

Earnings Management and Accounting Conservatism: Evidence from Indian Banking Industry

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Abstract

The study analyses whether the earnings are managed in the banking industry in India through loan loss provisions, particularly provision for non-performing assets. The study explores the presence of conditional accounting conservatism in the Indian banking industry. Further, the study evaluates the relationship between earnings management and conditional accounting conservatism. The findings of this study indicate income-smoothing practices by Indian Banks. However, the results do not prove the presence of capital management or signalling practices by Indian Banks through the usage of PNPA. Further, the results reflect the presence of conditional conservatism. Indian banks, following higher level of unconditional conservatism in their accounting practices, are found to be less conditionally conservative. Conditional accounting conservatism reflected in PNPA is mainly through non-discretionary component of PNPA. The study espouses the relationship between earnings management and accounting conservatism. The material significance of these findings is to advice the banking regulator of India by providing insights about causes of rising NPA ratio, which the regulator strives to restrict.

Key Words: Earnings management, Accounting conservatism, Banking industry, and Signalling

1. Introduction

Crisis in Indian banking industry is not a recent phenomenon. Particularly, bank frauds have been an integral part of Indian banking history with the recent scam in Punjab National Bank having horrified this industry the most. Some of the frauds have been of high impact that they caused closure of different banks. For instance, Presidency Bank of Bombay, People's Bank of India, Palai Central Bank and several other banks have been shut down in the history. One of the major reasons of banking failures in India have been bad loans of very high order and inadequacy of provisions for non-performing loans. Unethical and unthought-of lending by banks have caused havoc from time to time. Bankers' do not bring such loans to the surface delinquently when these loan accounts start defaulting and degrading. These are not categorised as non-performing as required by regulations for a very long period. They get unearthed when the amount outstanding in such non-performing loans have increased tremendously. Reserve Bank of India (RBI), the central bank of India, has tried to curb all such crisis by tightening and adding more regulations to ensure every loan awarded to a customer is brought to the surface to avoid accumulating number of loan defaulters that results to bank crisis if not attended to at the right time. Currently, Indian banking industry is governed not only by domestic regulator but by international Basel norms. RBI in its fourth bi-monthly monetary policy statement, 2015-16, dated 29th September 2015 mentioned that it had observed material divergences between banks and the supervisor (i.e. RBI) with respect to asset classification and provisioning. This policy indicates that many

banks' financial statements do not show a true reflection of the banks' financial position and performance. To ensure greater transparency and better discipline RBI issued a circular dated 18th April 2017 in this regard. Vide this circular; RBI requires all the banks to report such divergences in their notes to accounts if they exceed the threshold limit of 15%.

The RBI has been revising the guidelines pertaining to loan loss provisions year-on-year in light of the regulator's emphasis on safety and soundness of Indian banks. Higher level of loan loss reserves shall aid the bankers in absorbing higher unexpected losses without failing. Loan loss provision is an item of utmost importance in the bank's financial statements. The thrust of the regulator in this regard reflects conservative approach in creating loan loss provisions. It is under close supervision of regulators that the regulations and policies put in place by RBI can be followed by the banks to avert the great loss suffered in the last few decades in India. At the same time, the managers have been using it for their discretionary purposes. As the loan loss provision is not entailing any cash flow, bankers may use it for earnings management purposes.

The banking sector of India is expected to be conservative in its practices including accounting practices, as its regulator demands the same. Conservatism in accounting has been defined as any expenses and liabilities which are prudently recognised by maxim principle of anticipate no profit but anticipate all losses. The debate on the effectiveness of the concept of conservatism in banking sector was intensified until in the year 2010 when the accounting standard setters reviewed its framework and rejected it on the grounds that conservatism compromised neutrality which is an aspect that promotes faithful presentation (Beaver & Ryan, 2005). Watts (2003) in his paper as well mentioned the regulatory demand is one of the key factors leading to conservative accounting practices. However, the history of banking sector of India displays non-cautious lending by bankers leading to huge loan losses, causing scams and frauds. Basu (1997) has referred to asymmetric timeliness in reporting good news versus bad news as the root cause of the witnessed fraud and loan defaulting crisis in the Indian banks. A firm accounts for the effect of bad news in more timely fashion than for the effect of good news. Studies have indicated earnings have a tendency of reflecting bad news more quickly than good news. Therefore, accountants are expected to practice high level of verification for them to recognize good news in their financial statements than bad news. This asymmetry verification and recognition is beneficial in situations where two parties in a contract have asymmetric payoffs (Basu, 1997). This is known as conditional conservatism. However, since accruals are used to achieve conditional conservatism as per the conceptual framework of conditional accounting conservatism, such accruals can be bifurcated into discretionary and non-discretionary components as pointed out by Lara *et al.* (2005). Lara *et al.* (2005) argued in their study that such non-discretionary accruals are recognised not for conservatism reasons but for earnings management reasons. A bank, which is conservative, is expected to create provision for non-performing asset even if there is a slightest chance of its going bad. Nevertheless, the earning management literature states that banker would be interested in creating lower provision if incomes are declining for window dressing purposes and higher provision if incomes are rising for income smoothing purposes. Theoretically, accounting conservatism and earnings management move in opposite direction.

Researchers in the field of conservatism accounting have held there exist two major type of conservatism: conditional and unconditional conservatism. Conditional conservatism has been perceived as the tendency of accelerating losses and defers gains while unconditional conservatism is the accounting bias that works towards reporting low book values of net asset relative to the market value (Beaver & Ryan, 2005).

Large number of empirical studies has shown usage of loan loss provisions by bank managers for earnings management, capital management and signalling purposes. The latest study, in Indian context, in this regard by Ghosh (2007) using data of Indian banks for the period 1997 – 2005 showed there have been major changes in the prudential norms for asset classification and provisioning since 2005. The study period is 2005 – 2016. The purpose of this study is to empirically explore the findings of Ghosh (2007) in the post 2005 period because of stricter norms and guidelines prevailing since then. In addition, Indian banks are gradually converging from domestic set of regulations to more stringent international Basel norms. Additionally, the current study shall assess the presence of accounting conservatism in the Indian banks.

