Does Accounting Conservatism Vary Over the Credit Cycle?

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Abstract

We examine the effect of credit booms on lenders' demand for accounting conservatism. Using data from 1999 – 2009, we document a significant reduction in firms' accounting conservatism as well as a reduction in the use of debt covenants during the 2004 – 2007 credit boom, and these reductions are more pronounced in bank-dependent and high-default-risk firms. We also find that for non-bank-dependent firms, the reduction in accounting conservatism is concentrated in firms with a B rating. Our results are robust to using alternative measures of credit cycles and accounting conservatism. We conclude that credit booms have a significant impact on lenders' demand for conservative reporting by borrowers.

JEL: E32, E44, G21, G23, G30, M41

Keywords: Credit boom; credit cycles, accounting conservatism; monitoring incentives; bank-dependent firms

1. Introduction

Accounting conservatism is an important attribute of financial reporting in debt contracting because conservative financial reporting can allow creditors to effectively monitor a borrowing firm's financial condition and ability to pay during the life of the loan as well as restrain it from paying excessive dividends (Watts 2003a). Prior literature suggests that lenders can influence borrowing firms' conservative reporting (e.g., Ball, Robin, and Sadka 2008; Zhang 2008; Nikolaev 2010; Gormley, Kim, and Martin 2012). An implicit assumption in these studies is that lenders are concerned with the downside risk of the borrowing firms and use conservative financial reporting to monitor borrowers' financial condition. A stream of research on financial intermediation indicates that creditors' monitoring incentives can vary with credit cycles (Ruckers 2004; Dell'Ariccia and Marquez 2006; Rajan 2006). Given this variation in monitoring incentives, it is unclear whether lenders' demand for conservative reporting varies over different phases of the credit cycle. We study this issue by investigating whether credit cycles, particularly the recent credit boom during 2004 – 2007, alter lenders' demand for conservative reporting.

Financial intermediation theory suggests that, lenders can lower their lending standards because of either increased credit demand or increased credit supply during a credit boom. Modeling the effects of a credit boom on lending standards, Ruckers (2004) and Dell'Ariccia and Marquez (2006) conclude that when there are more borrowers entering the credit market, lenders tend to lower their screening efforts in order to compete for these new clients. Expansion of credit supply can also lead to lax lending standards because lenders (banks) are able to off-load credit risk through credit default swaps, loan sales, and loan securitizations, and thus to extend more credit to risky borrowers (Rajan 2006). Recent empirical evidence shows that an increase in either credit demand or credit supply can potentially affect lenders' incentives to screen and

monitor borrowers during a credit boom (e.g., Keys, Mukherjee, Seru, and Vig 2008; Dell'Ariccia, Igan, and Laeven 2012).

Given the lower lending standards and weakened lender monitoring efforts during a credit boom, we hypothesize a decrease in lender demand for borrower conservative reporting. A credit boom could also reduce lenders' demand for conservative reporting if it leads to an overall improvement in the collateral value of firm assets and reduced default risk, because lenders will be less concerned about the downside risk. We attempt to distinguish between these two alternative reasons for the expected decline in conservatism during a credit boom.

Based on Becker and Ivashina (2014), Billett, Elkamhi, Popov, and Pungaliya (2014), and Bord and Santos (2014), we identify 2004 – 2007 as a boom period and 1999 – 2003, 2008 – 2009 as a non-boom period, and compare reporting conservatism during these two periods. We use Basu's (1997) asymmetric timeliness coefficient to gauge accounting conservatism and investigate whether there is a decrease in accounting conservatism during the 2004 – 2007 credit boom. Based on a sample of 35,950 firm-years over 1999 – 2009, we find that firms exhibit significant reduction in reporting conservatism during the credit boom years of 2004 – 2007.

As noted earlier, a credit boom could affect lenders' demand for conservatism either because of increased collateral value or reduced monitoring incentives. To distinguish between these two explanations, we first examine whether bank-dependent firms experience a greater reduction in reporting conservatism than non-bank-dependent firms during the 2004 – 2007 credit boom.[1] Bank-dependent firms rely more on bank credit than on public debt, which makes them more sensitive to expansion in credit (Leary 2009; Faulkender and Petersen 2009; Chava

[1] Bank-dependent (non-bank-dependent) firms are firms that do not (do) have access to the public debt market (Kashyap, Lamont, and Stein 1994; Chava and Purnanandam 2011).

and Purnanandam 2012; Becker and Ivashina 2014). Accordingly, if the increase in available credit leads to a reduction in lenders' monitoring incentives and lower reporting conservatism, we expect this effect to be more pronounced for bank-dependent firms than for non-bank-dependent firms. In contrast, we do not expect the increase in the collateral value of assets during a credit boom to differ across bank-dependent firms and non-bank-dependent firms. Accordingly, if the reduction in conservative reporting during the credit boom is due to an increase in the collateral value of firm assets, we expect to observe a decline in accounting conservatism for both bank-dependent and non-bank-dependent firms. Our empirical analysis shows a decline in conservative reporting during the credit boom for bank-dependent firms but not for non-bank-dependent firms, indicating that the reduction in accounting conservatism is likely due to the expansion of credit during the boom period.

We next analyze whether the change in conservatism during the credit boom is different for high-risk and low-risk firms. If the reduction in demand for conservative reporting is due to increased collateral value, we do not expect to observe differential effects of the credit boom on accounting conservatism for high-default-risk and low-default-risk firms. However, if the reduction is due to lenders' reduced incentives to monitor risky borrowers, we expect a larger decline in accounting conservatism for firms with high default risk. We use expected default frequency (EDF), based on the KMV/Merton model, and asset volatility to measure firm default risk. We find that the decline in accounting conservatism is greater for high-default-risk firms than for low-default-risk firms. This evidence again indicates that the decline in reporting conservatism is likely due to creditors' lowered monitoring incentives than to increased collateral value of assets during the credit boom.

We conduct two additional sets of tests to provide further evidence that the observed decline in accounting conservatism during the credit boom is due to lenders' lowered monitoring incentives. First, relying on the theoretical prediction that use of debt covenants in debt contracts is an important way for creditors to monitor borrowers (Smith and Warner 1979; Rajan and Winton 1995) and the empirical findings that conservative reporting is positively associated with the use of covenants in debt contracts (Nikolaev 2010), [2] we analyze whether there is a change in the use of debt covenants during the credit boom.[3] Both univariate and multivariate analyses indicate a significant reduction in the use of financial and non-financial covenants during the credit boom, and this reduction is more pronounced in the debt contracts of bank-dependent and high-default-risk firms than in the debt contracts of non-bank-dependent and low-default-risk firms.

Second, we analyze whether lenders' lending activities, i.e., syndication of tradable loans, are related to changes in borrowers' accounting conservatism during the credit boom. The 2004 – 2007 credit boom is characterized by financial institutions' ability to move loan assets off their balance sheet through loan sales and loan securitization. Li, Saunders, and Shao (2014), Wang and Xia (2014), and Bord and Santos (2014) document that lenders' syndication of tradable loans and loan securitization affect their monitoring incentives, and firms borrowing from these lenders have lower operating performance and higher default risk. We use the transaction lender (TL) measure developed by Li et al. (2014) to capture lender incentives to monitor during a credit boom and compare changes in accounting conservatism during the credit boom of firms

[2] Nikolaev (2010) indicates that conservative reporting can improve the efficiency of debt covenants in debt contracts because conservative reporting makes covenants more binding and leads to more efficient monitoring of managers.

[3] Nikolaev (2010) particularly focuses on the debt covenants in public bond debt contracts and suggests that the presence of private debt agreements can attenuate the positive relation between debt covenants and accounting conservatism because private lenders have monitoring incentives. As the credit boom identified in our study is a boom associated with bank loans instead of public bond market (e.g, Billet et al, 2014; Becker and Ivashina, 2014), we use debt covenants in private debt agreement to gauge the change in the monitoring incentives of bank lenders.

that borrow from TLs and firms that borrow from non-TLs. Whereas we do not find that firms with outstanding loans from TLs exhibit a significantly greater reduction in accounting conservatism from the non-boom to the boom period than firms with outstanding loans from Non-TLs in the full sample, we observe that the reduction in accounting conservatism is significantly greater for bank-dependent firms with outstanding loans from TLs, but not for bank-dependent firms with outstanding loans from Non-TLs. We do not find any change in accounting conservatism for non-bank dependent firms regardless of whether they borrow from TLs or from Non-TLs.

The evidence presented so far supports our conjecture that the decline in the demand for conservative reporting during the credit boom relates to lenders' reduced monitoring incentives. However, we observe this evidence only for bank-dependent firms, which are firms that are more sensitive to credit supply. A logical follow-up question is whether any particular type of rated firm (i.e., non-bank-dependent firm) also exhibits a reduction in conservative reporting during the credit boom. To answer this question, we examine accounting conservatism of a subset of non-bank-dependent firms that experienced a significant increase in credit supply due to the rapid growth in securitization activities during the credit boom (Rajan 2006; Shivdasani and Wang 2011). Loan securitization allows loan originators to sell corporate loans to Collateral Loan Obligation (CLO) managers, which reduces loan originators' capital ratio constraint because such loan sales increase capital ratios. Benmelech and Dlugosz (2009) indicate that B rated firms were more likely to be securitized, and Nadauld and Weisbach (2012) document that because firms with a B rating (equivalent to Moody's senior debt credit rating B1- B3) are highly demanded for securitization purposes, these firms could borrow at lower cost compared to firms with a BB rating (equivalent to Moody's senior credit rating Ba1 – Ba3) during the 2004 – 2007

credit boom. Relatedly, Wang and Xia (2014) report that securitization-active banks lowered their monitoring of firms with a B rating during the 2004 – 2007 boom. If banks' lowered monitoring incentives are accompanied by reduced demand for conservative reporting, we expect a more pronounced decline in accounting conservatism for firms with a B rating than for firms with a BB rating. Our analysis shows that when compared to firms with a BB rating, firms with a B rating experience a significant decline in accounting conservatism in the boom period. This evidence again substantiates the argument that banks' lending practices led to a lower demand for conservative reporting during the credit boom.

