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Earnings Management and Banks Performance: Evidence from Europe

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Abstract *The primary purpose of this study is to examine whether earnings management affects banks' current and future performance. It analyses the relationship between discretionary loan loss provision and both return on assets (ROA) and return on equity (ROE). Using a sample consists of 477 bank-year observations that representing 55 European banks over the period from 2001 to 2015, we provide new evidence that European banks with high levels of earnings management that occurs via discretionary loan loss provision experience inferior performance (measured via ROA and ROE) in the current and subsequent years. Our results show that the negative impact of earnings management (which takes place in a specific year) feeds through into the following years. The results of the analysis emphasis the important implication to many interested parties across the European Union such as regulators, investors, audit firms, and standards setters who aim to improve the financial reporting quality in the banking industry.*

Key words Loan Loss Provision, Discretionary Loan Loss Provision, Performance, European Banks, Return On Assets, Return On Equity

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1. Introduction

Corporate governance literature investigates the determinant of corporate performance. A major issue in this strand of literature is the influence of earning management. Earnings, which are typically called "bottom line" or "net income," are an important item in the firm's income statements (Akram *et al*., 2015). Earnings are considered a summary measure that shows the financial stability, profitability, and the strength of any company in the market. Earning figures are used in many aspects by external and internal users as a signal for performance. For example, earnings figures are used in managers' compensation plans, in debt covenants, and by investors and creditors (Tabassum *et al*., 2014; Dechow, 1994). Accounting and finance literature have investigated earnings management through manipulation of firms' accounting earnings.

Earnings management is defined as a tools or process that is used in accordance with constraints of Generally Accepted Accounting Principles (GAAP) by insiders to manipulate earnings or to alter the reported number against the interest of outsiders (Cimini, 2015; Healy and Wahlen, 1999; Schipper, 1989). However, firms use earning management only if there are opportunities to do so (Teoh *et al*., 1998). The main goal of earning management is normally income smoothing. Firms may use different earning management strategies to achieve this goal. In one hand, firms' managers attempt to reduce reported earning when the previous reported earnings are high. In the other hand, firms' managers attempt to increase the reported earnings when the previous reported earnings are low (Tabassum *et al*., 2014; Zang, 2012). Moreover, executive use earnings management to maintain good performance and to achieve some personal contractual goals that are tied to reported accounting figures (El Sood, 2012; Goulart, 2007).

Executives may increase or decrease the reported income to demonstrate the firm's performance and obtain higher compensation related to the future sock performance of the firm. Therefore, earnings management practice can be beneficial or harmful for the firm's performance based on how managers employ it (Bornemann *et al*., 2012).

Earning management practice has an important effect on a firm's profitability and performance. Examining the association between earning management and performance is essential because financial profitability and performance are the main source of information for external users and investors.

There are numerous researches put the light on the importance of investigating the practice of income manipulation towards the market opportunities as a factor affects firm's performance. However, the relationship between earnings management and the performance of the organization were discussed in different countries with different factors. To know whether there exists any association among these two variables, this study would provide the empirical evidence using a sample of European banks. This study use loan loss provision as a proxy for earning management which is consider the largest accrual for large banks and thus plays a significant role in earnings management (Kanagaretnam *et al.,* 2010).

After the last financial crisis, the demand for research in the area of the reasons for manipulating accounting figures and their effects on firms' stability to prevent future scandals are raised (Ardekani *et al.,* 2012). Indeed, earnings management has recently gained increasing attention among researcher after the last financial crisis (Filipa and Raffournierb, 2014; Cimini, 2015; Debnath, 2017).

2. Literature review and hypothesis development

According to agency theory of (Jensen and Meckling, 1976), the separation between managers as an agent of the firm from owners (shareholders) creates a clash between interests of management and shareholders. Managers normally try to exploit their personal interest even at the expense of shareholders. This conflict of interest between managers and shareholders gives birth to the earnings management which affects the disclosure of financial statements. The managers are reasonable about preparing financial statements, so they exercise their discretionary powers when they report the earnings to influence firm's performance which can benefits their personal interest. Mangers use earnings management to manipulate financial reported figures and this practice affects economic performance of the firm (Healy and Wahlen, 1999). Accordingly, earnings management can be beneficial or harmful for the firm's performance based on how executives employ it.