Earnings conditional conservatism is mainly due to accruals component of earnings not the operating cash flow component (Pae J., 2005). Accruals are used both, for conditional conservatism and earnings management. A banker wanting to indulge in earnings management in a bad year would be inclined to lower down the figure of loan loss provisions to display a better picture. However, conditional accounting conservatism practices require that in a bad year, higher loan loss provision should be created. Pae (2007) asserted managers have incentives and bonuses which they use to understate earnings though expedition and recognition of bad news in a bad year hence decreasing the level of conditional conservatism and minimize the rate at which the bank falls under serious crisis that are likely to render it unoperational. This study shall explore the association between earnings management and accounting conservatism in Indian Banking industry. Moreover, it shall explore the relative contribution of discretionary and non-discretionary components of accruals to conditional conservatism. Vishnani *et al.*, 2016 have proved the presence of conditional conservatism in Indian corporate. Kapoor & Goel (2017) report in their paper noted Indian companies reported high-level of discretionary accruals, which mar the quality of their reported earnings. No study has been done to explore the relationship between earnings management and accounting conservatism neither in Indian context nor in banking industry context. This study is an attempt to fill that gap. Further, Ind AS (Indian set of IFRS converged banks) shall be implemented in Indian banking industry with effect from 1st April 2018. This study shall institute a yardstick for assessing the impact of IFRS on earnings of Indian banks post implementation in an attempt to answer the research problem questions set by the researcher in an endeavour to achieve the study objectives. This study explores following hypothesis:

H_1 : Indian banks are involved in earnings management practices, capital management practices and signalling

H_2 : Indian banks are conservative in their accounting practices

H_7 : Discretionary accruals decrease the degree of conditional accounting conservatism.

This paper is organised into seven major sections: brief notes on earnings management, capital management and signalling, accounting conservatism, a synopsis of RBI's guidelines on asset classification and provisioning norms, a review of literature, data and model specification, empirical results and discussion, as well as the conclusion.

1.1 Earnings Management, Capital Management, and Signalling

The concept of earnings management describes the exploitation of accounting practices that deliver desirable financial statements, which reflect the financial position and financial performance of a healthy organisation (Cupertino, Martinez and da Costa, 2015). A healthy financial statement is a depiction of the financial stability and consistency of an organisation. All business organisations, particularly listed companies, have compelling reasons to be perceived as financially stable. External stakeholders of an organisation, including bankers, investors, suppliers, and customers, need continuous assurance about the financial strength of the organisation with which they transact (Brown, Chen and Kim, 2015). Earnings management is, not only about portraying a better financial picture during the periods of shaky performance, but also entails ploughing back significant earnings in the periods of extraordinary profits, while redefining the corporate financial performance. Subsequently, the generated hidden reserves are then be utilised to exhibit a positive picture of high returns for the period characterized by shaky performance.

According to Cupertino *et al.* (2015), earnings management is the elucidation of income smoothing effect in reported earnings of the organisation. The rationale for earnings managements, based on perceptions of corporate managers is pegged on portraying the organisation as a low risk organisation through tax minimization, elicitation of positive signals about future earnings, and increasing remuneration of key personnel in the organisation, in order to enhance income smoothing. Equally, Nichols *et al.* (2009) showed that as information asymmetry increases, bank managers get more scope to manipulate financial figures depicted in statements of profit or loss, and in the balance sheet. Studies on earnings management practices in the banking industry have focused on loan loss provisions since financial statements of banks feature a major component of loan loss provision through which earnings management is possible, which is an accrual based item that does not involve any cash flows (Brown *et al.* 2015). Prior research has depicted the usage of loan loss provisions for earnings management by bankers (Ahmed *et al.*, 1999; Collins *et al.*, 1995; Greenawalt and Sinkey, 1988; Kim and Kross, 1998; Zoubi and Al-Khazali, 2007). In India, RBI has been regulating earnings management through IRAC (Income Recognition Asset Classification and Provisioning Norms) guidelines since its inception considering the appended importance.

Capital management, on the other hand, describes the maintenance of appropriate ratio of assets and liabilities in a business organisation (Pais and Gama, 2015). Cost of capital and rate of return are critical dimensions of effective capital management. Considering that the banking industry is highly regulated, its capital requirements in India are regulated by RBI, which specifies Capital Adequacy Ratios. As per RBI

norms, India scheduled commercial banks to maintain a CAR of 9% while banks in the Indian public sector domain maintain a 12% in CAR. Empirical studies in the area of capital management can be categorised into pre-BASEL and post-BASEL periods. During the pre-BASEL period, loan loss provisions were part of numerator of capital adequacy formula. Many studies prove association between LLPs and capital adequacy ratio (Scholes *et al.*, 1990; Moyer, 1990). In the post-BASEL period, loan loss provisions are not part of capital adequacy ratio, hence no association is expected, as highlighted by Kim and Kross (1998) and Ahmed *et al.* (1999) in empirical studies.

Signalling in the financial industry is quite common (Park *et al.* 2016), with many companies making diverse announcements to signal their investors about bright future prospects. Different corporate channels, particularly financial periodicals and newsletters, are used as published media to signal some information to the market. Previous studies have explored the use of LLPs for signalling purposes (Liu *et al.*, 1997; Beaver and Engel, 1996; Ahmed *et al.*, 1999), and established that an increase in LLPs may convey higher level of accounting conservatism and signal higher level of confidence in management, which may be indicative of an increase in future earnings.

1.2 Accounting Conservatism

The concept of accounting conservatism is used in the field of accounting to refer to a policy of anticipating for possible future losses that are likely to be witnessed in the future but not gains. This policy aims at understating net assets and net income other than overstating them so as to help companies to play safe (Ruch and Taylor 2015). Accounting conservatism further holds that earnings are recognized when they are realized while losses are recognized immediately. In accounting, conservatism rule states that when choosing between two priorities, an accountant should consider going for the situation that is less likely to overstate assets and incomes. In prior empirical studies, accounting conservatism is categorised into Conditional Conservatism and Unconditional Conservatism. Conditional conservatism is ex post in nature, it is news dependent conservatism. In conditional accounting conservatism, recognition of negative economic news in accounting earnings occurs in a timely manner than the positive economic news (Ruch and Taylor 2015). This results in asymmetric recognition of the positive and negative news, which is *asymmetric timeliness* (Basu 1997) or *asymmetric verification* (Watts 2003). Moreover, accounting conservatism is viewed to impact negatively by administrators when it contradicts to the qualitative requirements of neutrality as it affects the usefulness of the information obtained from balance sheets. Conditional conservatism has been the area of interest in most of the prior researches in accounting. With most of the researchers interested in exploring factors contributing to its development and the effects associated with conservatism to the banks. Unconditional conservatism is not event specific as it is not dependent on the news events thus has relatively consistent impact on financial statements. In this, reported book values of net assets are lower than their market values.