In additional empirical analyses, we first expand the sample to include another credit boom, the period 1994 – 1998, that also experienced a marked increase in the volume of bank loans (Becker and Ivashina 2014). The results show that when compared to the non-boom period (1999 – 2003 and 2008 – 2009), the 1994 – 1998 period also witnessed a significant decline in accounting conservatism. We then document that the results are robust to using a constant sample, using two continuous measures of credit market conditions, controlling for non-discretionary accounting conservatism (Lawrence, Sloan, and Sun 2013), including firm fixed effects (Ball, Kothari, and Nikolaev, 2013), and using non-operating accruals as a measure of accounting conservatism.

Our study contributes to the existing literature in several ways. First, it adds to our understanding of the nature of the economic factors that affect the demand for conservative reporting. Whereas Ball et al. (2008) and Ball, Kothari, and Robin (2000) document that lenders' demand for accounting conservatism is associated with cross-country institutional factors such as the size of debt market and country legal origin, our study takes one step further by documenting the effect of credit conditions within a single country on lenders' demand for conservative

reporting. Our evidence is consistent with the prediction that expansion of credit could potentially lower lenders' monitoring incentives and, therefore, their demand for conservative reporting. The evidence that the decline in accounting conservatism is observed only for firms that are more sensitive to credit supply and for firms with higher default risk further strengthens the argument that a credit boom is associated with lowered demand for conservative reporting due to increased risky lending practices.

Second, our study also provides additional insight into Nikolaev's (2010) finding of a positive relationship between demand for accounting conservatism and use of covenants in public debt contracts. We use the variation in creditors' monitoring incentives during the credit cycle as an external stimulus to bank lenders' monitoring incentives and show that the lowered monitoring incentives during a credit expansion are accompanied by increased use of covenant-light bank loans and decreased accounting conservatism. Our evidence confirms the efficiency enhancing role of accounting conservatism in the use of debt covenants in debt contracts documented by Nikolaev (2010).

Lastly, our study also adds to the literature examining how financial system propagation affects firms' disclosure behavior (Lo 2014). We supplement this literature by showing that banks lower their demand for conservative reporting and allow more aggressive financial reporting during periods of increased credit.

The rest of this study is organized as follows. Section 2 reviews the related literature and develops the hypothesis. Section 3 presents the sample selection and research design. Section 4 discusses the results of the primary analyses, additional tests, and robustness checks, and Section 5 concludes the study.

2. Literature Review and Hypothesis Development

Financial intermediation theory indicates that credit booms could cause lenders to lower lending standards and lend to risky borrowers without careful screening, leading to an increase in lending volume and a deterioration in bank asset portfolio quality (Dell'Ariccia and Marquez 2006). In particular, the models developed by Ruckers (2004) and Dell'Ariccia and Marquez (2006) demonstrate that when there are more unknown borrowers entering the market, i.e., an increase in credit demand, lenders tend to relax their lending standards to compete for these new borrowers. Furthermore, the Dell'Ariccia and Marquez (2006) model shows that despite the adverse selection problem, lenders may find it profitable to not screen out bad borrowers and grant credit to all borrowers indiscriminately when they compete for each other's clients. Both the Ruckers (2004) and the Dell'Ariccia and Marquez (2006) models indicate that a credit boom or easing of lending standards is mainly due to increase in the demand for credit.

Less stringent lending standards could also be due to increased supply of credit as a result of reduced minimum capital ratio balance sheet constraints on banks. Banks can relax their required minimum capital ratio constraints by offloading credit risk through purchases of credit default swaps, securitizations, and sales of corporate loans on the secondary loan market, all of which enable banks to increase the amount of loans they can extend (Rajan 2006; Pennacchi 1988; Gorton and Pennacchi 1995). Furthermore, the entry of institutional investors in the credit market leads to an increase in the demand for risky loan assets by these investors (Nini 2008; Ivashina and Sun 2011). To cater to these institutional investors' demands, bank lenders increase their lending activities by offering more loans to risky firms (Rajan 2006; Shleifer and Vishny 2010; Shivdasani and Wang 2011). Empirical evidence shows that because of the increased demand for corporate loan assets during the 2004 – 2007 boom (i.e., greater supply of credit),

firms whose loans are highly demanded by institutional investors were able to obtain loans at lower rates (Nadauld and Weisbach 2012; Ivashina and Sun 2011) and banks reduced their "skin in the game" by retaining a lower percentage of the loans they syndicated (Bord and Santos 2014; Ivashina and Scharfstein 2010).

Empirical evidence suggests that the lowered lending standards during the 2004 – 2007 credit boom are associated with abnormal deterioration of firm performance after borrowing. For example, Keys et al. (2008) show that the enormous demand for mortgage-related securities led to a decline in lending standards and eventual default on these loans. Dell'Ariccia, Igan, and Laeven (2012) find that the loan denial rate in the U.S. mortgage market was relatively lower in areas with faster growth in credit demand, and lenders in these faster-growth areas relied less on hard information about applicants. Wang and Xia (2014) report that firms that borrowed from securitization-active banks experienced greater default risk and asset volatility after borrowing as compared to firms that borrowed from securitization-inactive banks. Consistent with Wang and Xia's findings, Li et al. (2014) document that firms borrowing from loan-selling active banks experience weaker operating performance and have lower credit quality after borrowing.

Watts (2003a, 2003b) suggests that conservative financial reporting can arise as a result of lenders' demand for timely recognition of bad news. This is because lenders are more sensitive to firms' downside risk and timely recognition of bad news can serve as an early warning signal of poor firm performance. Consistent with this argument, Chen et al. (2010) find that firms that borrow more from state-owned banks in China display less accounting conservatism because state-owned banks are more likely to be bailed out by the government if their loans default. Tan (2013) shows that lenders exhibit strong preference for conservative reporting when borrowers violate covenants, suggesting that lenders increase their monitoring

intensity by demanding higher accounting conservatism after covenant violations. Ball et al. (2008) find that the degree of financial reporting conservatism is positively related to the importance of a country's debt markets, suggesting that debt markets could have a significant impact on accounting practice.

If a credit boom either reduces borrowers' downside risk because of higher asset value or causes lenders to have lower monitoring incentives because of increased credit supply, we expect to observe a decline in conservative reporting during a credit boom. Accordingly, we hypothesize that:

> H1*: Accounting conservatism is lower during a credit boom than during a non-boom.*

We note that it is also possible that as lenders lower their lending standards and screening efforts, they could rely more on hard information such as financial reporting and demand more conservative reporting during a credit boom. Therefore, whether a credit boom is associated with higher or lower conservative reporting is ex ante unclear and remains an empirical question.

3. Research Design and Data

3.1 Identification of credit boom

Our study analyzes the effect of a credit boom on lenders' demand for accounting conservatism. Accordingly, in our baseline analysis, we compare accounting conservatism during a credit boom period to accounting conservatism during a non-boom period. Based on Becker and Ivashina (2014), Billett et al. (2014), and Bord and Santos (2014), we classify 2004 – 2007 as a credit boom period and 1999 – 2003, 2008 – 2009 as a non-boom period. In additional analysis, we expand the sample to include a second credit boom period, from 1994 – 1998. This

classification is also supported by the evidence in Becker and Ivashina (2014) that the volume of bank loans exhibited significant growth during 1994 – 1998, compared to other periods.

3.2 Measure of conservatism

We use Basu's (1997) asymmetric timeliness coefficient to measure accounting conservatism. This measure of accounting conservatism essentially reflects the speed with which earnings incorporates bad news relative to good news. Specifically, Basu (1997) estimates the following regression model:

$$\frac{E_{it}}{P_{it-1}} = \beta_0 + \beta_1 DR_{it} + \beta_2 R_{it} + \beta_3 DR_{it} * R_{it} + \varepsilon_{it} \quad (1)$$

Where

E_{it} = Earnings per share before extraordinary items of firm *i* in year *t*;

P_{it-1} = Stock price of firm *i* at the end of year *t - 1*;

R_{it} = Buy-and-hold return for firm *i* over the 12-month period ending three months after the end of fiscal year *t*;

DR_{it} = An indicator variable that equals 1 if R_{it} is negative, and 0 otherwise.

In equation (1), β_3 captures the asymmetric timeliness of bad news recognition in earnings relative to good news recognition in earnings.

To assess the effects of the credit boom on firms' conservative reporting, we augment the Basu (1997) model as follows to permit the asymmetric timeliness coefficient to differ across the different phases of the credit cycle and to control for other documented determinants of conservatism:

$$\begin{aligned} E_{it}/P_{it-1} = {} & \beta_0 + \beta_1 R_{it} + \beta_2 DR_{it} + \beta_3 R_{it} \times DR_{it} + \beta_4 Boom2_{it} + \beta_5 R_{it} \times Boom2_{it} + \beta_6 DR_{it} \times Boom2_{it} \\ & + \beta_7 R_{it} \times DR_{it} \times Boom2_{it} + \beta_{8-13} Control_{it} + \beta_{14-19} R_{it} \times Control_{it} + \beta_{20-25} DR_{it} \times Control_{it} \\ & + \beta_{26-31} R_{it} \times DR_{it} \times Control_{it} + \varepsilon_{it} \end{aligned} \quad (2)$$

Where:

Boom2 = An indicator variable that equals 1 if the observation is from years 2004 – 2007, and 0 otherwise;

Control = A vector of the following control variables:

MVE_{it-1} = Market value of equity (prcc_f*csho) of firm i at the end of year t – 1;

MB_{it-1} = Market value of equity divided by book value of equity (prcc_f*csho) /ceq of firm i at the end of year t – 1;

$Leverage_{it-1}$ = Book value of total debt divided by market value of equity ((dltt+dlc)/(prcc_f*csho)) of firm i at the end of year t – 1;

Age_{it-1} = Age of firm i at the end of year t – 1, measured as the number of years a firm is listed on CRSP;

Bid-Ask Spread$_{it-1}$ = Natural logarithm of bid-ask spread divided by average of bid and ask price, measured for firm i over the year of *t -1*;

LIT_{t-1} = An indicator variable that equals 1 if firm *i* belongs to one of the following industries at the end of year *t - 1*: Biotechnology (SIC codes 2833-2836 and 8731 and 8737), Computers (SIC codes 3570 – 3577 and 7370 – 7374), Electronics (SIC codes 3600 – 3674) and Retailing (SIC codes 5200 – 5961), and 0 otherwise.

All the variables in equation (2) are measured at the firm-year level, and the conservatism measure is allowed to vary with the credit boom indicator. The key coefficient of interest, β_7, reflects the difference in conservatism between the credit boom period and the non-boom period. A negative β_7 is consistent with the hypothesis that lenders have lower demand for conservative reporting during the credit boom period than during the non-boom period.