Several studies examine the relationship between earning management practice and firms' performance for nonfinancial firms. However, there is mixed evidence in the literature regarding the relationship between firm performance and earnings management (Debnath, 2017). Gill *et al.* (2013) find that earnings management practice is negatively related to firm value as measured by return on assets.

Ardekani *et al*. (2012) investigate the association between acquisition, earnings management, and firm's performance in Malaysian firms during period of 2004-2010. Their results show that earnings management activities are negatively correlated with firms' financial performance subsequent acquisition date for share acquirer firms. Bhojraj *et al.* (2009) document evidence that firms engaged earning management activity have a worse performance in the stock market. Taylor and Xu (2010) argue that firms try to avoid earning management activities when these activities damage the future value of the company.

A long line of literature documents positive linkage between earning management and firms' performance. For example, Lee *et al.* (2006) use a sample of 67 nonfinancial firms from 1988 to 2001 to investigate the relationship between earning management and firms' performance. They show that the mount of managed earnings has positive association with firm's performance and growth. The results show that firms with higher performance increase reported earnings. However, they find negative association between reported earnings and expected growth.

Dechowet *et al.* (1995) and Kasznik (1999) demonstrate that earning management as measured using discretionary accruals are positively correlated with firm performance. McNichols (2000) also find positive association between discretionary accruals and analysts' forecasts of long-term earnings growth.

Previous studies in banking industry suggest a positive association between a financial firm's expenses and earnings, which show that banks seek income smoothing (Bortoluzzo *et al*., 2007). Anandarajan *et al.* (2003) and El Sood (2012) found evidence of earning management by using loan loss provisions. Banks use more earning management through spending more in order to get better outcome (Ahmed *et al.*, 1999; El Sood, 2012; Kanagaretnam *et al.*, 2005).

Bornemann *et al.* (2012) examine earning management using a sample of German banks. Their study discusses whether banks increase net income by excluding loan loss provisions in relation to the previous

period in order to achieve lower outcome variability. In addition, they investigate whether banks seek to increase net income by excluding loan loss provisions in relation to its peer group. They find that banks use earning management to avoid a negative net income, avoid a fall in net income compared to the previous year, avoid a decrease in net income compared to a peer group, and to achieve stable net income over time. They also find that banks avoided a drop in net income relative to the peer group during the financial crisis period.

More recently, Tabassum *et al.* (2015) use a sample of 119 firms from 2004 to 2011 to investigate the relationship between earning management and firm's future performance. The analysis shows that firms that used earnings management activities through sales manipulation to increase reported earnings have worse financial performance in future.

Another strand of literature shows that earning management include revenue smoothing can be motivated by executive opportunism (Safi and Shehzadi, 2015; Dechow *et al*., 2010). Earnings figures are presented and disclosed under close monitoring of executives who exercise their discretionary powers (Debnath, 2017). Mangers of the firm try to influence the financial result in attempt to achieve their contractual benefits at the expense of shareholders. Earnings management in firms can be classified into two different categories: the first one is accruals based earnings management which involves the generally accepted accounting principles (GAAP) and accounting conventions those are followed in the preparation of financial statements (Dechow and Skinner 2000). The second category is real earning management which occurs when executives try to change the timing or structuring firms' transaction in order to influence the reported results to reduce volatility and show good performance in current period (Waseemullah and Shehzadi, 2015).

Executives employ earning management in order to get additional benefits (Healy, 1985). Previous studies find that managers usually attempt to show income reduction as they try to decrease the stock price of the firm. For example, DeAngelo (1990) and Perry and Williams (1994) show evidence on earning management by discretionary accrual means in a year prior to the buyout announcement and found that discretionary accruals are negative before the management buyout. Degeorge *et al.* (1999) show that managers use earnings management activities to attain high compensation award of profit.

