0.034^{***}$	(0.001) $0.032^{***}$	(0.001) $0.037^{***}$	(0.001) $0.035^{***}$	(0.001) $0.033^{***}$	(0.001) $0.037^{***}$	(0.001) $0.034^{***}$	(0.001) $0.032^{***}$	(0.001) $0.037^{**}$
$CHNPL_{i,t}^{TA}$	+	(0.004) $0.056^{***}$ (0.004)	(0.006) $0.056^{***}$ (0.006)	(0.005) $0.056^{***}$ (0.005)	(0.004) $0.056^{***}$ (0.004)	(0.006) $0.056^{***}$ (0.006)	(0.005) $0.056^{***}$ (0.005)	(0.004) $0.056^{***}$ (0.004)	(0.006) $0.056^{***}$ (0.006)	(0.005) $0.056^{***}$ (0.005)

								(	continued fro	om page <b>26</b> )
$RPROV_{i,t-1}^{TA}$	_	-0.006	0.002	-0.016**	-0.006	0.001	-0.016**	-0.006	0.001	-0.016**
		(0.005)	(0.007)	(0.008)	(0.005)	(0.007)	(0.008)	(0.005)	(0.007)	(0.008)
$LIM_{i,t-1}^{BASIS}$	_	-0.043***	-0.040***	-0.050***	-0.043***	-0.040***	-0.050***	-0.043***	-0.040***	-0.050***
		(0.007)	(0.009)	(0.010)	(0.007)	(0.009)	(0.010)	(0.007)	(0.009)	(0.010)
$LNTA_{i,t}$	?	$0.017^{***}$	0.002	$0.027^{***}$	$0.017^{***}$	0.002	$0.027^{***}$	$0.017^{***}$	0.002	$0.027^{***}$
		(0.005)	(0.007)	(0.006)	(0.005)	(0.007)	(0.006)	(0.005)	(0.007)	(0.006)
$DISC_{i,t-1}^{TA}$	+	0.058***	0.042**	0.066***	0.057***	0.040**	0.066***	0.058***	0.042**	0.066***
0,0 1		(0.013)	(0.018)	(0.018)	(0.013)	(0.018)	(0.018)	(0.013)	(0.017)	(0.018)
Year dummies					included	without bein	g reported			
No. of obs.		7,102	3,555	3,547	7,102	3,555	3,547	7,102	3,555	$3,\!547$
No. of banks		692	328	364	692	328	364	692	328	364
No. of instruments		29	29	29	29	29	29	31	31	31
AR(1) test (p-value)		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AR(2) test (p-value)		0.957	0.524	0.315	0.988	0.430	0.334	0.947	0.541	0.321
Hansen test (p-value)		0.344	0.589	0.543	0.340	0.635	0.524	0.354	0.667	0.541