Equation (2) also controls for other firm-specific factors that may differentially affect conservatism across different phases of the credit cycle. Khan and Watts (2009) document that

market-to-book ratio, firm leverage, and firm size affect accounting conservatism; therefore, we control for these factors in our model. Khan and Watts (2009) also show that accounting conservatism is increasing in firm age and firm-level information asymmetry. LaFond and Watts (2008) document that information asymmetry between shareholders and managers is associated with greater demand for accounting conservatism. Accordingly, we include firm age and stock price bid-ask spread and their interaction terms as controls for the demand engendered by information asymmetry between shareholders and firms. Basu (1997) shows that litigation risk is positively associated with accounting conservatism. We follow prior literature and include an indicator variable that represents a firm's membership in high-litigation risk industries (Francis et al. 1994; LaFond and Roychowdhury 2008) to control for litigation risk. Finally, we control for 1-digit SIC code industry and year fixed effects to eliminate the influence of industry and other year-specific effects on the estimation and cluster standard errors at the firm level.

3. 3 Data and descriptive statistics

We obtain accounting and stock return data from Compustat and CRSP, respectively. We retain all firms in the intersection of these two databases with information available for our empirical tests. We remove financial firms (SIC codes between 6000 and 6999) and utilities firms (SIC codes between 4910 and 4940). To avoid the effects of extreme values, we exclude observations for firms whose stock prices do not exceed $1, and winsorize the top and bottom 1 percent of earnings per share and returns. Our final sample for the baseline analysis comprises 35,950 firm-year observations, including 26,438 bank-dependent and 9,512 non-bank dependent firm-year observations over 1999 – 2009. We discuss the data sources for the additional analyses in the corresponding sections.

Table 1 Panel A reports the descriptive statistics for the full sample in the boom (2004 – 2007) and non-boom (1999 – 2003; 2008 – 2009) periods, respectively. Panel A shows that leverage, market-to-book ratio, size (market value of equity), and bid-ask spread are significantly different between the boom and non-boom periods, underscoring the importance of controlling for these firm-specific characteristics in the multivariate analysis. Firm risk, measured by EDF and asset return volatility, is lower in the boom period and higher in the non-boom period.

Following Kashyap, Lamont, and Stein (1994) and Chava and Purnanandam (2011), we classify firms based on whether or not they have access to the public debt market to gauge the effect of firms' reliance on bank credit. Specifically, if a firm does not have a public debt rating in a given year, we classify the firm as bank-dependent; otherwise, we classify it as non-bank-dependent. Table 1, Panel B reports the descriptive statistics for the bank-dependent subsample, and Table 1, Panel C reports the corresponding statistics for the non-bank-dependent subsample in the boom (2004 – 2007) and non-boom (1999 – 2003; 2008 – 2009) periods, respectively. The percentage of bank-dependent firms (i.e., firms that do not have credit ratings) decreased from about 74% to 72% from the non-boom to the boom period, largely because of a significant increase in the proportion of B, BB and BBB rated firms. Bank-dependent (Panel B) and non-bank-dependent firms (Panel C) exhibit similar change in firm characteristics as the full sample, except for debt issuance activities. While the percentage of net debt issued relative to total assets increased from 0.2% in the non-boom period to 1% in the boom period for bank-dependent firms, the increase is much smaller for the non-bank-dependent firms (from 1.2% to 1.6%).[4] These statistics are consistent with the findings of prior studies that bank-dependent firms are more

[4] Untabluated statistics show that while bank-dependent firms borrowed significantly more during the 2004 – 2007 boom than during 1999 -2003, and non-bank-dependent firms did not. However, both non-bank-dependent and bank-dependent firms experienced a significant reduction in borrowing in the post boom period (2008- 2009), which may be the main reason that net debt issued is also lower in the non-boom period for the non-bank-dependent firms.

sensitive to credit cycles because they have limited access to the public debt market (Leary 2009; Faulkender and Petersen 2009; Chava and Purnanandam 2012; Becker and Ivashina 2014).

4. Empirical Results

4.1 Credit boom and accounting conservatism: Full sample

We estimate equation (2) using pooled OLS regressions to test our main hypothesis and report the results in column (1) of Table 2. The coefficient β_7 on *R*DR*Boom2* is -0.061 and statistically significant at the 1% level, indicating that when compared to the non-boom period, firms report less conservatively during the credit boom. In order to examine whether the observed difference in accounting conservatism in column (1) is attributable to either the difference between the boom and pre-boom periods (1999 – 2004) or between the boom and post-boom periods (2008 – 2009), we add an indicator variable, *Post_Boom2*, for observations from the post-boom years 2008 – 2009, and its interactions with *R* and *DR*. We report the results for this expanded model in column (2). The coefficient on *R*DR*Boom2* is significantly negative, indicating that accounting conservatism during the credit boom is reliably lower than it is in the pre-boom period. Additionally, the coefficient on *R*DR*Boom2* is significantly more negative than the coefficient on *R*DR*Post_Boom2*, indicating that accounting conservatism during the credit boom is reliably lower than it is during the post-boom period. These results confirm that the observed difference in conservatism between the boom and non-boom periods holds for both the pre-boom and post-boom periods. Also of note is that the coefficient on *R*DR*Post_Boom2* is insignificant, indicating that reporting conservatism in the post-boom period is not reliably different from that in the pre-boom period, again supporting our boom/non-boom classification in the primary analysis in column (1).

4.2 Credit boom and accounting conservatism: Bank-dependent and non-bank-dependent firms

Next, we examine the change in accounting conservatism from the non-boom period to the credit boom period for bank-dependent firms and non-bank dependent firms. As discussed earlier in the descriptive statistics, bank-dependent firms and non-bank-dependent firms exhibit differences in borrowing activity during the credit boom. While bank-dependent firms borrow more during the credit boom, non-bank-dependent firms do not exhibit a significant increase in their borrowing activities.[5] Table 3 presents the estimation results of equation (2) for bank-dependent firms (column (1)) and non-bank-dependent firms (column (2)). The coefficient on *R*DR*Boom2* is negative and statistically significant at the 1% level for the bank-dependent sample, indicating a significant decline in accounting conservatism for these firms during the credit boom. In contrast, the coefficient on *R*DR*Boom2* is negative but insignificant for the non-bank-dependent firms, indicating negligible change in non-bank-dependent firms' accounting conservatism during the credit boom. The difference in the coefficients on *R*DR*Boom2* between the bank-dependent sample and the non-bank-dependent sample is statistically significant at the 10% level. This evidence suggests that while lenders may have loosened their lending standards during the credit boom because of the lower monitoring incentives, the effect is especially noticeable for bank-dependent firms.

The Table 3 results also show that the coefficient on *R*DR*, β_3, which is the estimate of accounting conservatism in the non-boom period, is lower for the bank-dependent sample (β_3 = 0.337) than for the non-bank-dependent sample (β_3 = 0.434). This result is consistent with the

[5] Based on the findings of Ball et al. (2008) and Khan and Watts (2009) that firms' leverage ratios are associated with lenders' demand for conservative reporting, we expect a larger increase in conservative reporting for bank-dependent firms than for non-bank-dependent firms during the credit boom. However, this expectation is not supported by the data.

idea that firms with public debt have higher reporting quality (Bharath et al. 2008; Nikolaev 2010). However, the difference in β_3 between the two samples is not statistically significant.

4.3 Credit boom and accounting conservatism: High default risk and low default risk

The effect of the credit boom on lenders' monitoring incentives could be due to higher collateral value of firm assets or to banks' aggressive lending practices and risk-taking behavior (Rajan, 2006), both of which could lead to a lower demand for conservative reporting. To distinguish between whether the reduction in accounting conservatism is due to banks' risk-taking behavior or to higher collateral value of firm assets, we examine whether the reduction in accounting conservatism is associated with firms' default risk. Beatty et al. (2008) show that creditors demand more conservative reporting from firms with higher credit risk and Tan (2013) shows that firms report more conservatively after financial covenant violations. If the credit boom simply causes banks to engage in excessive risky lending without sufficient monitoring, we expect the decline in conservatism to be concentrated among firms with higher default risk. By contrast, if the credit boom causes a change in the collateral value of firm assets to the same extent for both high-default-risk and low-default-risk firms and the increased collateral value of firm assets is the main driving force behind the reduction in the accounting conservatism during the credit boom, we expect to observe no difference in the change in accounting conservatism between high-default-risk and low-default-risk firms during the credit boom. We test these predictions by estimating equation (2) separately for firms with high default risk and firms with low default risk. We use expected default frequency (EDF), based on the KMV/Merton (1974) model, and asset volatility to measure default risk.

Table 4 presents the results of these analyses. We partition the sample into two subsamples based on whether EDF/asset volatility is greater than or less than the median value of

EDF/asset volatility each year, and analyze the effect of the credit boom on accounting conservatism for the high and low EDF/asset volatility samples separately. Columns (1) and (2) show that when we use EDF as the measure of default risk, the coefficient on *R*DR*Boom2* is negative and significant for the high EDF subsample (β_7 = -0.066; t- statistic = -2.861) and negative but insignificant for the low EDF subsample (β_7 = -0.023; t- statistic = -1.460). The difference in the coefficients between the two subsamples is statistically significant at the 10% level. When we use asset volatility as the measure of default risk, the coefficient on *R*DR*Boom2* is negative and statistically significant at the 5% level (β_7 = -0.052; t- statistic = -2.472) for the high asset volatility subsample (column (3)), but it is not reliably different from zero (β_7 = -0.012; t-statistic = -0.467) for the low asset volatility subsample (column (4)). The difference in the coefficients on *R*DR*Boom2* is significant at the 5% level. These results, together with the results using EDF as the measure of default risk, provide evidence that the observed reduced conservative reporting during credit boom is not due to an increase in the asset value of firms but due to creditors' aggressive risk-taking behavior.

4.4 Evidence from the use of covenants in debt contracts of reduced lender monitoring during the credit boom

We argue that lenders' lowered monitoring incentives during the credit boom is the main driving force that leads to lower accounting conservatism. However, because lenders' monitoring activities are not observable, we attempt to substantiate our argument that the lower accounting conservatism during credit boom is due to lowered monitoring incentives by investigating whether debt covenants are less likely to be used in debt contracts during the credit boom. Rajan and Winton (1995) and Smith and Warner (1979) suggest that to reduce the agency problem of debt contracting, lenders use both financial and non-financial covenants to monitor borrowers.