Other empirical studies discuss the relationship between earning management, executive stock pitons plan and firm performance. Executives' stock options plans are expected to provide incentives to take actions that increase share prices and consequently firm value (Alves, 2012).

These studies argue that executive stock option may create an incentive for earnings management (e.g. Jensen *et al.*, 2004; Burns and Kedia, 2006; Efendi *et al*., 2007). Managers may use earning management to understate the current period reported earnings in attempt to reduce the current market price of the firm's common stock. Therefore, managers use earnings manipulation to help them to purchase common stocks at lower price. When the current period reported earnings reduced the stock price will be lower, which can result in lower exercise price of executives' stock options (Kuang, 2008; Baker *et al.,* 2003; Balsam *et al.,* 2003). Cheng and Warfield (2005) argue that managers stock-based compensation induce them to engage in earnings management strategies. Managers' stock-based compensation relates their award to the future performance of the firm. Recent empirical literature has examined the incentives and motivations for executives to achieve earnings targets. Rani *et al.* (2013) find evidence that executives manipulate earnings in order to increase their compensation.

While the literature consistently examines the association between earning management and performance (see e.g. Cohen and Zarowin, 2010; Kothari *et al*., 2016), there is less consensus among academics about the impact of a bank's earning management practice on banks performance.

The objective of this paper is to better understand the role of loan loss provisions in producing earnings as one of the key outputs of the accounting process. Specifically, the paper examines how the manipulation of loan loss provisions may affect banks' current and future performance.

Thus, and based on the above discussion, our hypotheses are as follows:

H1: *Earnings management that occurs via discretionary loan loss provision is negatively associated with banks' current and future performance measured via return on assets (ROA).*

H2: *Earnings management that occurs via discretionary loan loss provision is negatively associated with banks' current and future performance measured via return on equity (ROE).*

3. Methodology of research

3.1. Data

This paper extends previous empirical studies to show the impact of earning management in banking industry on banks performance. Banking industry has a great influence on the stability of the global financial system (Eavis, 2008; Cheng *et al.,* 2011). Moreover, banks have considered a main player during the recent financial crisis (Faulkender *et al*., 2010; Claessens and Horen, 2015). This shows the importance to investigate the association between earning management and performance in the banking industry. The initial sample of this study consists of all European banks over the period 2006-2011. After imposing restrictions to all banks with necessary data to analyse our main variables of interest, we end up with a final sample consists of 477 bank-year observations that representing 55 European banks. We collect the financial data and date concerning loan loss provision from DataStream database. Any missing data were collected from the annual financial reports.

3.2. Banks performance measures

The aim of this paper is to investigate whether earning management affects the banks' financial performance. Thus, and following previous empirical literature, the financial performance is measured using tow profitability ratios; Return on Assets (ROA) and Return on Equity (ROE) (Hoskisson *et al*., 1999; Kothari *et al*., 2005; Akram *et al*., 2015; Alhadab and Alsahawneh, 2016).

ROA is an important ratio that shows the profitability of a firm. It is a ratio that relates firm's income to its total assets. This ratio measures the ability of the firm to generate income by using firm assets. Thus, this ratio indicates how efficiently the assets of the company are employed to generate income. Wen (2010) indicates that the higher ROA ratio the more effective the firm is using its own recourses.

ROE is a yearly financial ratio that shows how much profit a firm earned compared to the total amount of shareholder equity reported on the balance sheet. ROE measures what the stockholders require in return for their investment. A firm that has a high return on equity is expected to be one that is able to generate cash internally. Therefore, the higher ROE indicates better firm performance. ROE ratio shows the rate of return earned on the money invested in the firm by its shareholders. ROE also indicates how effectively a firm executive is investing stockholders' capital (Ongore and Kusa, 2013).