Accounting conservatism is of high significance in banking sector because of high potential for information asymmetry, complexities arising due to regulations, opacity and contracting aspects involved (Furfine, 2001; Levine, 2004; Craig Nichols *et al.*,

2008). Additionally, conservatism is used by standard-setters and other financial regulators as a method of reducing exposure to any reputational damage caused by overvaluation of the firm income value due to accounting standards. As information asymmetry increases, bank managers get more scope to manipulate figures of Statement of profit or loss and Balance Sheet (Nichols *et al.*, 2008). The central banks of most of the countries advocate conservatism. As well, RBI has increased stringency in its guidelines relating to capital requirements and loan loss provision over the years. Regulators have always advocated conservative accounting practices by firms (Watts, 2003).

1.3 RBI's guidelines on Asset Classification and Provisioning Norms

In a phased manner, RBI has been issuing prudential norms for asset classification and provisioning for the advances portfolio of the Indian banks. An asset is classified as non-performing when recovery of principal and/or interest is not in accordance with stipulated timelines. Equally, RBI has made the norms of asset classification stringent, in a phased manner, to move towards international best practices. The same are tabulated in Table 1.

Table 1: Criteria of Asset Classification

Particulars	1992-93	1993-94	1994-2000	2000-2003	2003-18
Non-performing Assets	Past due 4 qtrs.	Past due 3 qtrs.	Past due 2 qtrs.	Overdue 2 qtrs.	Overdue/Out of order for more than 90 days

Further, advances are required to be classified into four categories: Standard, Sub-standard, Doubtful and Loss. All performing assets are standard and all non-performing assets are categorised into sub-standard, doubtful and loss. The RBI guidelines relating to asset classification over the years is displayed in Table 2.

Table 2: Criteria for Non-performing Asset Classification

Particulars	1992-93	1993-94	1994-2000	2000-2004	2004-2018
Sub-standard	NPA upto 24 months	NPA upto 24 months	NPA upto 24 months	NPA upto 18 months	NPA upto 12 months
Doubtful	NPA for more than 24 months	NPA for more than 24 months	NPA for more than 24 months	NPA for more than 18 months	NPA for more than 12 months
Loss	Identified by auditors/inspecting team	Identified by auditors/inspecting team	Identified by auditors/inspecting team	Identified by auditors/inspecting team	Identified by auditors/inspecting team

Moreover, the provisioning requirements for various categories of assets have undergone changes year-in year-out. The key details are tabulated in Table 3.

Table 3: Provisioning Requirements

Particulars	1992-1999	1999-2010	2010-2018
Standard	-	0.25%	0.25% - 2% (based on category of Advances)
Sub-standard	10%	10%	15% (additional 10% for unused portion)
Doubtful:			
Secured portion-			
D1	20%	20%	25%
D2	30%	30%	40%
D3	50%	50%	100%
Unsecured Portion	100%	100%	100%
Loss	100%	100%	100%

2. Background and Literature

2.1 Earnings Management in Banking Industry

Kanagaretnam *et al.* (2003) examined the benefits sought by bank managers for indulging in income smoothing practices through loan loss provisions. They mentioned that there exists inverse relationship between current saving and future income. Their study proved that the relationship between good (poor) current and expected poor (good) future performance indicates the increase in loan loss provisions during good times and borrow earnings through loan loss provisions in bad times. They further pointed out in their study that the need for external financing is an important variable to explain cross sectional differences in income smoothing. Anandarajan *et al.* (2007) examined the extent of use of loan loss provision (LLP) for capital management, earning management and signalling in Australian banks and found that the loan loss provision is more significantly understated in post Basel period than pre Basel period. They found no evidence for the use of LLP for capital management after the change in Basel accounts but found evidence of earnings

management by the listed commercial banks. Similarly, their study did not confirm usage of LLP for signalling purposes.

Ghosh (2007) carried a study to examine the factors affecting the loan loss provisions in India. The author concluded through his study that loan loss provision is used for income smoothing and capital management by Indian banks. The loan loss provisions are more aggressively used by the banks, which are listed in stock exchange than those that are unlisted. In addition, the author argued about the empirical relationship between capital and loan loss provision. Additionally, Ghosh (2007) mentioned that provision for impaired loans is not done on time by banks which has attracted the attention of regulators and policy makers probing them to instruct banks that provisioning against loan should be future oriented which set aside more resources during good economic times. Ghosh (2007) advised that loan loss provisions should be used as a counter-cyclical device to avoid arise of crises in the banking sector. Eng and Nabar (2007), based on their study of banks of Hong Kong, Malaysia and Singapore, concluded that there is positive and significant relationship between DLLP, future cash flow and stock returns. The study showed that increase in loan loss provisions increased the stock prices because investors react positively to this in anticipation of rise in future cash inflows. However, this behaviour was not significant during crisis period of 1997. Therefore, they proved that macroeconomic insecurity affects the deliberate behaviour of bank managers and investors.

Kwak *et al.* (2009) conducted their study to ascertain whether Japanese banks use DLLP (Discretionary Loan Loss Provision) for earnings management purposes. Their study showed when the demand for external finance is high, gain on sale of securities is high, an income tax in prior year was high making the use of DLLP to be high. Moreover, the authors found that during recession, huge bad debt loan increased the use of DLLP, which signalled the need of external financing along with securities gain to maximise equity capital and earnings. Das *et al.* (2012) examined the banks in India, for the possibility of using loan loss provision to smoothen their income. Their study reflected that loan loss provisions are higher in public sector banks than in private sector banks. Moreover, their study found out that the decision of loan loss provision is affected by the dividend payout ratio and credit growth of the bank. They additionally researched and concluded for the banks to report higher profits in $(n-1)$ period, there should be higher probability of loan loss provision in n period in order to smoothen the income.