Nikolaev (2010) argues that lenders demand more conservative reporting when there is greater usage of debt covenants in debt contracts and documents a positive association between accounting conservatism and the use of debt covenants. Consequently, if lenders have lower monitoring incentives during the credit boom, we expect to observe a reduction in the use of debt covenants accompanying the reduced incentives to demand conservative reporting. Accordingly, we compare the use of covenants in debt contracts during the credit boom and non-boom periods.

We obtain loan data from Dealscan for loans issued by public companies between 1999 and 2009. First, we count the number of financial and total covenants (financial and non-financial) in each loan contract and compare the unconditional change in the use of financial and non-financial covenants from non-boom years to boom years. Untabulated results show that the incidence of both financial and non-financial covenants decreased significantly during the boom period; the use of financial covenants decreased from 1.62 per loan to 1.51 per loan, representing a 6% decline and the use of both financial and non-financial covenants decreased about 3%. Furthermore, the debt contracts of bank-dependent firms exhibit an approximately 7% (3%) decrease in the use of financial (financial and non-financial) covenants whereas the debt contracts of non-bank-dependent firms show an insignificant increase. Similarly, we observe a decline in the use of financial (financial and non-financial) covenants of about 10% (5%) for the high default risk sample (high EDF), but an insignificant increase for the low default risk sample (low EDF).

We next conduct multivariate analysis examining the change in the use of covenants from non-boom years to boom years. We construct two measures of the intensity of covenant usage in debt contracts, *Findex* and *Covindex*, calculated as the total number of the financial covenants and total covenants, respectively, divided by the largest number of financial and total covenants

observed in all debt contracts. We use *Findex* and *Covindex* as dependent variables and estimate an OLS regression similar to the model used by Nikolaev (2010). To capture the effect of the credit boom on the use of debt covenants, we use the indicator variable *Boom2*, that equals one if the debt is borrowed during the credit boom period, and zero if it is borrowed during the non-boom period. As in Nikolaev (2010), we include natural logarithm of assets, market-to-book ratio, leverage, return on assets, loss indicator, assets tangibility, dividend yield, Z-score, natural logarithm of loan size, and loan amount as control variables, and an indicator variable for the use of collateral in the loan contract. We estimate the regression models for the full, the bank-dependent, the non-bank-dependent, and the high and the low default risk samples. We include credit rating fixed effects for the full sample, the non-bank-dependent sample, the high default risk sample, and low default risk sample analyses. We also include industry and year fixed effects in all models.

Table 5 reports the estimation results. Panel A reports the results for the full, the bank dependent, and the non-bank dependent samples, and Panel B reports the results for the high and the low default risk samples using EDF as the measure of default risk.[6] In Panel A, the coefficient on *Boom2* in column (1) is -0.081 (t-statistic = -10.337) indicating that lenders reduce the usage of financial covenants by 8.1% during the boom period, after controlling for factors affecting the use of debt covenants; the percentage of reduction is similar for the usage of total covenants (column (4)). Columns (2), (3), (5), and (6) indicate that this reduction is more pronounced in the debt contracts of bank-dependent firms than non-bank-dependent firms. In Panel B, we similarly observe that after controlling for factors affecting the usage of debt covenants, the decline in the use of financial (total covenants) is more significant in the high default risk sample than in the low default risk sample and the difference in the coefficients on

[6] Untabulated results show that the results are similar when we use asset volatility as a measure of default risk.

Boom2 between the two samples is significant at the 1% level. This evidence is consistent with the evidence provided in sections 4.1, 4.2, and 4.3, and suggests that lenders lowered their monitoring incentives and required less financial and non-financial covenants in debt contracts, leading to lower accounting conservatism, particularly in bank-dependent firms and high default risk firms.

4.5 Do lenders' lending activities affect borrowers' accounting conservatism during the credit boom?

In Sections 4.1 – 4.4, we present evidence supporting the reasoning that because lenders have lower monitoring incentives during the credit boom, they have lower demand for conservative reporting. In this section, we provide further evidence on the link between lenders' monitoring incentives and demand for conservative reporting during the credit boom by investigating whether a specific type of lending activity that is associated with reduced monitoring incentives is related to lower reporting conservatism for firms that borrow from lenders that are active in this type of lending activity.

We use the Transaction Lender (TL) measure developed by Li et al. (2014) to identify lenders that may have weaker monitoring incentives during a credit boom. Relying on the theoretical literature that lenders' activities in loan trading can potentially lower their monitoring incentives, Li et al (2014) show that firms borrowing from banks that are very active in syndicating tradable loans have weaker operating performance and higher default risk. Their evidence is in line with Wang and Xia (2014) and Bord and Santos (2014), who examine the effect of banks' securitization activities on banks' monitoring incentives. These studies also show that lenders' activities in syndicating tradable or securitizable loans increased significantly during the 2004 – 2007 credit boom. Such activities can potentially affect lenders' demand for

conservative reporting because lenders may lose their incentives to monitor the downside risk as long as they can easily offload these loans through securitization or trading. Accordingly, we expect a credit boom to have a greater impact on accounting conservatism for firms that borrow from lenders that actively engage in syndicating tradable loans (i.e., transaction lenders).

Following Li et al. (2014), we define a transaction lender (TL) as a lender with traded loans relative to total syndicated loans prior to current borrowing among the top 20 percent. If a borrower has at least one loan outstanding from such a lender before the end of the current fiscal year, we classify the borrower as a TL borrower (TLB). To construct the TL measure, we use new loan issues and secondary loan sales data from Reuters Loan Pricing Corporation's (LPC) Dealscan syndicated loan database and LSTA/LPC Mark-to-Market Pricing Services from 2000 to 2009. We re-estimate equation (2) for the TLB sample and the Non-TLB sample and present the results in Table 6.

In columns (1) and (2), we group bank-dependent firms and non-bank-dependent firms together. We observe that TLB and Non-TLB firms exhibit a decline in accounting conservatism, but neither is significant. We next examine whether the change in accounting conservatism exhibits a different pattern for bank-dependent firms and non-bank-dependent firms during the credit boom. Columns (3) and (4) show the results for the bank-dependent sample. The coefficient on *R*DR*Boom2* is -0.163 and is statistically significant at the 5% level for the TLB sample; it is not significantly different from zero for the non-TLB sample. The difference in the coefficients between the TLB and Non-TLB samples is statistically significant at the 5% level. These results indicate that there is a significant decline in accounting conservatism from the non-boom to the boom period for bank-dependent firms with outstanding loans from TLs; in contrast, bank-dependent firms with outstanding loans from Non-TLs do not exhibit a significant change

in accounting conservatism during the credit boom. Columns (5) and (6) report the corresponding results for the non-bank-dependent firms. For neither subsample, i.e., with loans from TLs or from Non-TLs, do we observe a significant change in accounting conservatism during the boom period. This evidence supports the argument that the observed lower accounting conservatism during the credit boom is due to lenders' reduced monitoring incentives associated with their lending activities.

4. 6 Does a subset of non-bank dependent firms have lower monitoring incentives and exhibit a lower degree of conservative reporting during the credit boom?

The evidence presented so far suggests that the effect of the credit boom on accounting conservatism is largely confined to bank-dependent firm. This result is not surprising because bank monitoring is more important for bank-dependent firms and a credit boom has a more pronounced effect on bank-dependent firms. A natural question that arises is whether non-bank-dependent firms are immune to lenders' reduced monitoring incentives during the credit boom. Indeed, several studies suggest that monitoring incentives are lower for firms with a B rating during the 2004 – 2007 credit boom (e.g., Rajan 2006; Wang and Xia 2014; Nadauld and Weisbach 2012) because securitization of corporate loans was mainly concentrated in loans borrowed by firms with a B rating (e.g., Benmelech and Dlugosz 2009; Naduald and Weisbach 2012) during this boom. As a result of the rise in securitization activities during the 2004 – 2007 credit boom, credit supply increased significantly for firms with B ratings (Rajan 2006; Nini 2008; Shivdasani and Wang 2011; Nadauld and Weisbach 2012). Wang and Xia (2014) show that the performance of firms with a B rating deteriorated to a greater extent after these firms borrowed from securitization-active banks than from inactive banks. Nadauld and Weisbach (2012) suggest that the demand for securitizable loans significantly drives down the price

charged for these loans. They find a significant drop in the spread of Term Loan B facilities[7] and the drop in spread of Term Loan B facilities is mostly concentrated in B rated borrowers. Furthermore, the overheated market conditions driven by large Collateral Loan Obligation (CLO) issuance and institutional investors' demand for corporate loans caused a reduction in lead lenders' retained shares in loans ("skin in the game") (Ivashina and Scharfstein 2010; Bord and Santos 2014), which also reduced lenders' monitoring incentives.

The preceding discussion indicates that the credit expansion for rated firms was mainly concentrated in firms with a B rating; therefore, we investigate whether firms with a B rating exhibit a decline in accounting conservatism during the 2004 – 2007 credit boom. Beatty et al. (2008) and Monahan (2008) indicate that because of higher agency costs and default risk, the demand for conservative reporting is greater for firms with lower credit ratings than for firms with higher credit ratings. If the demand for B rated loans increased during the credit boom due to loan securitization and therefore led to lower monitoring incentives and lower demand for conservative reporting, we expect the decrease in conservatism from the non-boom to the boom period for B rated firms to be more pronounced that the corresponding change for other rating categories, such as BB rated firms. We estimate the following model to test this prediction:

$$\begin{aligned} E_{it}/P_{it-1} = {} & \beta_0 + \beta_1 R_{it} + \beta_2 DR_{it} + \beta_3 R_{it} \times DR_{it} + \beta_4 B_{it} + \beta_5 DR_{it} \times B_{it} + \beta_6 R_{it} \times B_{it} \\ & + \beta_7 R_{it} \times DR_{it} \times B_{it} + \beta_8 Boom2_{it} + \beta_9 DR_{it} \times Boom2_{it} + \beta_{10} R_{it} \times Boom2_{it} \\ & + \beta_{11} R_{it} \times DR_{it} \times Boom2_{it} + \beta_{12} B_{it} \times Boom2_{it} + \beta_{13} B_{it} \times DR_{it} * Boom2_{it} \\ & + \beta_{14} B_{it} \times R_{it} \times Boom2_{it} + \beta_{15} B_{it} \times R_{it} * DR_{it} \times Boom2_{it} + \beta_{16-21} Control_{it-1} \\ & + \beta_{22-27} R_{it} \times Control_{it-1} + \beta_{28-33} DR_{it} \times Control_{it-1} \\ & + \beta_{34-39} R_{it} \times DR_{it} \times Control_{it-1} + \varepsilon_{it} \end{aligned} \quad (3)$$

[7] In the syndicated loan market, a loan deal typically contains several loan facilities, for example, revolving credit and term loans. According to Nadauld and Weisbach (2012), while Term Loan A facilities are typically senior loans retained by issuing banks or purchased by other commercial banks, Term Loan B facilities are senior and usually purchased by institutional investors. Nadauld and Weisbach (2012) indicate that Term Loan B facilities are more likely to be purchased as CLO collateral and securitized during the 2004- 2007 credit boom because of their longer maturity.