3.3. Measuring earnings management

There are numerous empirical studies about earnings management in accounting and financial literature. These empirical studies use different measurements as a proxy of earnings management such as discretionary accruals, smoothness, timeliness, loss avoidance, investor responsiveness (Dechow *et al.,* 2010). While for banking sector, prior empirical studies use discretionary loan loss provision (DLLP) is one of the most common proxies that is used to measure earning management practice (Burstahler and Dichev, 1997; Anandarajan *et al.,* 2003; El Sood, 2012). To measure DLLP we need first to decompose loan loss provision into discretionary and non-discretionary components. Thus, we follow prior research (e.g., Beaver and Engel, 1996; Kanagaretnam *et al.* 2004; Zoubi *et al.* 2007; Cheng *et al*. 2011; Ben Othman and Mersni, 2014) and use the following model to estimate the non-discretionary components of loan loss provision, and as follows.

$$LLP_{it}=\alpha_0+\alpha_1 NPL_{it-1}+\alpha_2\Delta NPL_{it}+\alpha_3\Delta TL_{i,t}+\epsilon \quad (1)$$

Where:

LLP_{it} = total loan loss provision for bank *i* at the year *t*, deflated by beginning loans,

NPL_{it-1} = the beginning balance of non-performing loan for bank *i* at the year *t* deflated beginning loan'

ΔNPL_{it} = change in the value of non-performing loan for bank *i* at the year *t*, deflated by beginning loans,

ΔTL_{it} = change in the value of total loan, for bank *i* at the year *t*, deflated by beginning loans.

Discretionary loan loss provision ($DLLP_{it}$) is calculated as the residual from model 1. As discussed by prior research (e.g., Kanagaretnam *et al.* 2004; Ben Othman and Mersni, 2014) loan loss provision is positively associated with the levels of non-performing loans, beginning balance non-performing loans, and total loans. This is due to the fact that when banks issue more loans the risk of loan default increases; which leads banks to increase their loan loss provision.

3.4. Empirical models

To examine whether earnings management (that occurs via manipulating loan loss provision) has an impact for banks' current and future performance, we estimate a model where the dependent variable is a proxy for banks performance (*ROA/ROE)* and main explanatory variable is a proxy for discretionary loan loss provision (*DLLP*). We follow prior research (e.g., Moyer, 1990; Collins *et al.,* 1995; Ahmed *et al.,* 1999; Kanagaretnam *et al.* 2004; Liu and Ryan, 2006) and add a set of determinant variables that may affect the performance. In particular, we control for earrings before tax and loan loss provision ($EBTP_{it}$), risk-adjusted Tier 1 capital ratio (CAP_Tier1_{it}), firm size ($SIZE_{it}$), and leverage ratio (LEV_{it}). However, prior research (e.g., Darjezi, 2006) pointed out that discretionary loan loss provision could be measured with errors and, therefore, no prediction is made on the sign (+/-) of direction for these determinant variables. We use the following models to investigate the relationship between DLLP and performance (ROA/ROE).

$$ROA_{t+i}=\alpha_0+\alpha_1 DLLP_{it}+\alpha_2 EBTP_{it}+\alpha_3 CAP\_Tier1_{it}+\alpha_4 SIZE_{it}+\alpha_5 LEV_{it}+\epsilon \quad (2)$$

$$ROE_{t+i}=\alpha_0+\alpha_1 DLLP_{it}+\alpha_2 EBTP_{it}+\alpha_3 CAP\_Tier1_{it}+\alpha_4 SIZE_{it}+\alpha_5 LEV_{it}+\epsilon \quad (3)$$

Where:

i = 0, 1, 2, 3, 4 and 5.

ROA = return on assets for bank *i* at the year *t*, *ROE*= return on equity for bank *i* at the year *t*,

$DLLP_{it}$= discretionary loan loss provision that is calculated as the residual from model (1) for bank *i* at the year *t*, $EBTP_{it}$= earrings before tax and loan loss provision for bank *i* at the year *t*,

CAP_Tier1_{it}= risk-adjusted Tier 1 capital ratio for bank *i* at the year *t*,

$SIZE_{it}$= natural logarithm of market value for bank *i* at the year *t*,

LEV_{it} = leverage ratio that is calculated as total debt divided by total assets for bank *i* at the year *t*.