Dantas *et al.* (2013) explored the impact of macro-economic variables and loan attributes on discretionary loan loss provisions in Brazilian banks. Their study noted the use of current economic situation, the kind of loan, the intensity of portfolio and the geographical location of debtors: all these factors critically affect the creation of discretionary provisions in banks. Their study as well reflected that the non-discretionary component of loan loss provisions had greater persistence and discretionary components had greater transience. Desta (2017) explored in their study upon the relationship between loan loss provision and earnings management in the African Banks. His study proved existence of DLLP in African banks. Equally, the author found in his study that in order to reduce risk, banks use DLLP to manage their earnings. In addition, Desta (2017) concluded when the earnings before tax and

provisions is high (low) and loan to deposit ratio decreases (increases), the banks decreases (increases) DLLP.

2.2 Accounting Conservatism in Banking Industry

Nichols *et al.* (2009) reflected in their study that public banks in US have higher degree of conditional conservatism as compared to private banks in US. In their study, they showed that public banks recognise larger and timelier loan loss provisions as compared to private banks. Leventis *et al.* (2013), based on their study of US listed commercial banks, concluded that banks with better corporate governance mechanisms were more conservative in their accounting practices. The study as well noted these banks had relatively higher loan loss provisions when compared to the banks with poor corporate governance mechanisms. Kanagaretnam *et al.* (2014) conducted their study on banks of 65 countries to explore the impact of national culture on accounting conservatism. They used Individualism and Uncertainty Avoidance as the measures of national culture as suggested by Hofstede (2001). Their study proved that in countries with higher individualism, bankers were relatively less conservative in accounting practices while countries with higher uncertainty avoidance followed more of conservative accounting practices.

2.3 Earnings Management and Accounting Conservatism in Banking Industry

Ronen and Yaari (2008) defines earning management as a situation that occurs when financial managers use judgements from financial reporting and structured transactions to alter financial reports to mislead some stakeholders about underlying economic performance of the company to influence contractual outcomes that depend on reported accounting numbers. Reviewed literature from different scholars has defined earning management as account manipulation which is embedded on the desire of management to influence wealth transfer between different stakeholders with the possibility of wealth transfer between multiple stakeholders are outlined (Stolowy and Breton 2004). According to Pae (2007), managers have incentives to understate earnings by expediting the recognition of bad news other than good news due to high litigation costs. In an empirical review on the effects of earning management on the direct accounting conservatism using the Basu (1997) model, Garcia Lara *et al.* (2005) held that conditional account conservatism is primarily linked to the discretionary part of accruals as opposed to non-discretionary accruals. According to McNichols (2000), accruals are relatively large items which are subject to management's discretion hence accruals are considered to be the best measure of earning management. If the management use discretion of accruals to measure earnings total accruals are decomposed to non-discretion accruals and discretionary accruals. To explore the effects of earning management a cross-sectional regression on the total loan loss provisions should be executed with the industry required to make an estimation of the total loan loss provisions.

3. Data and Methodology

The data for the purpose of this study is taken from the Database on Indian Economy compiled by the Reserve Bank of India, the central bank of the country. Total 84 banks (including foreign, nationalised and private sector banks) are taken for the purpose of the study. The time period covered is between the financial years 2005 to 2016. The final sample of this study comprised of 681 bank-year observations.

Table 4: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PNPA	681	-.03	.09	.0045	.00741
PNPAL	681	-.03	.09	.0037	.00731
ROA	681	-.06	.14	.0248	.01603
CAR	681	.99	277.45	17.5349	15.36220
ChEBTP	681	-.07	.07	.0026	.00983
CDR	681	.91	10994.26	106.8110	427.39153
LnTA	681	5.71	16.93	12.6838	2.04448
NPA	681	.00	.39	.0211	.02815
GDP	681	.04	.10	.0770	.01869
RIR	681	-.01	.08	.0450	.02504
Valid N (listwise)	681				

Table 5 presents the correlation matrix of independent variables used in the model for study.

Table 5: Correlation matrix of Independent Variables

	<i>PNPA_{t-1}</i>	<i>ROA</i>	<i>CAR</i>	Δ <i>EBTP</i>	<i>CDR</i>	<i>LN(TA)</i>	<i>NPA</i>	Δ <i>GDP</i>	<i>Intt</i>
<i>PNPA_{t-1}</i>	1.000								
<i>ROA</i>	-0.073	1.000							
<i>CAR</i>	0.099	0.227	1.000						
Δ <i>EBTP</i>	-0.061	0.520	-0.043	1.000					
<i>CDR</i>	0.159	-0.063	0.244	-0.266	1.000				
<i>LN(TA)</i>	-0.044	-0.234	-0.496	-0.028	-0.147	1.000			
<i>NPA</i>	0.324	-0.164	0.109	-0.141	0.224	-0.170	1.000		
Δ <i>GDP</i>	0.040	-0.084	-0.024	-0.083	0.002	-0.102	0.047	1.000	
<i>Intt</i>	0.081	-0.049	-0.023	0.055	0.019	0.030	0.150	-0.278	1.000

To test the first hypothesis, the researchers used the following pooled data regression model to examine whether loan loss provisions are used by banks in India for earnings management, capital management and signalling during the period of the study. The model is tested for autocorrelation and heteroscedasticity. The model is based on the empirical models used in prior studies for testing earnings management, capital management and signalling in banking industry (Ahmed *et al.*, 1999; Kim and Kross, 1998; Liu and Ryan, 1995; Anandarajan *et al.*, 2007). The model is first run using OLS for overall sample of the study. Then, the researchers tested it separately for listed banks, unlisted banks, public banks, private banks and foreign banks.

$$PNPA_{it} = \alpha_0 + \beta_1 PNPA_{it-1} + \beta_2 ROA_{it} + \beta_3 CAR_{it} + \beta_4 \Delta EBTP_{it} + \beta_5 CDR_{it} + \beta_6 LN(TA)_{it} + \beta_7 NPA_{it} + \beta_8 \Delta GDP_{it} + \beta_9 Intt_{it} + \epsilon_{it}$$

(1)

Where:

i = bank; t = year;

PNPA = Provision for Non-performing Assets/Total Assets

ROA = Return on Assets (which is calculated as EBTP/TA)