Table 7: Effects of different turnover characteristics

Note: Coefficient estimates from dynamic panel estimations with Windmeijer (2005) corrected standard errors given in brackets below the coefficients. Model A is given by  $DISC_{i,t}^{TA} = \beta_0 + \beta_{1a} \cdot D_{-}TURN_{i,t}^{INS} + \beta_{1b} \cdot D_{-}TURN_{i,t}^{OUT} + \beta_2 \cdot POSNDI_{i,t}^{TA} + \beta_3 \cdot NEGNDI_{i,t}^{TA} + \beta_4 \cdot CHOL_{i,t}^{TA} + \beta_5 \cdot NPL_{i,t-1}^{TA} + \beta_6 \cdot CHNPL_{i,t}^{TA} + \beta_7 \cdot RPROV_{i,t-1}^{TA} + \beta_8 \cdot LIM_{i,t-1}^{BASIS} + \beta_9 \cdot LNTA_{i,t} + \beta_{10} \cdot DISC_{i,t-1}^{TA} + \sum_{j=1}^{13} [\beta_{(10+j)} \cdot D_{-}(1995 + j)_t] + \mu_i + \epsilon_{i,t}$ . In Model B, the dummy variables for an insider  $(D_{-}TURN_{i,t}^{INS})$  and outsider turnover  $(D_{-}TURN_{i,t}^{OUT})$  are replaced by dummy variables for retirement  $(D_{-}TURN_{i,t}^{RET})$  and non-retirement turnovers  $(D_{-}TURN_{i,t}^{NORET})$ . In Model C, the four possible interactions between the insider/outsider and the retirement/non-retirement indicators are included.  $POSNDI_{i,t}^{TA}$  (NEGNDI\_{i,t}^{TA}) equals non-discretionary income if positive (negative) of bank *i* in year *t* as a percentage of its end-of-year total assets (TA) in t-1.  $CHOL_{i,t}^{TA}$  is the change in the volume of the overall loan portfolio from year t-1 to *t* as a percentage of TA at t-1.  $NPL_{i,t}^{TA}$  is the volume of non-performing loans as a percentage of TA.  $CHNPL_{i,t}^{TA}$  is the change in the volume of non-performing loans from year t-1 to *t* as a percentage of TA.  $LIM_{BASIS}^{BASIS}$  is the level of 340f reserves) as a percentage of TA.  $LIM_{i,t}^{BASIS}$  is the level of 340f reserves) as a percentage of TA.  $LNTA_{i,t}$  is the natural logarithm of TA. All considers all observations in the sample. High (Low) considers only observations with an above-median (below-median) stock of risk provisions. \*, \*\* and \*\*\* indicate significance at the 10\%, 5\% and 1\% level, respectively.

For the full sample, all corresponding coefficients are positive but only outsider retirement and outsider non-retirement turnovers are statistically significant. The largest amount of income-decreasing discretionary expenses is incurred during non-retirement turnovers in which the successor is recruited from outside the bank, followed by retirement turnovers with outsider succession. Both may indicate the huge potential for outsiders to take an earnings bath. Considering banks with high risk provisions, the coefficient on outsider non-retirement turnovers is still the largest one and the only one that differs significantly from zero. Retirement turnovers with outsider succession are not, as in the full sample, characterized by larger amounts of discretionary expenses. For banks with low risk provisions, only the coefficient on the outsider retirement turnovers is statistically significant, while all other types lack statistical significance.

#### 4.3 Model extension and robustness

To corroborate our results presented so far, we put forward one extension and several robustness checks. Our extension deals with the timing of the turnover event. We conjecture that the incoming CEO's incentives for exerting discretion should be affected differently, depending on whether the turnover occurs during the corresponding year or at its end. In the case of a mid-year turnover, the successor heads the bank during the final months of the turnover year. This is the time when most decisions on discretionary expenses are made. By contrast, for year-end turnovers the incoming CEO is not yet in charge of the bank's operations during these months. Even though he or she may still influence the preparation of the financial statements during his or her first months in charge (i.e. at the beginning of the subsequent year), the incoming CEO's potential for revising decisions made by his or her incumbent are certainly limited in the case of year-end turnovers. This particularly holds looking at SGL as one part of our discretionary expenses measure. A CEO joining the bank right at the start of the post-turnover year is unable to attribute discretionary losses to the turnover year by selling securities (and thus incurring SGL). That CEO is instead restricted to incurring discretionary expenses from LLP, LCO and changes in 340f and 340g reserves only.

We note that in a year-end turnover, the successor may, for this reason, try to use the post-turnover year for incurring extraordinary amounts of discretionary expenses.

Incentives for doing so may be limited for the following reason. As the incoming CEO will be heading the bank throughout the full year, the assessment of his or her managerial ability is – in contrast to mid-year turnovers – likely to be based on the bank's performance during the corresponding accounting period.