4. Results

4.1. Descriptive statistics

Table 1 reports descriptive statistics for variables used in model 1 and shows that the total loan loss provision ranges from £-2,422,080 to 25, 677,000 with a mean value of £2,011,182.7; non-performing loans ranges from £-3,333 to 72, 912,000 with a mean value of £10,047,414.8; and total loans ranges from £450,650 to £3, 498,000,000 with a mean value of £431,400,000. These statistics suggest that the average non-performing loans represents approximately 2% of the average total loans for the European banks; the lower this percentage the less risk of bank failure. Table 1 also presents statistics for the above variables scaled by the beginning balance of total loans.

Table 1. Descriptive statistics for variables included in discretionary loan loss provision model

	Mean	Sd	Min	Max
LLP_{it}	2011182.700	3329824.830	-2422080.000	25677000.000
NPL_{it}	10047414.872	12375193.916	3333.000	72912000.000
TL_{it}	431,400,000.000	596,200,000.000	450650.000	3,498,000,000.000
LLP_{it} / TL_{it-1}	0.007	0.007	-0.003	0.056
NPL_{it-1} / TL_{it-1}	0.042	0.068	0.000	0.838
$\Delta NPL_{it} / TL_{it-1}$	0.006	0.077	-0.837	1.262
$\Delta TL_{it} / TL_{it-1}$	0.073	0.167	-0.350	1.474
N	477			

Notes: This table presents sample descriptive statistics for variables included in discretionary loan loss provision model.

Table 2 presents the Pearson correlation matrix for variables used in model 1 and shows that both (NPL_{t-1})and (ΔNPL_{it}) have a positive relationship with the (LLP_{it}); suggesting a higher level of non-performing loans in this year and last year would lead banks to increase the level of loan loss provision to account for any loans failure risk. Table 2 also shows that (ΔTL_{it}) is negatively associated with (NPL_{it-1}) and positively associated with (ΔNPL_{it}).

Table 2. Correlations matrix for variables used to estimate discretionary loan loss provision model

	LLP_{it}	NPL_{it-1}	ΔNPL_{it}	$\Delta TL_{i,t}$
LLP_{it}	1			
NPL_{it-1}	0.352***	1		
ΔNPL_{it}	0.0995*	-0.400***	1	
$\Delta TL_{i,t}$	-0.0262	-0.148**	0.120**	1

Notes: Significant at: *10, * *5 and * * *1 percent levels; this table reports Pearson correlation matrix for all variables used to estimate discretionary loan loss provision. All variables are previously defined.

Table 3 reports the results for estimating model 1; the non-discretionary components of loan loss provision. Table 3 reveals that NPL_{it-1} is considered as a significant determinant of the level of loan loss provision, suggesting a higher beginning balance of non-performing loans lead banks to increase the level of loan loss provision. In particular, the coefficient on NPL_{it-1} is positive (0.049) and statistically significant at 1% level. This result is in line with prior research that finds a positive relationship (e.g., Kanagaretnam *et al.* 2004, Cheng *et al.* 2011). However, Table 3 shows no evidence on the association between the other explanatory variables (ΔNPL_{it} and ΔTL_{it}) and loan loss provision.

Table 3. Discretionary loan loss provision estimation

VARIABLES	LLP_{it}
NPL_{it-1}	0.049***
	(3.914)
ΔNPL_{it}	0.026
	(1.352)
$\Delta TL_{i,t}$	0.000
	(0.064)
Constant	0.005***
	(7.746)
N	477
Adj. R-squared	0.188

Notes: This table presents the results for the estimation of discretionary loan loss provision. ***, ** and *, indicate that estimates are significant at the 1%, 5%, and 10% level. All variables are previously defined.