CAR = Capital Adequacy Ratio

EBTP = Earnings before taxes and provisions

Δ EBTP = (Increase/Decrease in EBTP year on year)/Total Assets

CDR = Credit-Deposit Ratio

Ln (TA) = Natural log of Total Assets

NPA = Non-Performing Assets/Total Assets

GDP = Growth rate of GDP of India

Intt. = Real rate of interest

The first independent variable is lag of dependent variable, i.e., previous year figure of PNPA. The regulatory changes in Prudential Norms of Asset Classification and Provisioning Norms over the years suggest close correlation between PNPAs across the years. The regulations have become stringent year on year. Further provisioning requirements increase in terms of quantum as a non performing account ages. The second independent variable is included to capture the earnings management. Higher the earnings, higher is the expected figure of PNPA if bank is into earning management practices. The third independent variable is included to capture the capital management. Higher the capital adequacy ratio, lower is the expected figure of PNPA, bank is involved in capital management practices. CAR measures the bank's capital, which ultimately protects the interest of the depositors. The fourth independent variable is included to capture the signalling. Higher the change in EBTP, higher is the expected figure of PNPA, if bank is signalling increase in earnings via PNPAs. The fifth, sixth and seventh independent variables are included in the model as bank specific control variables. The fifth independent variable is credit deposit ratio. Higher the credit deposit ratio, higher is the risk profile of the bank. Further, the bank with high credit deposit ratio will need more of external funds. To reduce the risk perception in the eyes of bank financiers, bank will create lower PNPA. Equally, this will positively affect its cost of funding. Thus an inverse relation is expected between CDR and PNPA. The sixth independent variable is Ln of Total Assets. This is included to capture size effect. Larger banks are expected to involve more in income smoothing practices and create larger PNPA. Further, total asset conveys the size so it should have the positive coefficient because as the total asset increases, the lending by bank will increase which will increase the use of PNPA. Thus positive relationship is expected between Ln (TA) and PNPA. The seventh independent variable is Non-Performing Loans divided by total assets. Higher the non-performing loans, higher the provision of NPAs is required. Thus a positive relation is expected between the two variables. The eighth and ninth variables are macro level control variables. As banking sector is closely associated with economic condition of India, GDP growth rate and Real Interest Rate are included in the model. On both the variable positive coefficient is expected. To capture the heterogeneity across banks, then the researchers used fixed effects model using the same variables.

To test the second hypothesis, the researchers used Basu (1997) model to capture accounting conservatism in Indian listed banks. Basu (1997) gave the measure of

conditional accounting conservatism in terms of asymmetric timeliness which is based on the concept that publicly available “bad news” is more quickly incorporated in earnings as compared to “good news” if a firm is conservative in its accounting practices. The author used reverse regression to prove that accounting earnings incorporate ‘bad news’ faster than ‘good news’. Common stock returns (R_{it}) serve as proxy for good and bad news. The interactive slope coefficient, β_1 , captures the differential sensitivity of accounting earnings to negative and positive stock market returns. It shall be positive and statistically significant to show the asymmetrical timeliness in incorporating bad news as compared to good news. Below is specified Basu’s model:

$$E_{it} = \alpha_0 + \alpha_1 D_{it} + \beta_0 R_{it} + \beta_1 R_{it} D_{it} + \varepsilon_{it} \quad (2)$$

Where:

i = the firm,

t = year,

E_{it} = annual earnings per share in year t scaled by beginning stock price,

R_{it} = the firm’s common stock return from nine months before fiscal year-end t to three months after fiscal year-end t ,

D_{it} = one if R_{it} is negative (“bad news”) or zero when returns are positive (“good news”), and

ε_{it} = the disturbance term

Furthermore, the researchers have measured accounting conservatism using Khan and Watts (2007), for the sake of robustness. Khan and Watts (2007) gave firm-year measure of conditional conservatism termed as C_Score, which captures firm-year specific characteristics affecting the degree of conditional conservatism. Many events affecting a firm’s conditional accounting conservatism are both time-specific and firm specific. Basu (1997) linked conditional conservatism to asymmetric timeliness in responding to ‘bad news’ versus ‘good news’. Khan and Watts (2007) gave the measure of conditional conservatism, C_Score, based on Basu (1997) asymmetric timeliness concept and incorporating the firm-year specific characteristics: size, market-to-book and leverage. All three firm specific characteristics have conjectural associations with accounting conservatism.

$$E_i = \beta_1 + \beta_2 D_i + R_i \left(\mu_1 + \mu_2 Size_i + \mu_3 \left(\frac{M}{B} \right)_i + \mu_4 Lev_i \right) + D_i R_i \left(\lambda_1 + \lambda_2 Size_i + \lambda_3 \left(\frac{M}{B} \right)_i + \lambda_4 Lev_i \right) + \left(\delta_1 Size_i + \delta_2 \left(\frac{M}{B} \right)_i + \delta_3 Lev_i + \delta_4 D_i Size_i + \delta_5 D_i \left(\frac{M}{B} \right)_i + \delta_6 D_i Lev_i \right) + \varepsilon_i$$

(3)

Where:

i = the firm,

E equals annual earnings per share scaled by beginning stock price,

R = the firm’s common stock return from 9months before fiscal year-end to three months after fiscal year-end (measuring news),

D = a dummy variable equal to 1 when $R < 0$ and equal to 0 otherwise,

$Size$ = the natural log of market value of equity,

M/B = the ratio of market value of equity to book value of equity

Lev = ratio of debt to equity

For all banks in the study sample, the researchers run equation (3) annually. Using the regression results from equation (3), C-score is derived using following equation:

$$C_Score = \lambda_1 + \lambda_2 Size_i + \lambda_3 \left(\frac{M}{B}\right)_i + \lambda_4 Lev_i$$