	Exp.	All	High	Low
$D_{-}TURN_{i,t}^{MID}$	+	0.042***	0.033**	0.057***
		(0.011)	(0.015)	(0.015)
$D_{-}TURN_{i,t}^{END}$	+	0.020	0.035	0.007
<i>MID</i>	_	(0.019)	(0.026)	(0.026)
$D_{-}TURN_{i,t-1}^{MID}$	?	0.014*	0.010	0.017
D. TITLE IN FND		(0.008)	(0.012)	(0.011)
$D_{-}TURN_{i,t-1}^{END}$	+	0.020	0.010	0.033
		(0.015)	(0.021)	(0.022)
$POSNDI_{i,t}^{TA}$	+	0.717***	$0.692^{***}$	$0.745^{***}$
1,1		(0.010)	(0.014)	(0.013)
$NEGNDI_{i,t}^{TA}$	+	1.267***	1.638***	1.097***
.,.		(0.143)	(0.281)	(0.154)
$CHOL_{i,t}^{TA}$	+	-0.002***	-0.001	-0.002***
<b>T</b> 1		(0.001)	(0.001)	(0.001)
$NPL_{i,t-1}^{TA}$	?	$0.034^{***}$	0.032***	0.037***
arrest TA		(0.004)	(0.006)	(0.005)
$CHNPL_{i,t}^{TA}$	+	0.056***	0.056***	$0.056^{***}$
		(0.004)	(0.006)	(0.005)
$RPROV_{i,t-1}^{TA}$	_	-0.006	0.002	-0.016**
D A GLG		(0.005)	(0.007)	(0.008)
$LIM^{BASIS}_{i,t-1}$	_	-0.043***	-0.041***	-0.050***
	9	(0.007)	(0.009)	(0.010)
$LNTA_{i,t}$	?	$0.017^{***}$ (0.005)	0.001 (0.007)	$0.027^{***}$ (0.006)
		(0.003)	(0.007)	(0.000)
$DISC_{i,t-1}^{TA}$	+	$0.056^{***}$	$0.040^{**}$	$0.065^{***}$
.,		(0.013)	(0.018)	(0.018)
Year dummies		included v	without being	g reported
No. of obs.		7,102	3,555	3,547
No. of banks		692	328	364
No. of instrume		31	31	31
AR(1) test (p-va		0.000	0.000	0.000
AR(2) test (p-va		$0.968 \\ 0.346$	0.436	0.296
Hansen test (p-v	varuej	0.340	0.563	0.571