Where:

B_{it} = an indicator variable that equals 1 if firm *i*, in year *t*, has a B rating (B-, B+, B), and 0 if it has a BB rating (BB-, BB, BB+);

All other variables are as defined in equation (2).

In this research design, we use firms with a BB rating as a control group to control for factors other than the credit boom, such as change in the regulatory environment or increase in the asset values of firms, which could affect firms' accounting conservatism. As discussed earlier, the 2004 – 2007 credit boom led to greater credit availability for B rated firms, which in turn could have reduced monitoring incentives and demand for conservative reporting. Accordingly, we expect that the decline in conservatism is more pronounced for firms with a B rating than for firms with a BB rating. The key coefficient of interest is β_{15}, the coefficient on *B*R*DR*Boom2*, which reflects the difference in the change in accounting conservatism from the non-boom period to the credit boom period between firms with a B rating and firms with a BB rating. We expect β_{15} to be negative.

To conduct a cleaner test, we require that the sample firms have a B (BB) rating in both the boom and the non-boom years.[8] We report the results in Table 7. In columns (1) and (2), we report the results without and with controls for firm characteristics, respectively. The coefficient on *B*R*DR*Boom2* is - 0.288 (t-statistic = -2.653) in column (1) and -0.261 (t-statistic = -2.567) in column (2) after controlling for firm characteristics, indicating that the B rated firms experienced a significant reduction in accounting conservatism during the credit boom period relative to the BB rated (control) firms. The positive coefficient on *B*R*DR* (β_7= 0.173; t-statistic = 2.882) in column (2), which represents the incremental asymmetric timeliness of B

[8] The results still hold if we include firms whose ratings change from B to BB or from BB to B within boom and non-boom years.

rated firms over BB rated firms in the non-boom period, is consistent with the results of Beatty et al. (2008) that firms with lower credit ratings exhibit more conservative reporting.

In columns (3) and (4), we re-estimate equation (3) after replacing the indicator variable *B* and its interaction terms with the indicator variable *BB*, which equals 1 for firms with a BB-, BB, or BB+ rating, and 0 for firms with a BBB-, BBB, or BBB+ rating, and its interaction terms. This analysis helps rule out the alternative explanation that the relative decline in conservatism for B rated firms is because the rating difference interacts with the credit boom and not because B rated firms are more likely to be securitized, which weakens lenders' monitoring incentives. If we also observe a relative decline in conservatism for BB rated firms versus BBB rated firms, then the evidence presented in columns (1) and (2) cannot be completely attributed to lenders' lowered monitoring incentives for B rated firms during the credit boom. However, if we do not detect a substantial difference in accounting conservatism for BB rated firms relative to BBB rated firms, then we will have more confidence that lenders' loosening of monitoring incentives during the credit boom is the primary driving force behind the observed lower accounting conservatism of firms with a B rating. The results support the latter explanation. The coefficient on *BB*R*DR*Boom2* is 0.033 (t-statistic = 0.337) in column (3) and 0.042 (t-statistic = 0.465) in column (4), indicating that the BB rated firms do not experience a significant reduction in accounting conservatism during the credit boom period relative to the BBB rated (control) firms. Untabulated results also show that the columns (1) and (2) results hold if we compare the change in accounting conservatism of B rated firms with both BB and BBB rated firms or with all other firms with BB and higher ratings.

4.7 Does history repeat itself? Examination of other periods of credit boom and non-boom

In order to examine whether the observed reduction in conservatism during the 2004 – 2007 credit boom is not specific to only that boom because of its unique features, we expand the baseline analysis to include another credit boom that occurred in 1994 – 1998. We base the identification of these credit cycle phases on Becker and Ivashina (2014), who document abnormally high lending activity during 1994 -1998. We estimate the following model over the period 1994 – 2009:

$$\begin{aligned} E_{it}/P_{it-1} = {} & \beta_0 + \beta_1 R_{it} + \beta_2 DR_{it} + \beta_3 R_{it} \times DR_{it} + \beta_4 Boom1 + \beta_5 R_{it} \times Boom1 \\ & + \beta_6 DR_{it} \times Boom1 + \beta_7 R_{it} \times DR_{it} \times Boom1 + \beta_8 Boom2 + \beta_9 R_{it} \times Boom2 \\ & + \beta_{10} DR_{it} \times Boom2 + \beta_{11} R_{it} \times DR_{it} \times Boom2 + \beta_{12-17} Control_{it} + \beta_{18-23} R_{it} \times Control_{it} \\ & + \beta_{24-29} DR_{it} \times Control_{it} + \beta_{30-35} R_{it} \times DR_{it} \times Control_{it} + \varepsilon_{it} \end{aligned} \quad (4)$$

Where:

Boom1 = an indicator variable that equals 1 if a firm-year observation is from 1994 – 1998, and 0 otherwise;

Boom2 = an indicator variable that equals 1 if a firm-year observation is from 2004 – 2007, and 0 otherwise.

The default group is observations in the non-boom years 1999 – 2003 and 2008 – 2009. The results are reported in Table 8 with Columns (1), (2), and (3) showing the results for the full sample, the bank-dependent sample, and the non-bank-dependent sample, respectively. The coefficient on *R*DR*Boom1* (β_7) captures the effect of the 1994 – 1998 credit boom on reporting conservatism. β_7 is negative and significant for the full sample (β_7 =-0.065, t-statistic = -5.805) and for the bank-dependent sample (β_7 = -0.067, t-statistic = -5.436), but not statistically significant for the non-bank-dependent sample (β_7 =-0.038, t-statistic = -1.416). These expanded sample analyses confirm the findings in section 4.1 that a credit boom is

associated with lower reporting conservatism for bank-dependent firms only. The coefficients on *R*DR*Boom2* are also negative and statistically significant at the 1% level in the full sample and the bank-dependent sample, confirming that relative to the non-boom period of 1999 – 2003and 2008 – 2009, firms report less conservatively in the 2004 – 2007 credit boom period. Furthermore, the coefficients on *R*DR*Boom1* (β_7) and *R*DR*Boom2* (β_{11}) are not significantly different, suggesting that two credit booms had similar implications for accounting conservatism.

4.8 Robustness tests

4.8.1 Using a constant sample

The sample for our main analysis includes all firms with available data. It is possible that the documented decline in accounting conservatism during the credit boom is due to firms with less (more) conservatism entering (leaving) the sample during the credit boom years. To rule out this potential explanation for the observed decline in conservatism during the credit boom, we repeat the main analysis using a constant sample that requires sample firms to have data in both the boom and the non-boom years. Consistent with the primary results reported in Table 2, the results in Table 9, Panel A for this constant sample show a significant decline in conservatism during the credit boom. These results demonstrate that our primary findings are not attributable to variation in sample composition during the credit boom and non-boom periods.

4.8.2 Using a continuous measure of credit cycles

In the main analysis and the expanded sample analysis, we use the dichotomous variables *BOOM1* and *BOOM2* to examine the effect of the two boom periods on accounting conservatism. We focus our analysis on *BOOM2* mainly because there were many interesting developments in the credit market (e.g., increased loan supply through loan securitization and loan sales) during

the 2004 – 2007 boom that could potentially affect lenders' demand for accounting conservatism. In this section, we examine whether our findings are robust to the use of two continuous measures that reflect credit market conditions.

The first measure is *Tightening* in lending standards, which is based on the opinions of Senior Loan Officers of major U.S. commercial banks and branches of foreign banks on bank lending practices. We obtain the quarterly survey results from the U.S. Federal Reserve Bank's website.[9] The survey results report the net percentage of domestic respondents tightening their lending standards for commercial and industrial (C&I) loans to large- and medium-sized firms. We calculate the average of this variable for each year and use the mean-centered value of the average percentage of domestic respondents tightening their lending standard, *Tightening*, in the regression to reduce problems with multicollinearity among the interaction terms (Neter et al., 1989; Aiken and West, 1991). The second measure, *Lending Growth*, is the aggregate lending growth of loans to nonfinancial firms obtained from the U.S. Flow of Funds Accounts. We use the mean-centered values of *Lending Growth* in our model. Because we argue that firms' reporting practices respond to changes in lending standards, we use lagged *Tightening* and lagged *Lending_growth* in the regressions and estimate a model similar to equation (2) after replacing *BOOM2* and its interaction terms with *Tightening* or *Lending_growth* and their respective interaction terms.

We report the results in Table 9, Panel B. Columns (1) – (3) show the results with *Tightening* as the measure of credit market condition and columns (4) – (6) show the corresponding results using *Lending_growth*. The positive coefficient on *Tightening*R*DR* (β_7 = 0.057; t- statistic = 1.960) indicates that firms exhibit greater conservative reporting when

[9] More information about this survey can be found at the website: http://www.federalreserve.gov/boarddocs/snloansurvey/about.htm

lending standards are tightened. The results reported in Column (2) suggest that the effect of *Tightening* is strong in bank-dependent firms with a larger and more significant coefficient on *Tightening*R*DR* (β_7 = 0.084; t- statistic = 2.529); the coefficient on *Tightening*R*DR* in the non-bank-dependent sample is negative and significant, indicating that tightening in lending standards may reduce accounting conservatism of non-bank-dependent firms during the credit boom. The results using *Lending_growth* as a measure of credit market condition are similar to the results using *Tightening*. The negative coefficient on *Lending_growth*R*DR* in the full sample (β_7 = -0.015; t-statistic = -2.995) suggests that following lending growth, firms reduce their reporting conservatism on average. Once again, we observe this negative relation only for the bank-dependent sample.