Table 4 presents the descriptive statistics for dependent and independent variables used in models 2 and 3; which are used to explore the relationship between earnings management and performance. Table 4 reports for main independent variable of interest, $DLLP_{it}$, a mean value of 0.007 and a range from 0.005 to 0.038. While for ROA and ROE (our performance proxies), table 4 shows mean values of 1.021 and 8.098, minimum values of -3.720 and -88.270, and maximum values of 7.430 and 41.060, respectively. Further, table 4 reports descriptive statistics for other independent variables and shows that earnings before tax and loan loss provision ($EBTP_{it}$) range from £-35,150,000 to 31,496,284 with a mean value of £1245791.6; adjusted risk Capital Tier 1 ratio (*CAP_Teir1*) ranges from 5.130 to 29.300 with a mean value of 10.405; banks size ratio (*SIZE*) ranges from 13.295 to 22.579 with a mean value of 19.501; and leverage ratio (*LEV*) ranges from 2.960 to 93.950 with a mean value of 35.068.

Table 4. Descriptive statistics for variables used in the analysis of association between earnings management and performance

	Mean	Sd	Min	Max
$DLLP_{it}$	0.007	0.003	0.005	0.038
ROA	1.021	0.909	-3.720	7.430
ROE	8.098	12.394	-88.270	41.060
EBTP	1245791.679	6690955.605	-3.515e+07	31496284.000
CAP_Tier1	10.405	3.734	5.130	29.300
SIZE	19.501	1.599	13.295	22.579
LEV	35.068	14.826	2.960	93.950
N	477			

Notes*:* This table presents sample descriptive statistics for variables used in the analysis of association between earnings management and performance. All variables are previously defined.

Table 5 presents the Pearson correlation matrix for dependent and independent variables used in models 2 and 3. Table 2 shows that $DLLP_{it}$ is negatively associated with ROA $_{it}$, ROE $_{it}$, $EBTP_{it}$, CAP_Teir1_{it}, $SIZE_{it}$, and LEV_{it}. These statistically negative and significant correlations between earnings management proxy ($DLLP_{it}$) and performance measures (ROA_{it} and ROE_{it}) indicates that banks with higher level of earnings management experience inferior performance. This is in turn presents preliminary evidence on opportunistic use of loan loss provision which leads to negative consequences for banks performance.

Table 5. Correlations matrix for variables used in the analysis of association between earnings management and performance

	DLLP	***ROA***	***ROE***	***EBTP***	***CAP_Tier1***	***SIZE***	***LEV***
DLLP	1						
ROA	-0.324***	1					
ROE	-0.393***	0.671***	1				
EBTP	-0.198***	0.307***	0.465***	1			
CAP_Tier1	0.186***	-0.0193	-0.141**	0.00860	1		
SIZE	-0.361***	0.0509	0.134**	0.276***	0.106*	1	
LEV	-0.220***	0.475***	0.0998*	0.107*	-0.232***	0.0474	1

Notes: Significant at: *10, * *5 and * * *1 percent levels; this table reports Pearson correlation matrix for all variables used in the analysis of association between earnings management and performance. All variables are previously defined.

4.2. Empirical results

4.2.1. DLLP and ROA

In this section we present the results for the main analysis whether earnings management is associated with banks' current and future operating performance (Models 2). Starting with our first proxy of performance (ROA), Table 6 reports the results and shows evidence that earnings management leads to sever negative consequences for current and future operating performance. In particular, column 1 of Table 6 reports the results for current (ROA_{it}) and shows that the coefficient on ($DLLP_{it}$) is negative (-41.182) and statistically significant at 1% level. Column I of Table 6 also reports the results for the other explanatory variables ($EBTP_{it}$, CAP_Teir1_{it}, $SIZE_{it}$, and LEV_{it}) and shows evidence that these variables are significant determinants of current operating performance (ROA_{it}); their coefficients are statistically significant at 1% level. Further, Column 1 of Table 6 shows the the explanatory power (Adj.R^2) for the model is 0.448 which suggests that explanatory variables together explain 44.8% of the change in current operating performance (ROA_{it}).