Table 8: Mid-year versus year-end turnovers

Note: Coefficient estimates from dynamic panel estimations with Windmeijer (2005) corrected standard errors given in brackets below the coefficients. The model is given by  $DISC_{i,t}^{TA} = \beta_0 + \beta_{1c} \cdot D_{-}TURN_{i,t}^{MID} + \beta_{1d} \cdot D_{-}TURN_{i,t}^{END} + \beta_{1e} \cdot D_{-}TURN_{i,t-1}^{MID} + \beta_{1f} \cdot D_{-}TURN_{i,t-1}^{END} + \beta_2 \cdot POSNDI_{i,t}^{TA} + \beta_3 \cdot NEGNDI_{i,t}^{TA} + \beta_4 \cdot CHOL_{i,t}^{TA} + \beta_5 \cdot NPL_{i,t-1}^{TA} + \beta_6 \cdot CHNPL_{i,t}^{TA} + \beta_7 \cdot RPROV_{i,t-1}^{TA} + \beta_8 \cdot LIM_{i,t-1}^{BASIS} + \beta_9 \cdot LNTA_{i,t} + \beta_{10} \cdot DISC_{i,t-1}^{TA} + \sum_{j=1}^{13} [\beta_{(10+j)} \cdot D_{-}(1995 + j)_{i}] + \mu_i + \epsilon_{i,t}.$  $D_{-}TURN_{i,t}^{MID}$  equals 1 if the turnover takes place in the mid of year t, while  $D_{-}TURN_{i,t}^{END}$  is 1 if the turnover takes place at the end of year t.  $POSNDI_{i,t}^{TA}$  ( $NEGNDI_{i,t}^{TA}$ ) equals non-discretionary income if positive (negative) of bank i in year t as a percentage of its end-of-year total assets (TA) in t - 1.  $CHOL_{i,t}^{TA}$  is the change in the volume of the overall loan portfolio from year t - 1 to t as a percentage of TA at t - 1.  $NPL_{i,t}^{TA}$  is the volume of non-performing loans as a percentage of TA.  $CHNPL_{i,t}^{TA}$  denotes the aggregate stock of risk provisions (i. e. the loan loss allowance plus the level of 340f and 340g reserves) as a percentage of TA.  $LIM_{i,t}^{BASIS}$  is the level of 340f reserves as a percentage of TA.  $LINTA_{i,t}$  is the natural logarithm of TA. All considers all observations in the sample. High (Low) considers only observations with an above-median (below-median) stock of risk provisions. \*, \*\* and \*\*\* indicate significance at the 10%, 5% and 1% level, respectively. To examine differences in big bath accounting between mid-year and year-end turnovers, we split the turnover dummy into  $D_{-}TURN^{MID}$  (indicating a mid-year turnover) and  $D_{-}TURN^{END}$  (referring to a year-end CEO change). We also check whether incoming CEOs – particularly during year-end turnovers – use the post-turnover year rather than the turnover year for taking an earnings bath. To do so, we include the one year-lagged mid-year and year-end turnover indicators in our models. 360 of the total of 518 turnover events occur during the year, and 158 at year-end. While mid-year and year-end turnovers do not differ significantly with respect to the percentage of incoming CEOs from outside the bank, they do differ to the extent that the incumbent CEO retires in 74% of mid-year turnovers and in only 63% of year-end turnovers.

In Table 8, we present the results for the full sample as well as the subsamples of banks with high and low risk provisions. Mid-year turnover observations exhibit significantly larger amounts of discretionary expenses in the full sample and in both subsamples than non-turnover observations. The insignificant coefficients on the one year-lagged mid-year and year-end turnover indicators for banks with high risk provisions are worth noting, because CEOs who are appointed not before year-end apparently use neither the turnover nor the post-turnover year for taking an earnings bath. As big bath accounting apparently takes place during mid-year turnovers only, bank owners are able to limit the extent to which the incoming CEO is able to exert discretion by scheduling the executive changes around the end of the year, if possible. In this case, the leeway available to the incoming CEO excludes the use of SGL and merely include using LLP, LCO and changes in 340f and 340g reserves.

We perform four robustness checks, the results of which are not reported in detail here, but are available upon request. The first one deals with the risk provisioning classification of banks. Using the median value of the ratio of risk provisions to non-performing loans to distinguish between banks with high and low risk provisioning may be misleading, because an incoming CEO at a bank with above-median risk provisioning might still have incentives to increase discretionary expenses for purely risk provisioning considerations. We therefore checked whether we find big bath accounting effects for banks whose risk provisioning is above the 66th percentile value of the risk provisioning distribution. We find our previously discussed results confirmed: a CEO appointed at a bank with very high risk provisioning relative to non-performing loans, especially when he or she comes from outside the bank, shows extraordinary amounts of discretionary expenses in his or her first year of stewardship.

Next, we check whether our findings are confirmed for large and small banks. We split the sample according to the median value of total assets and find that both large and small banks show effects that are in line with taking an earnings bath. Irrespective of whether or not a CEO is appointed at a small or large bank, he or she shows extraordinary amounts of discretionary expenses in his or her first year of stewardship.

Our third robustness check refers to findings in the literature that a company's performance is strongly associated with the likelihood of a change in the top executive's position (e. g. Denis and Denis (1995), Schaeck et al. (2012)). Moreover, an inverse relationship between this performance and the likelihood of outside succession has been revealed (e. g. Parrino (1997)). Thus, the turnover dummy in our baseline model might be endogenous. To check whether this endogeneity drives our results, we re-estimate our models and include the age of the CEO as an additional instrument, which is likely to be exogenous. The results of the baseline model do not change much and we merely note that the pvalues of the Hansen test increase, especially for banks with high risk provisions. Hence, using this additional instrument increases the validity of our instruments.