Thereafter, the researchers verified empirical properties of estimated C_Scores to ensure consistency with literature. To test the third hypothesis, the researchers used the model suggested by Pae (2007) for exploring the relationship between discretionary accruals and conditional accounting conservatism. Prior studies (as listed above under Literature Review) have used loan loss provisions to explore the presence of earnings management and accounting conservatism, in the context of banking industry. Accruals play a very important role in conditional accounting conservatism (Pae, 2007). Basu (1997) captures accounting conservatism by focusing on asymmetric timeliness of 'good news' and 'bad news' on earnings of the firm. However, Pae (2007) focused on the asymmetric timeliness of accruals (component of earnings) rather than earnings to conduct the study. The author bifurcated the total accruals into expected (non-discretionary) and unexpected (discretionary) components and explored the relative contribution of expected and unexpected accruals to asymmetric timeliness measure. Pae (2007) has modified Basu (1997) asymmetric timeliness model for capturing accounting conservatism by substituting expected and unexpected accruals for Earnings in Basu (1997) model. In banking industry, loan loss provisions occupy a critical role in reported financials. Many studies have proved usage of loan loss provisions for income smoothing purposes. In banks' financial statements, major components of accruals are comprised of loan loss provisions (i.e. provision for non-performing assets). Thus, this study uses discretionary and non-discretionary components of loan loss provisions as dependent variable in Basu (1997) model to assess the impact of earnings management practices on conditional accounting conservatism practices in Indian banking industry.

First, following Kanagaretnam (2003) the researchers decompose the provision for non-performing assets into discretionary and non-discretionary components using Opening Balance of Non-performing Assets, Change in Non-performing Advances and Change in Total Advances.

$$PNPA_{it} = \alpha_0 + \alpha_1 NPA_{it-1} + \alpha_2 \Delta NPA_{it} + \alpha_3 \Delta TA_{it} + \varepsilon_{it} \quad (4)$$

Where:

i = the bank; t = year,

$PNPA_{it}$ = provision for non-performing advances deflated by total assets,

NPA_{it} = non-performing advances deflated by total assets,

ΔNPA_{it} = change in the value of non-performing advances deflated by total assets,

ΔTA_{it} = change in the value of total advances deflated by total assets

ε_{it} = the error term

All the independent variables account for non-discretionary component of PNPA and are expected to be positive. Thus, the estimated value of PNPA based on regression results will give us non-discretionary PNPA (NDPNPA) while the residuals derived from above regression shall give discretionary PNPA (DPNPA). In other words, PNPA reported by bank in its financial statements less NDPNPA estimated from above regression is equal to DPNPA.

Second, using Pae (2007) Model the researchers test the third hypothesis. Pae (2007) measured the contribution of earnings components to the level of conditional

accounting conservatism by substituting accruals for earnings (E_{it}) in Basu (1997) model. Further, the author decomposed accruals into expected and unexpected components to capture the relative contribution of the two to the level of conditional accounting conservatism. The researchers modify the model for the purpose of this study to capture the impact of discretionary provision for non-performing advances on conditional accounting conservatism.

$$DPNPA^*_{it} = \alpha_0 + \alpha_1 D_{it} + \beta_0 R_{it} + \beta_1 R_{it} D_{it} + \varepsilon_{it} \quad (5)$$

$$NDPNPA^*_{it} = \alpha_0 + \alpha_1 D_{it} + \beta_0 R_{it} + \beta_1 R_{it} D_{it} + \varepsilon_{it} \quad (6)$$

Where:

i = the bank; t = year,

$DPNPA^*_{it}$ = discretionary provision for non-performing advances per share multiplied by total assets,

$NDPNPA^*_{it}$ = non-discretionary provision for non-performing advances per share multiplied by total assets,

R_{it} = the firm's common stock return from nine months before fiscal year-end t to three months after fiscal year-end t ,

D_{it} = one if R_{it} is negative ("bad news") or zero when returns are positive ("good news"), and

ε_{it} = the disturbance term

4. Empirical Results and Discussion

The study tests the three hypotheses mentioned above using models specified in equation 1 through 6.

Table 6: Regression results of Base Model using OLS (Equation 1)

Variables	Coefficient
Lag of PNPA	0.255**
ROA	0.049**
CAR	-1.9E-005
Δ EBTP	-0.138**
CDR	1.01E-006*
Ln(TA)	0.001**
NPA	0.082**
Δ GDP	-0.024*
Intt	0.008
Adj R square	0.257
D-W stat	1.889

**significant at 1% level

*significant at 10% level

The first hypothesis: It is tested using model 1. The OLS regression results for model 1 are presented in Table 6. Durbin-Watson test statistics within the acceptable range of 1.5 – 2.5. Autocorrelation does not exist in the sample of the current study. Adjusted R square is approximately 26%, which indicates the variation in dependent variable, while the remainder fraction indicates the variation in independent variables. The coefficient for lag of dependent variable is positive and significant ($P < 0.05$), indicating high tenacity in the figures of PNPA year-on-year basis. The coefficient for ROA is positive and significant ($P < 0.05$), indicating that one unit change in Return on Assets causes 0.05 unit change in PNPA. The findings reflect earnings management practised by managers of Indian banks during the period of study, which is congruent to the results of US banking industry (Greenawalt & Sinkey, 1988; Kanagaretnam *et al.*, 2003), Australian banking industry (Anandarajan *et al.*, 2007), and African banking industry (Desta, 2017). The coefficient for CAR is negative and insignificant ($P < 0.05$), which indicates Indian banks do not engage capital management practices. Although earlier study by Ghosh (2007) indicated that Indian banks are using PNPA for capital management purposes. Thus, RBI has been able to monitor the capital adequacy requirements of Indian banks efficiently during the period of the study. The coefficient for change in operating profit is negative and significant ($P < 0.05$), indicating a decline of 0.14 units in PNPA in response to 1 unit increase in operating profit change, hence, signalling hypothesis is disapproved. Indian banks are not using PNPA to signal growth in earnings as the study reflects inverse relationship between PNPA and Change in EBTP in contrast to positive relationship to prove the signalling hypothesis. The Credit Deposit Ratio coefficient is positive and significant ($P < 0.5$), which explains 1E-06 unit increase in PNPA due to a 1 unit increase in Credit Deposit ratio. The coefficient of Ln (total asset) is positive and significant ($P < 0.05$), which indicates the 0.001% increase in PNPA is due to a 1% increase in Ln (total asset). The coefficient of NPA is positive and significant ($P < 0.05$), which means 0.08 unit increase in PNPA is due to a 1 unit increase in NPA. The coefficient for growth rate of GDP is negative and significant ($P < 0.5$), while the coefficient for real interest rate is positive and insignificant. The findings indicate that if the economy is flourishing, provisions for NPA are on the lower side and vice-versa. Thus, the regression results prove that Indian banks are involved in earnings management but not in capital management using PNPA index. The post-BASEL regulations relating to CARs are stringent and bankers are not able to circumvent them.