Column 2 of Table 6 presents the results for future performance (ROA_{it+1}) and shows that the coefficient on ($DLLP_{it}$) is negative (-41.789) and statistically significant at 1% level, suggesting that earnings management which takes place during the current year lead to negative consequences for the next year operating performance. This is in line with previous evidence on negative impact of earnings management. Further, column 2 of Table 6 presents similar evidence on the explanatory variables that they are significant

determinants of future performance. Meanwhile Column 3 of Table 6 presents when (ROA_{it+2}) is the dependent variable and shows similar evidence that earnings management is negatively associated with future performance. In particular, column 3 of Table 6 shows that the coefficient on ($DLLP_{it}$) is negative (-45.866) and statistically significant at 1% level.

Table 6. The association between earnings management and performance (proxied by return on assets, ROA)

VARIABLES	(1) ROA_{it}	(2) $ROA_{i,t+1}$	(3) $ROA_{i,t+2}$	(4) $ROA_{i,t+3}$	(5) $ROA_{i,t+4}$	(6) $ROA_{i,t+5}$
Constant	1.048*	0.540	-0.388	-0.565	0.034	0.164
	(1.809)	(0.926)	(-0.510)	(-0.734)	(0.048)	(0.201)
$DLLP_{it}$	-41.182***	-41.789***	-45.866***	-61.935	-46.483	-66.085
	(-3.761)	(-3.077)	(-2.786)	(-1.584)	(-0.911)	(-1.157)
EBTP	0.000***	0.000***	0.000***	0.000**	0.000***	0.000**
	(3.637)	(3.153)	(3.017)	(2.165)	(4.721)	(2.214)
CAP_Tier1	0.085***	0.081***	0.088***	0.085***	0.097***	0.073**
	(4.635)	(4.178)	(3.802)	(3.366)	(3.617)	(2.415)
SIZE	-0.059**	-0.038	0.011	0.028	-0.005	0.020
	(-2.397)	(-1.579)	(0.318)	(0.893)	(-0.197)	(0.723)
LEV	0.025***	0.023***	0.023***	0.022***	0.019***	0.018***
	(5.552)	(5.501)	(5.443)	(5.323)	(4.818)	(3.991)
N	455	415	367	333	297	264
Adj. R-squared	0.448	0.435	0.431	0.435	0.427	0.360

Notes: This table presents the results from the ordinary least square regressions for the effect of earnings management (proxied by discretionary loan loss provision, DLLP) on current and future performance (proxied by return on assets, ROA). ***, ** and *, indicate that estimates are significant at the 1%, 5%, and 10% level. Robust t statistics are in parentheses. All variables are previously defined.

In summary, the reported results in Table 6 (columns 1, 2, and 3) provide evidence that earnings management that occurs via manipulating loan loss provision ($DLLP_{it}$) leads to sever negative consequences for current (ROA_{it}) and future (ROA_{it+1}, ROA_{it+2}) operating performance. This evidence supports our first hypothesis that earnings management undertaken by banks is negatively associated with current and future operating performance. This is also consistent with prior research that finds evidence on the negative impact of earnings management for future operating performance (e.g., Cohen and Zarowin, 2010, Kothari *et al*., 2016).

4.2.2. DLLP and ROE

Table 7 reports the results for our second performance proxy (*ROE*) and shows similar results to those reported in Table 6 on the negative consequences of earnings management for banks' current and future performance. Column 1 of Table 7 reports the results for current (ROE_{it}) and shows that the coefficient on ($DLLP_{it}$) is negative (-866.155) and statistically significant at 1% level; which supports our second hypothesis that earnings management affects current performance (proxied by ROE_{it}). Except for *SIZE,* the coefficients of explanatory variables ($EBTP_{it}$, CAP_Teir1_{it}, and LEV_{it}) are statistically significant. Further, Column 1 of Table 7 shows that the coefficients on the explanatory variables ($EBTP_{it}$, CAP_Teir1_{it}, and LEV_{it}) are statistically significant confirming their importance to be added into the model, and that the explanatory power (Adj.R^2) for the model explains about 48% of the change in (ROE_{it}).