4.8.3 Controlling for non-discretionary accounting conservatism

Lawrence et al. (2013) suggest that the observed asymmetric timeliness in the Basu (1997) earnings-return regression can also be due to accounting rules requiring impairment and write-off when the fair value of assets is below the book value. Lawrence et al. (2013) refer to this as non-discretionary accounting conservatism. In this section, we report the estimation results after controlling for non-discretionary accounting conservatism. Specifically, we argument equations (2) – (4) by including firm performance and the amount of tangible assets[10] and their interactions with *R* and *DR* as well as an indicator variable for high book-to-market ratio).[11] In Table 10, we report the estimation results for the full, bank dependent, and non-bank dependent samples. The results show that, although the estimated reduction in accounting conservatism in the credit

[10] Firm performance is an indicator variable that equals 1 if the average ROA or stock returns in year t-1 and year t-2 is less than 5%, and 0 otherwise. The amount of intangible assets is calculated as intangible assets in year t – 1 divided by assets in year t – 1. Intangible assets are set to 0 if the information about intangible assets is missing.
[11] Lawrence et al. (2013) also include an indicator variable for high book-to-market ratio in year t -1. The impact of the book-to-market ratio is controlled in our baseline model by including market-to-book ratio in year t-1 and its interactions with R and DR.

boom period is smaller than that obtained in the models that do not control for non-discretionary conservatism, the reduction is still statistically significant in the full sample (β_7 = - 0.048; t - statistic = -3.246) and the bank-dependent sample (β_7 = -0.052; t-statistic = -3.176). Consistent with the estimation results without controlling for non-discretionary conservatism, the coefficient on *R*DR*Boom2* for the non-bank-dependent sample is not statistically significant. Untabulated results also show that the results reported in Tables 4, 6, 7, and 8 remain qualitatively similar even after we control for non-discretionary conservatism, suggesting that the effect of the credit boom on accounting conservatism is not solely driven by non-discretionary accounting conservatism.[12]

4.8.4 Controlling for firm fixed effects

Ball, Kothari, and Nikolaev (2013) suggest that using the Basu (1997) piecewise return-earnings relation to gauge conditional conservatism may be subject to omitted variable bias. They suggest controlling for firm-specific factors as well as using firm fixed effects regression to control for the omitted variable problem. In our main analysis, we control for the effects of firm size, leverage, market-to-book, information asymmetry, firm age, and litigation on conditional conservatism. In this section, we report the results using firm fixed effects for the full, bank dependent, and non-bank-dependent samples. In Table 10, Panel B, we show that the coefficients on *R*DR*Boom2* are -0.070 for the full sample and -0.084 for the bank-dependent sample and both are statistically significant at the 1% level; the coefficient on *R*DR*Boom2* for the non-bank-dependent sample is -0.002 and is insignificant at convention levels of significance. In summary, the additional analysis suggests that the observed negative relation between credit

[12] Although non-discretionary conservatism reflects the application of mandatory impairment tests on assets, it is possible that firms still have discretion in determining the timing and amount of write-off. Therefore, the approach proposed in Lawrence et al. (2013) represents the most conservative estimation of the magnitude of discretionary conservatism.

boom and accounting conservatism is not due to the potential estimation bias of the Basu (1997) regression.[13]

4.8.5 Using non-operating accruals as the measure of accounting conservatism

The Basu (1997) asymmetric timeliness is a suitable measure of accounting conservatism in our setting where we examine the inter-temporal change in accounting conservatism over the credit cycle. Other measures of accounting conservatism such as cumulative non-operating accruals and skewness of earnings, which require time-series data to construct a firm-year measure of accounting conservatism (Givoly and Hayn 2000) may not be as appropriate as the Basu (1997) measure for capturing such inter-temporal changes in accounting conservatism. Furthermore, Ryan (2006) notes that accumulation of non-operating accruals or skewness of earnings may also not accurately capture the differential timeliness of loss and gain recognition. Despite these shortcomings, we examine the sensitivity of our findings to the use of non-operating accruals as an alternative measure of accounting conservatism.

We calculate non-operating accruals (*Non_Acc*) as (– net income + depreciation – cash flows from operations – change in accounts receivable – change in inventories + change in accounts payable + change in tax payable – change in prepaid expense) divided by average total assets. Because we have adjacent credit boom and non-credit boom periods, we cannot use cumulative non-operating accruals across several years (e.g., Beatty et al. 2008). Instead, we use non-operating accruals as the dependent variable in the following model and estimate the effect of the credit boom on the average amount of non-operating accruals across different periods:

$$Non\_Acc = \beta_0 + \beta_1 Boom2_{it} + \beta_2 Size_{it} + \beta_3 MB_{it} + \beta_4 Leverage + \beta_5 Age + \beta_6 Spread + \beta_7 Ret + \varepsilon_{it} \quad (5)$$

[13] Our results are also robust to controlling for cost stickiness (Banker, Basu, Byzalov, and Chen 2015)

where *Boom2*, *Size*, *MB*, *Leverage*, *Age*, *Spread*, and *Ret* are defined as in equation (2). Essentially, this model allows us to compare the average amount of non-operating accruals across different periods or across different types of firms (e.g., bank dependent vs. non-bank-dependent, high default risk vs. low default risk, and B rating vs. BB rating) in different periods. In addition to the control variables used in equation (2), we also include annual buy-and-hold returns as a proxy for firm economic performance because economic performance can affect the impairment of firm assets recognized through non-operating accruals. We also control for year and firm fixed effects in the model.

Table 11 reports the test results. Panel A reports the estimation results of the effect of the credit boom and bank-dependent firms on accounting conservatism. In column (1), the coefficient on *Boom2* is negative and statistically significant, indicating that the average amount of non-operating accruals is lower during the credit boom period. The negative coefficient on *Boom*Bank_D* in column (3) is also consistent with the results in Table 3 that bank dependent firms experience a greater reduction in accounting conservatism in credit boom periods compared to non-bank-dependent firms. However, in contrast to the results reported in Table 3, where we do not observe a decline in accounting conservatism for non-bank-dependent firms, we find that non-bank-dependent firms also experience a reduction in accounting conservatism (column 3, β_1 = -0.022, t-statistic = -3.910).

In Panel B, we estimate equation (5) after including measures of default risk (EDF or asset volatility) (columns (1) and (2)), TLB indicator (column (3)), B rating indicator (column (4)), and their interactions with the credit boom indicator. We find that firms with higher default risk and B rated firms experience a greater reduction in accounting conservatism as compared to low default risk and BB rated firms (columns (1), (2), (4)), consistent with the results presented

in Tables 4 and Table 7. Although the coefficient on *TLB*Boom2* is negative, it is not statistically significant at convention levels. Column (5) reports the estimation results with the inclusion of firm-years from 1994 – 1998. The observations from 1994 – 1998 are indicated as *Boom1*=1. We find that the coefficients on *Boom1* and *Boom2* are negative and statistically significant, consistent with the results reported in Table 8. However, while the coefficient on *Bank_D*Boom2* is negative and statistically significant at the 10% level, indicating a more pronounced effect of the second credit boom on accounting conservatism, the coefficient on *Bank_D*Boom1* is negative but not statistically significant, indicating no reliable incremental effect on accounting conservatism during the 1994 -1998 credit boom for bank-dependent firms when using non-operating accruals as the measure of accounting conservatism.

5. Discussion and concluding remarks

Using variations in credit cycle phases as an exogenous shock to lenders' monitoring incentives, we show that firms report less conservatively during a credit boom as compared to other periods. The reduced level of reporting conservatism is mainly concentrated in bank-dependent firms, likely because these firms are more sensitive to credit supply. We show that the decline in conservative reporting is not due to increased collateral value of firm assets and lowered default risk, but rather is mainly due to lenders' loosening of monitoring activities during a credit boom. We also document that accompanying the reduced reporting conservatism during the credit boom is a decrease in the use of both financial and non-financial covenants and the reduction in the use of financial and non-financial covenants is more pronounced in bank-dependent and high-default-risk firms. For non-bank-dependent firms, we document that the reduction in accounting conservatism is mainly concentrated in B rated firms.

Our study adds to the prior literature exploring the debt contracting explanations of accounting conservatism (e.g. Watts and Zimmerman, 1986; Ball et al, 2008; Beatty et al, 2008; Nikolaev, 2010) by showing that lowered monitoring incentives during a credit boom are associated with a reduction in reporting conservatism. We also show that the shock to lenders' incentives to monitor borrowers causes lenders to reduce the use of debt covenants as well as demand for conservatism, which adds additional insight to Nikolaev's (2010) findings.

One caveat remains in order. While we use a credit boom as a shock to lenders' incentives to demand conservatism, a credit boom could also be associated with equity holders' demand for conservative reporting to some extent. Although we conduct cross-sectional analyses and investigate changes in accounting conservatism in settings where lenders have lowered monitoring incentives, it is possible that equity holders' demand for conservative reporting also causes a decline in conservative reporting during a credit boom. We call on future research to further investigate changes in accounting conservatism in settings where equity holders could have a significant effect on accounting conservatism during a credit boom.