Table 7: Regression results of base model using Fixed Effect (equation 1)

Variables	Coefficient
Lag of PNPA	-0.022
ROA	0.097**
CAR	-4.4E-005*
Δ EBTP	-0.141**
CDR	5.63E-006
Ln(TA)	0.001**
NPA	0.205**
ΔGDP	-0.010
Intt	-0.003
Adj R square	0.460

***significant at 1% level*

**significant at 5% level*

On conducting Levene's test ($P < 0.05$) for heteroscedasticity using fixed effects, the explanatory power of the model significantly improved. The results of model 1 using fixed effects are given in Table 7. Adjusted R-square increased from 26 % to 46% indicating that earnings management using provision for non-performing assets is prevalent in Indian banks. However, capital management and signalling using non-performing assets' provision is not evident.

Table 8: Regression Results of base model for category wise banks (equation1)

Variables	Listed Banks	Unlisted Banks	Public banks	Private Banks	Foreign Banks
Lag of PNPA	0.458411**	0.227874**	0.3255408**	0.456451**	0.228856**
ROA	0.04441*	0.050039	0.006875	-0.02765	0.0548
CAR	-2.1E-05	-2.2E-05	2.43079E-05	-2.8E-05	-2.6E-05
Δ EBTP	0.074082 [#]	-0.15439**	0.149901**	0.108416*	-0.17334**
CDR	-9.4E-07	1.26E-06	-5.188E-06	-1.4E-05	1.2E-06
Ln(TA)	0.000446**	0.000264	0.0003001 [#]	0.000707**	8.64E-05
NPA	0.182799**	0.057233**	0.233477**	0.104977**	0.052316**
Δ GDP	-0.01439*	-0.05508	-0.002982	-0.02662**	-0.07353
Intt	-0.01297**	0.01828	-0.024518**	-0.00602	0.025521
Adj R²	0.684	0.172	0.776	0.473	0.163

***significant at 1% level*

**significant at 5% level*

[#]significant at 10% level

Moreover, the study explores the earnings management, capital management and signalling behaviour for each category of the included banks. Regression model was run as specified in equation 1 using OLS with results illustrated in Table 8. Based on bank categorization, the results indicated markedly higher adjusted R-square for listed banks, and a positive coefficient of ROA for both listed and unlisted banks. Conversely, the positive coefficient of ROA is statistically significant for listed banks only, indicating presence of earnings management using PNPA in listed banks as opposed to unlisted banks in India. The coefficient for Δ EBTP for both listed and unlisted banks is statistically significant. However, it is positive in the case of listed banks indicating their signalling behaviour. As such, Indian listed banks engage earnings management and signalling practices due to stock market reactions. On

categorizing sample banks into public and private banks, the results reflect higher adjusted R-square among public banks in comparison to private banks. The coefficients for ROA and CAR are not significant, and thus earnings management and capital management is not proved in either cases. The signalling hypothesis is proved since the coefficients for $\Delta EBTP$ in both categories is positive and statistically significant ($P < 0.05$). Lastly, while model 1 is run only for foreign banks operating in India, their adjusted R-square is the least amongst all the categories reported in table 5.

Table 9: Basu's Model Results (equation 2)

Independent Variables	Model 2
D_{it}	0.0299 [#] (1.49)
R_{it}	0.0876 ^{**} (3.90)
$D_{it} \cdot R_{it}$	0.0764 [#] (1.56)
Intercept	0.1305 ^{**} (10.60)
Adj R²	0.118

Figures in bold and brackets are t-stats

**significant at 1% level

[#]significant at 13% level

The second hypothesis: It is tested using models 2 and 3. The results of model 2 are tabulated in Table 9. Adjusted R² is at acceptable level of 11.8%. The coefficient for $D_{it} \cdot R_{it}$ is significantly positive indicating higher sensitivity of accounting earnings towards negative stock market returns. It is observed that the intercept term is positive and significant, as equally reported by Basu (1997), Garcia *et al.* (2005) and Pae (2007). The results reveal that Indian banks recognize 'bad news' more quickly in their reported earnings as compared to 'good news'. In addition to the Basu's model, C_Scores are estimated as a measure of conditional conservatism given by Khan and Watts (2007) for robustness tests. The descriptive statistics of C_Scores is given in table 10, including the empirical properties of C_Scores to ensure the reliability of the measure as documented in previous studies.

Previous research suggest an inverse relationship between conditional and unconditional accounting conservatism (Richardson and Tinaikar, 2004; Beaver and Ryan, 2005). Firms, which follow conservative accounting policies that are more stringent, are expected to have lower book values, ceteris paribus. Hence, market-to-book ratio of firms following stringent accounting policies is expected to be relatively higher under constant conditions. Using M/B (market to book ratio) as a proxy of unconditional conservatism for studying the association between conditional and unconditional accounting conservatism, different categories of C_Scores derived using Khan and Watts (2007) for each bank-year are established decile-wise such that the lowest C_Scores are kept in Decile 1 and highest C_Scores in Decile 10.

Table 10: Descriptive Statistics of C_Scores

	Minimum	Maximum	Mean	Std. Deviation
C_Score	-0.04	0.62	0.0488	0.04295

After calculating mean values of M/B ratios for each decile, rank monotonicity between C_Score Decile and decile-wise mean of M/B ratio are determined. The results in Table 11 display highly significant negative rank correlation between C_Score decile and M/B ratio.