Columns 2, 3, 4, 5 and 6 of Table 7 report the result for future performance ($ROE_{it+1,}$ $ROE_{it+2,}$ $ROE_{it+3,}$ $ROE_{it+4,}$ and $ROE_{it+5)}$) and show strong evidence that earnings management via discretionary loan loss provision is associated with severe subsequent performance. In particular, the coefficients on ($DLLP_{it}$) in all columns are negative and statistically significant at 5% level at least; which supports our second hypothesis that earnings management affects future performance (proxied by ROE_{it+i}).

In summary, the reported results in Table 7 provide evidence that banks with high levels of earnings management (measured via discretionary loan loss provision, *DLLP*) experience inferior current and future performance (measured via return on equity, *ROE*). This evidence is consistent with our previous results

based on *ROA,* sending a strong signal that our results on the negative relationship between earnings management and banks performance are robust using different proxies for performance.

Table 7. The association between earnings management and performance (proxied by return on equity, ROE)

VARIABLES	(1) ROE_{it}	(2) $ROE_{i,t+1}$	(3) $ROE_{i,t+2}$	(4) $ROE_{i,t+3}$	(5) $ROE_{i,t+4}$	(6) $ROE_{i,t+5}$
Constant	23.376**	14.787	7.131	14.662	14.383	11.166
	(2.447)	(1.482)	(0.650)	(1.115)	(1.003)	(0.704)
$DLLP_{it}$	-866.155***	-870.666**	-1,157.572**	-2,762.284***	-3,500.950**	-4,134.942**
	(-2.657)	(-2.105)	(-2.150)	(-3.335)	(-2.530)	(-2.429)
EBTP	0.000***	0.000***	0.000***	0.000	0.000	0.000
	(5.887)	(4.964)	(2.604)	(1.292)	(1.127)	(0.289)
CAP_Tier1	0.626***	0.445**	0.571**	0.197	0.313	0.253
	(3.468)	(2.336)	(2.438)	(0.835)	(1.325)	(0.818)
SIZE	-0.346	0.076	0.581	0.966**	1.243***	1.738***
	(-0.855)	(0.199)	(1.374)	(2.352)	(3.043)	(3.859)
LEV	-0.069**	-0.077**	-0.077*	-0.061	-0.065	-0.094
	(-2.071)	(-2.018)	(-1.744)	(-1.251)	(-1.310)	(-1.558)
N	475	411	353	304	260	221
Adj. R-squared	0.480	0.380	0.378	0.430	0.398	0.364

Notes: This table presents the results from the ordinary least square regressions for the effect of earnings management (proxied by discretionary loan loss provision, DLLP) on current and future performance (proxied by return on equity, ROE). ***, ** and *, indicate that estimates are significant at the 1%, 5%, and 10% level. Robust t statistics are in parentheses. All variables are previously defined.

5. Conclusions

In this study we examine the impact of earnings management that undertaken by banks on current and future performance. We use two proxies for performance that are return on assets (ROA) and return on equity (ROE). The present paper is one of the very few studies that examine earnings management practices in the European banking industry and how such use can feed through to current and future performance. Using a sample consists of 477 bank-year observations that representing 55 European banks over the period from 2001 to 2015, this paper contributes to the literature by providing the following. First, it provides new evidence that European banks with high levels of earnings management that occurs via discretionary loan loss provision experience inferior operating performance (measured via return on assets, ROA) in the current and subsequent years. This evidence is consistent with prior studies that find a negative relationship between earnings management and future performance (e.g., Cohen and Zarowin, 2010, Kothari *et al.,* 2016). Second, this paper also uses other proxy of performance (return on equity, ROE) and provides consistent evidence on the negative consequences of earnings management for future performance. The results show that the negative impact of earnings management that takes place in a specific year (the event year) feed through up to five years after the even year. Thus, earnings management can inflate current reported earnings to meet several incentives, but this at the expense of future performance.

The findings of this paper therefore present very important implication for European regulators to reform the regulatory environments of banking industry in Europe to reduce earnings management practices that occur via manipulation loan loss provision. European banks are found to manipulate their loan loss provision to inflate their reported earnings, and this inflation negatively affects banks' current and future performance. The interested parties (e.g., regulators, investors, audit firms etc.) therefore need to cooperate to address these reforms.

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