Appendix: Variable Definitions

Variables	Definitions
Age	Age of firm i at the end of year t - 1, measured as the number of years a firm is listed on CRSP.
Bank_D	An indicator variable that equals 1 if a firm-year has an S&P long-term credit rating, and 0 otherwise
B	An indicator variable that equals 1 if a firm has a B rating (B-, B, B+) in year t, and 0 if it has a BB rating (BB-, BB, BB+).
BB	An indicator variable that equals 1 if a firm has a BB (BB-, BB, or BB+) rating in year t, and 0 if it has a BBB rating (BBB-, BBB, or BBB+).
Bid-Ask Spread	Natural logarithm of bid-ask spread divided by the average of bid and ask price for firm i over year of t - 1
Boom1	An indicator variable that equals 1 if an observation is from years 1994 – 1998, and 0 otherwise
Boom2	An indicator variable that equals 1 if an observation is from years 2004 – 2007, and 0 otherwise
Covindex	Total number of debt covenants in a debt contract divided by the largest number of debt covenants in all debt contracts
Div Yield	Total dividends (dvt) divided by the end of year market value of equity (prcc_f*csho)
DR_{it}	An indicator variable that equals 1 if Rit is negative, and 0 otherwise
E_{it}	Earnings per share before extraordinary items for firm i in year t (epsfx)
Expected default frequency/Asset volatility	Following Drucker and Puri (2009), we define asset volatility and expected default frequency (EDF) based on KMV/Merton model. EDF=*N*(–DD), where DD is distance to default given by $\frac{V_A - D}{V_A * \sigma_A}$, and *N*() is cumulative normal distribution. D is the debt amount, equal to the sum of current liabilities and one-half of long-term debt; V_A (V_E) is the market value of assets (equity), and σ_A (σ_E) is the one-year asset (equity) volatility; *r* is the three-month Treasury-bill rate. Both V_A and σ_A are unobservable, and are estimated from the Merton (1974) model: $$V_E = V_A * N(d_1) - e^{-rT} * D * N(d_2)$$ $$\sigma_E = \frac{V_A}{V_E} * N(d_1) * \sigma_A$$ Where $d_1 = \frac{\ln\left(\frac{V_A}{D}\right) + \left(r + \frac{\sigma_A^2}{2}\right)T}{\sigma_A\sqrt{T}}$ $$d_2 = d_1 - \sigma_A\sqrt{T}$$ The model is estimated based on a one-year time horizon (*T* = 1).
Findex	The number of financial covenants in a debt contract divided by the largest number of financial covenants in all debt contracts
Lending_growth	Ranking of annual lending growth, where lending growth the the change in the loans to non-financial firms. Lending growth data is obtained from U.S. Flow of Funds Accounts.
Leverage	Borrower's book value of total debt divided by market value of equity ((dltt+dlc)/(prcc_f*csho)).

LIT	An indicator variable that equals 1 if the firm is from one of the following industries: Biotechnology (SIC codes 2833-2836 and 8731-8734), Computers (SIC codes 3570-3577 and 7370-7374), Electronics (SIC codes 3600-3674), and Retailing (SIC codes 5200-5961), and 0 otherwise.
Log(assets)	Natural logarithm of total assets at year t
Log(loan amount)	Natural logarithm of loan amount
Log(loan maturity)	Natural logarithm of loan maturity
Loss	An indicator variable equals 1 if net income (ni) is less than zero and 0 otherwise
MB	Borrower's market-to-book ratio, calculated as market value of equity divided by book value of equity (prcc_f*csho/ceq)
MVE	Market value of equity (prcc_f*csho)
P_{it-1}	Stock price for firm i at the end of year t – 1
R_{it}	Buy-and-hold returns for firm i over the 12-month period ending three months after the end of fiscal year t
Post_Boom2	An indicator variable that equals 1 if a firm has at least one outstanding loan from a TL by the end of the fiscal year t, and 0 otherwise
ROA	Income before extraordinary item divided by total assets (ib/at)
Secured	An indicator variable equals to one if a loan requires collateral and zero otherwise
Tangibility	Net property, plant, and equipment divided by total assets (ppent/at)
Tightening	Ranking of annual average net percentage of respondents tightening their lending standard for commercial and industrial loans to large and medium-sized firms. The data is obtained from http://www.federalreserve.gov/boarddocs/snloansurvey/
TL	An indicator variable equals 1 if at least one of the lead arrangers in a loan syndicate is a transactional lender. Transactional lender is defined as a lead lender with a proportion of traded loans over all syndicated loans it originates among the top 20 percentile in the year prior to the year of loan syndication.
TLB	An indicator variable that equals 1 if a firm has at least one outstanding loan from a TL by the end of the fiscal year t, and 0 otherwise
Zscore	Altman's Zscore = 1.2*wcap/at+1.4*re/at+3.3*ebit/at+0.6*(prcc_f*csho)/lt+sale/at

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Table 1 Descriptive Statistics

This table shows the descriptive statistics of sample firms in the non-boom (1999 - 2003, 2008- 2009) and boom (2004 - 2007) periods. Panels A, B, and C show the descriptive statistics for the full, bank-dependent, and non-bank dependent sample, respectively. Variable definitions are presented in the Appendix.

Panel A

	Non-Boom (1)				Boom (2)				(2) - (1)	
variable	N	mean	sd	p50	N	mean	sd	p50	t- stat	Rank Sum z-stat
EPS_t/P_{it-1}	23081	-0.03	0.20	0.03	12869	0.01	0.13	0.04	17.95	11.72
R_{it}	23081	0.17	0.75	0.01	12869	0.09	0.47	0.04	-9.80	4.12
MB_{it-1}	23081	3.39	4.89	1.89	12869	3.60	4.32	2.43	4.14	27.98
$Leverage_{it-1}$	23081	0.53	1.17	0.15	12869	0.31	0.77	0.10	-19.70	-18.53
$Size_{it-1}$	23081	5.73	2.10	5.66	12869	6.25	2.01	6.18	22.61	22.98
Bank_D	23081	0.74	0.44	1	12869	0.72	0.45	1	5.44	5.44
Age_{it-1}	23081	11.28	10.31	7	12869	12.63	10.52	9	11.85	17.42
$Spread_{it-1}$	23081	-0.53	0.87	-0.21	12869	-0.47	0.75	-0.20	6.12	-1.68
B Rating	23081	0.046	0.21	0	12869	0.050	0.22	0	1.68	1.69
BB Rating	23081	0.08	0.26	0	12869	0.09	0.29	0	4.92	4.92
BBB Rating	23081	0.07	0.26	0	12869	0.08	0.27	0	2.36	2.36
A- and above	23081	0.06	0.23	0	12869	0.06	0.23	0	0.64	0.64
Ret_Vol	23081	0.18	0.10	0.16	12869	0.11	0.07	0.10	-65.93	-66.34
TLB	4732	0.39	0.49	0	4551	0.46	0.50	0	17.04	7.39
EDF	19130	0.12	0.21	0.01	10187	0.04	0.14	0.00	-35.13	-69.28
AssetVol	19130	0.60	0.32	0.52	10187	0.40	0.22	0.35	-56.62	-57.61
Net Debt Issue	21418	0.005	0.10	0	12177	0.012	0.10	0	7.41	7.71

Panel B: Bank-dependent firms

	Non-Boom (1)				Boom (2)				(2) - (1)	
Variable	N	mean	sd	p50	N	mean	sd	p50	t- stat	Rank Sum z-stat
EPS_t/P_{it-1}	17192	-0.04	0.20	0.02	9246	-0.01	0.13	0.03	13.75	6.76
R_{it}	17192	0.16	0.77	-0.01	9246	0.07	0.50	0.00	-10.03	1.56
MB_{it-1}	17192	3.37	4.93	1.83	9246	3.64	4.31	2.43	4.46	25.45
$Leverage_{it-1}$	17192	0.41	1.02	0.06	9246	0.22	0.69	0.03	-15.79	-17.33
$Size_{it-1}$	17192	5.07	1.77	5.04	9246	5.53	1.67	5.54	20.24	20.76
Age_{it-1}	17192	9.91	9.19	7	9246	11.27	9.37	9	11.45	16.53
$Spread_{it-1}$	17192	-0.63	0.96	-0.28	9246	-0.58	0.85	-0.28	4.13	-1.47
Ret_Vol	17192	0.19	0.10	0.17	9246	0.13	0.07	0.11	-53.74	-58.14
TLB	2369	0.20	0.40	0	2249	0.25	0.43	0	3.67	3.67
EDF	13392	0.12	0.21	0.01	6675	0.03	0.13	0.00	-30.88	-54.32
AssetVol	13392	0.68	0.33	0.62	6675	0.47	0.22	0.42	-47.88	-47.66
Net Debt Issue	16003	0.002	0.10	0	8780	0.010	0.10	0	5.95	9.42

Panel C: Non-bank dependent firms

	Non-Boom (1)				Boom (2)				(2) - (1)	
variable	N	mean	sd	p50	N	mean	sd	p50	t- stat	Rank Sum z-stat
EPSt/Pit-1	588	0.01	0.17	0.04	362	0.04	0.10	0.05	11.52	11.49
Rit	588	0.17	0.67	0.06	362	0.15	0.38	0.11	-2.24	5.19
MBit-1	588	3.45	4.80	2.07	362	3.51	4.32	2.42	0.61	11.46
Leverageit-1	588	0.90	1.46	0.43	362	0.52	0.90	0.29	13.77	-15.13
Sizeit-1	588	7.66	1.79	7.62	362	8.08	1.58	8.00	11.86	11.22
Ageit-1	588	15.2	12.1		362	16.1	12.3			
	9	8	9	11	3	0	6	11	3.18	5.41
Spreadit-1	588	-			362			-		
	9	0.22	0.41	-0.10	3	-0.19	0.24	0.112	4.61	-6.54
B Rating	588	0.18	0.38	0	362	0.18	0.38	0	0.36	0.36
	9				3					
BB Rating	588	0.30	0.46	0	362	0.32	0.47	0	2.53	2.53
	9				3					
BBB- Rating	588	0.29	0.45	0	362	0.29	0.45	0	-0.29	-0.29
	9				3					
A- and above	588	0.22	0.41	0	362	0.20	0.40	0	-1.69	-1.69
	9				3					
Ret_Vol	588	0.14	0.08	0.12	362	0.08	0.04	0.074	-43.25	-47.01
TLB	236	0.58	0.49	1	230	0.68	0.47	1	7.18	7.14
	3				2					
EDF	573	0.12	0.21	0.01	351	0.05	0.15	0.00	-18.11	-43.33
	8				2					
AssetVol	573	0.42	0.21	0.37	351	0.28	0.13	0.26	-35.42	-41.22
	8				2					
Net Debt Issue	541	0.01	0.10	0.00	339	0.02	0.10	0.00	2.14	0.42
	5				6					