Table 11: Conditional Conservatism and Unconditional Conservatism

C_Score Decile	Market-to-book ratio (M/B)
Low	1.5309
2	0.98
3	0.999
4	1.9427
5	2.0233
6	1.0138
7	0.9912
8	0.851
9	1.0436
High	2.4827
Rank Correlation	-0.939**

**significant at 1% level

The third hypothesis: It is tested using the results obtained from models 4, 5 and 6. Model 4 is used to derive discretionary and non-discretionary components of PNPA. The collinearity statistics entailing VIF for all the independent variables is much less than 3, indicate that there is no multicollinearity problem in the independent variables used in the equation 4. Based on parameter estimates for equation 4, discretionary and non-discretionary components of PNPA are derived for each bank-year. The estimated PNPA using the regression model 4 provides the non-discretionary PNPA. The residuals of equation 4 provide the discretionary PNPA. Thus,
 $DPNPA_{it} = PNPA_{it} - NDPNPA_{it}$

Table 12: Regression Results of equation 4

Independent Variables	Coefficients
NPA_{it-1}	0.0824**
ΔNPA_{it}	0.1983**
ΔTA_{it}	-0.0117**
Adj R ²	0.286
D-W Stat	2.004

**significant at 1% level

The results of model 4 are given in table 12. All the coefficients of independent variables are highly significant. The coefficient for opening NPA and change in NPA are positive, and agree with prior empirical evidence (Singh, 2013). However, the

coefficient of change in TA is negative, and not in agreement with the prior literature. Durbin-Watson statistic is within the desirable range between 1.5 and 2.5, and indicate that problem of autocorrelation is not evident in the variables chosen for study based on a 28.6%, the adjusted R-square.

Table 13: Regression results of Equations 2, 5 & 6

Independent Variables	Model 2	Model 5	Model 6
D_{it}	0.0299 [#] (1.49)	9.37E-09 (1.14)	-5.9E-09 (0.36)
R_{it}	0.0876 ^{**} (3.90)	2.93E-09 (0.28)	-1.8E-08 (0.89)
$D_{it} \cdot R_{it}$	0.0764 [#] (1.56)	9.15E-09 (0.46)	-7.2E-08 [#] (1.83)
Adj R²	0.118	-0.005	0.040

Figures in bold and brackets are t-stats

***significant at 1% level*

**significant at 5% level*

#significant at 14% level

The models 5 and 6 are run to explore the contribution of discretionary and non-discretionary provision for non-performing assets to conditional accounting conservatism. Table 13 illustrates the results of model 2, 5 and 6, exhibiting the differential timeliness measure of conditional accounting conservatism given by coefficient of $D_{it} \cdot R_{it}$. If the coefficient is positive and significant, the presence of conditional accounting conservatism is proved based on original Basu (1997) model. In modified models 5 and 6, the coefficient of $D_{it} \cdot R_{it}$ should be negative and significant to prove the contribution of discretionary and non-discretionary provision towards conditional conservatism. The provision for NPA is expected to be higher for “bad news” scenario as against “good news” scenario. Thus, an inverse relation between PNPA and stock market returns is predicted to prove the hypotheses. Current results show that though banks are conditionally conservative in terms of creation of non-discretionary provision for non-performing assets, the same cannot be concluded about discretionary provision for non-performing assets. Results of model 2 and 6 reflect presence of conditional accounting conservatism, as opposed to the associated findings in model 5. The coefficient of $D_{it} \cdot R_{it}$ is negative and statistically significant based on model 6, while the coefficient of R_{it} is negative but not statistically significant. Consequently, in bad times, banks create higher NDPNA than required, and relative to the demands of the regulator. A “bad news” scenario is recognised more promptly than a “good news” scenario in the creation of non-discretionary component of provisions (NDPNA). Conversely, although banks are conditionally conservative, with respect to NDPNPA, they do not indicate the same practice in DPNPA.

Robustness checks: It established association of C_Scores with DPNPA and NDPNPA using rank correlation. Banks are categorised on the basis of C_Scores into ten deciles where Decile 1 consisted of least conservative banks and Decile 10

the most conservative banks. The study ascertained rank correlation between C_Scores deciles and mean values of DPNPA and NDPNPA for each decile. Table 14 below gives the results, which indicate a positive correlation between C_Score Decile and NDPNPA. The findings agree with results of model 6, but the correlation is not statistically significant.

Table 14: Rank Correlations between C_Scores and DPNPA, NDPNPA

C_Score Decile	NDPNPA	DPNPA
1	0.004078	0.000921
2	0.003978	0.000794
3	0.003965	0.000458
4	0.004082	0.000504
5	0.003549	-0.00025
6	0.004649	0.000332
7	0.004457	0.000329
8	0.004255	-0.00026
9	0.004276	6.72E-05
10	0.003496	-0.00067
Rank Corr.	0.176	-0.891**

***significant at 1% level*

Further, the rank correlation between C-Score decile and DPNPA is negative and statistically significant, which is indicative that more conservative firms create lesser discretionary provisions for NPAs.

5. Conclusion

Earnings management, capital management, and signalling in the banking industry have been topics of interest in research for some time, not only to scholars, but also to financial regulators and stakeholders. Since the banking industry is a highly regulated sector, the current study is indispensable in light of changes to regulations relating to Prudential Norms for Asset Classification and Provisioning Regulation of 2005. Moreover, capital adequacy requirements are becoming stringent year by year as per the RBI guidelines. This study is based on data pertaining to 84 Indian banks for the fiscal period beginning 2005 to 2016. The study was done to probe whether Indian banks were involved in using provisions for non-performing assets in the engagement of earnings management, capital management and signalling during the period of study. The results from the current study depict that Indian banks are engaged in earnings management practices using PNPA. However, they are not using PNPA for capital management and signalling better prospects. This study suggests a perspective that though there are strict guidelines implemented by RBI relating to classification of NPAs and creation of adequate provisions for meeting likely losses that may arise on loans becoming bad due to long repayment periods, Indian bankers have been involved in using discretion with regard to such classification of assets.

On decomposing provision for non-performing assets into discretionary and non-discretionary components and running the Basu model by substituting earnings with DPNPA and NDPNPA, it has been established that no asymmetrical timeliness exists with respect to DPNPA but asymmetric timeliness do exist with respect to NDPNPA. In the last few years, as RBI became stringent in the recognition of bad loans, the NPA ratio has progressively worsened year after year in the banking industry. A recent study conducted in 2027 by IMF described India as among the worst in G-20 countries on the parameter of NPA ratio. In concert with the study, the Indian banking industry tally 9.73% NPA ratio, which further, reflect presence of conditional accounting conservatism in the industry. On assessing the contribution of PNPA towards conditional conservatism, the results show that NDPNPA contribute to conditional accounting conservatism. Conclusively, it is noted that banks in India banks use DPNPA for earnings management rationale without regard for conditional conservatism practices.

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