As a fourth robustness check, we exclude banks that do not experience a single turnover event through the whole study period from our sample. This is meant to test whether cross-sectional differences between these banks and those having at least one CEO change drive our findings. We moreover restrict the number of observations for each bank in the sample to five, ranging from two years prior to two years following the turnover year. We do so in order to focus on the development of discretionary expenses in turnover years as well as in those shortly before and after these events. Since the maximum number of observations for each bank is five, we exclude the lagged dependent variable from the models, use traditional fixed effect estimations and re-estimate all our models. As we observe no changes in the signs of the coefficients, and only moderate changes in their magnitudes, this robustness check also confirms our findings.

# 5 Conclusions

We investigated whether incoming CEOs in banks incur extraordinary amounts of discretionary expenses during their first partial year in charge. Taking an earnings bath saves income for future periods and it reduces net income in the turnover year, and thus lowers the earnings benchmark to be achieved during subsequent years. As such, big bath accounting is meant to mitigate top executives' job security concerns. However, extraordinary amounts of discretionary expenses are not necessarily indicative of big bath accounting, because an incoming CEO may merely incur discretionary expenses in order to rectify shortages in the bank's risk provisioning rather than to engage in big bath accounting strategies. We dealt with this by differentiating between banks with an above- and a below-median stock of existing risk provisions relative to their risk exposures. The former are unlikely to have any need to rectify insufficient past provisioning. In turn, this makes big bath accounting considerations more likely to represent a conclusive explanation for observing extraordinary amounts of discretionary expenses.

Our research took the following routes. First, we examined whether incoming CEOs take an earnings bath during turnover events regardless of their specific circumstances. We indeed found that successors incur extraordinary amounts of discretionary expenses even at banks with an above-median stock of existing risk provisions. Second, we investigated whether insiders (who share an employment history with the bank) have lower incentives for reducing a bank's net income during turnover years than outsiders, because insiders have limited abilities to exclusively blame their predecessors for poor past decision-making. With the amount of discretionary expenses incurred during turnover years being larger for outsider than for insider turnovers, we found that our conjecture held true. Third, we tested whether the extent of big bath accounting is less pronounced in turnovers in which the incumbent CEO retires than in cases in which he or she leaves for other reasons. A predecessor leaving for other reasons (e.g. contract expiration, resignation or dismissal) may be more easily blamed for poor past performance than a retiring CEO. We found this conjecture to hold true for banks with high risk provisions. Finally, we provided results on an interesting extension. This extension indicates that bank owners may be able to successfully limit the incoming CEO's propensity for taking an earnings bath by

scheduling the executive change around the end of a year rather than at mid-year. In year-end turnovers, the incoming CEO lacks the ability to time transactions for incurring discretionary expenses, and his or her scope for engaging in big bath accounting are limited to using loan loss provisions and loan charge-offs as well as changes in 340f and 340g reserves, not allowing to use securities gains and losses as another instrument.

Our empirical investigation is subject to one potential weakness, which may equally be interpreted as one of its strengths. As we acknowledge in Section 2, the literature frequently argues that differences in big bath accounting are more pronounced between routine and non-routine turnovers rather than between retirement and non-retirement ones. However, in contrast to the vague criteria used to separate routine and non-routine turnover events in previous studies, our separation between retirement and non-retirement turnovers is rather objective and reliable. Therefore, we decided to stick to the investigation of differences between these two types of turnovers rather than replicating ideas already presented in the literature. It would certainly be insightful to be able to further differentiate between different types of non-retirement turnovers, such as CEO resignations or dismissals on the one hand and CEOs leaving to join the management of larger or more well-known banks on the other.

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