Table 2: Relation between credit boom and accounting conservatism

This table reports the results of equation (2) using pooled OLS estimation over 1999- 2009. Standalone control variables and two-way interactions between controls and DR and R are included in the estimation but are not reported for brevity. Column (1) reports results for firm-year observations from 1999 to 2009; Column (2) reports results for the differential effects of the pre-boom years, 1999 – 2003, and the post-boom years, 2008 – 2009. Variable definitions are in the Appendix. The t-statistics reported in brackets are based on robust standard errors clustered at the firm level. The superscripts ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Variable	(1)	(2)
DR	0.015	0.015
	[1.406]	[1.355]
R	0.031***	0.029***
	[2.898]	[2.745]
R*DR	0.318***	0.322***
	[11.483]	[11.569]
Boom2	0.007*	0.008*
	[1.691]	[1.825]
DR*Boom2	0.001	-0.001
	[0.223]	[-0.187]
R*Boom2	0.022***	0.019***
	[3.976]	[3.418]
R*DR*Boom2	**-0.061*** **	**-0.067*** **
	[-4.497]	**[-4.598]**
Post_Boom2		-0.013**
		[-2.002]
Post_Boom2*DR		-0.003
		[-0.332]
Post_Boom2*R		-0.010
		[-1.165]
Post_Boom2*DR*R		**-0.019**
		[-1.010]
Controls:		
DR*Control	Included	Included
R*Control	Included	Included
MB*R*DR	-0.007***	-0.007***
	[-7.508]	[-7.612]
Leverage*R*DR	0.056***	0.055***
	[4.668]	[4.567]
Size*R*DR	-0.016***	-0.016***
	[-4.064]	[-3.924]
Spread*R*DR	0.019*	0.019*
	[1.843]	[1.813]
Age*R*DR	-0.001	-0.001

	[-0.957]	[-0.820]
LIT*R*DR	-0.003	-0.005
	[-0.219]	[-0.352]
Constant	0.050**	0.050**
	[2.377]	[2.384]
Year and industry fixed effects	Yes	Yes
Observations	35,950	35,950
Adjusted R-square	0.305	0.305

Table 3: Relation between credit boom and accounting conservatism: Effect of dependence on bank financing

This table reports the results of equation (2) using pooled OLS estimation over 1999- 2009 for bank-dependent firms (column (1)) and non-bank-dependent firms (column (2)). Bank-dependent firms are firms with no access to the public debt market, operationalized as firms with no credit rating, and non-bank-dependent firms are firms with credit rating. Standalone control variables and two-way interactions between controls and DR and R are included in the estimation but are not reported for brevity. Variable definitions are in the Appendix. The t-statistics reported in brackets are based on robust standard errors clustered at the firm level. The superscripts ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Variable	(1) Bank-dependent Firms	(2) Non-bank-dependent Firms
DR	0.014	0.018
	[0.959]	[0.581]
R	0.031**	-0.016
	[2.399]	[-0.492]
R*DR	0.337***	0.434***
	[9.603]	[4.828]
Boom2	0.010*	0.010
	[1.929]	[1.431]
DR*Boom2	-0.003	0.005
	[-0.589]	[0.556]
R*Boom2	0.019***	0.012
	[3.178]	[0.999]
R*DR*Boom2	**-0.066*** **	**-0.019**
	[-4.445]	**[-0.537]**
Controls:		
DR*Control	Included	Included
R*Control	Included	Included
MB*R*DR	-0.005***	-0.011***
	[-4.830]	[-5.323]
Leverage*R*DR	0.066***	0.014
	[4.216]	[0.669]
Size*R*DR	-0.021***	-0.031***
	[-3.887]	[-2.969]
Spread*R*DR	0.019*	0.036
	[1.701]	[0.767]
Age*R*DR	-0.001	-0.000
	[-1.307]	[-0.021]
LIT*R*DR	-0.005	0.048
	[-0.333]	[1.617]
Constant	0.019	0.163***
	[0.782]	[3.882]
Year and industry fixed effects	Yes	Yes
Observations	26,438	9,512
Adjusted R-square	0.299	0.326

Table 4: Credit boom, asymmetric timeliness, and default risk

This table reports the results of estimating equation (2) using pooled OLS regressions over 1999 – 2009 for firms with high and low default risk. Columns (1) and (2) report the results using EDF as the measure of default risk and columns (3) and (4) report the results using asset volatility as the measure of default risk. Standalone control variables and their interactions with DR and R are included in the estimation but are not reported for brevity. Variable definitions are in the Appendix. The t-statistics reported in brackets are based on robust standard errors clustered at the firm level. The superscripts ***, **, * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)	(4)
VARIABLES	EDF: High	EDF: Low	Asset Vol: High	Asset Vol: Low
DR	-0.003	0.012	0.003	0.024
	[-0.157]	[1.021]	[0.171]	[1.519]
R	0.053***	0.002	0.033**	0.080***
	[3.086]	[0.137]	[2.216]	[4.244]
R*DR	0.274***	0.260***	0.258***	0.237***
	[6.293]	[7.073]	[6.238]	[4.806]
Boom2	0.010	0.006	0.021***	-0.002
	[1.145]	[1.549]	[2.671]	[-0.421]
DR*Boom2	0.002	0.003	0.003	0.005
	[0.156]	[0.745]	[0.318]	[0.793]
R*Boom2	0.021**	0.015**	0.026***	0.014
	[2.301]	[2.173]	[3.216]	[1.535]
R*DR*Boom2	**-0.066*** **	**-0.023**	**-0.052** **	**-0.012**
	[-2.861]	**[-1.460]**	**[-2.472]**	**[-0.467]**
Control and their interactions, and constant	included	included	included	included
Industry and year fixed effects	Yes	Yes	Yes	Yes
Observations	14,659	14,658	14,658	14,659
Adjusted R-square	0.281	0.250	0.262	0.327

Table 5: Use of debt covenants in debt contracts during boom and non-boom years

This table reports the results of analyzing the use of covenants in debt contracts during the boom and non-boom periods from 1999- 2009. The dependent variable is a measure of the intensity of financial covenants (*Findex*) or a measure of the intensity of total covenants (both financial and non-financial) (*Covindex*). *Findex (Covindex)* is calculated as the total number of financial covenants (the total number of all covenants) divided by the largest number of financial covenants (of all covenants) observed for all contracts. Panel A reports the results for the full, bank-dependent, and non-bank dependent samples. Panel B reports the results for the high and low default risk samples using EDF or asset volatility as the measure of default risk. Variable definitions are in the Appendix. The t-statistics reported in brackets are based on robust standard errors clustered at the firm level. The superscripts ***, **, * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

Panel A: Full, bank dependent, and non-bank-dependent samples

	(1)	(2)	(3)	(4)	(5)	(6)
	Financial Covenants			All Covenants		
VARIABLES	Full sample	Bank-dependent	Non-bank-dependent	Full sample	Bank-dependent	Non-bank-dependent
Boom2	**-0.081*** **	**-0.088*** **	**-0.023*** **	**-0.079*** **	**-0.086*** **	**-0.023*** **
	[-10.337]	**[-8.211]**	**[-4.600]**	**[-11.955]**	**[-9.918]**	**[-5.223]**
Log(assets)	-0.011***	-0.001	-0.028***	-0.009***	-0.000	-0.026***
	[-4.544]	[-0.196]	[-8.593]	[-4.555]	[-0.086]	[-9.309]
MB	-0.004***	-0.004**	0.002	-0.003**	-0.003**	0.002
	[-2.599]	[-2.288]	[0.605]	[-2.370]	[-2.095]	[0.606]
Leverage	0.063***	0.072***	0.025	0.063***	0.077***	0.021
	[5.188]	[4.410]	[1.378]	[6.213]	[5.664]	[1.417]
ROA	0.054***	0.055***	0.000	0.041***	0.038***	0.013
	[4.936]	[4.622]	[0.011]	[4.953]	[4.199]	[0.756]
Loss	-0.025***	-0.037***	-0.003	-0.016***	-0.022***	-0.000
	[-5.079]	[-5.716]	[-0.402]	[-3.895]	[-4.246]	[-0.055]
Tangibility	-0.008	0.007	-0.025*	-0.019**	-0.011	-0.028**
	[-0.758]	[0.536]	[-1.784]	[-2.295]	[-1.036]	[-2.370]
Div Yield	-0.000	0.003*	-0.001	0.000	0.004**	-0.001
	[-0.028]	[1.792]	[-0.922]	[0.215]	[2.338]	[-0.843]
Zscore	0.003***	0.003***	-0.002	0.002***	0.002***	-0.001
	[3.666]	[3.217]	[-0.809]	[3.141]	[2.818]	[-0.806]
Bank_D	0.012			-0.000		
	[0.411]			[-0.012]		
Log(loan amount)	0.013***	0.006**	0.014***	0.016***	0.012***	0.015***
	[6.244]	[2.064]	[5.262]	[9.551]	[5.123]	[6.382]
Log(maturity)	0.030***	0.031***	0.026***	0.027***	0.031***	0.019***
	[12.027]	[8.259]	[8.399]	[12.447]	[9.829]	[7.050]
Secured	0.131***	0.124***	0.148***	0.138***	0.132***	0.157***
	[27.574]	[21.198]	[19.746]	[34.400]	[27.109]	[23.433]
Constant	-0.100**	-0.007	-0.042	0.043	0.079	0.154***
	[-1.984]	[-0.121]	[-0.657]	[0.934]	[1.443]	[2.659]
Year and industry fixed	Yes	Yes	Yes	Yes	Yes	Yes
Rating fixed effects	Yes	No	Yes	Yes	No	Yes
Observations	10,745	5,752	4,993	10,745	5,752	4,993
Adjusted R-square	0.253	0.162	0.343	0.324	0.227	0.419

Panel B: High and low default risk samples

	(1)	(2)	(3)	(4)
	Financial Covenants		All Covenants	
VARIABLES	High EDF	Low EDF	High EDF	Low EDF
Boom2	**-0.099*** **	**-0.048*** **	**-0.098*** **	**-0.049*** **
	[-9.146]	**[-4.350]**	**[-10.726]**	**[-5.122]**
Log(assets)	-0.004	-0.027***	-0.002	-0.024***
	[-1.234]	[-8.477]	[-0.897]	[-8.753]
MB	-0.001	-0.004**	-0.001	-0.003*
	[-0.826]	[-2.012]	[-0.558]	[-1.662]
Leverage	0.063***	0.052**	0.063***	0.054***
	[4.751]	[2.458]	[5.733]	[2.929]
ROA	0.055***	0.121***	0.042***	0.084***
	[4.787]	[5.036]	[4.910]	[4.277]
Loss	-0.026***	-0.011	-0.017***	-0.009
	[-4.490]	[-1.142]	[-3.529]	[-1.141]
Tangibility	-0.013	-0.019	-0.021*	-0.032***
	[-1.004]	[-1.424]	[-1.951]	[-2.792]
Div Yield	0.000***	-0.005	0.000***	0.017
	[7.410]	[-0.031]	[8.852]	[0.139]
Zscore	0.001***	0.000	0.000***	-0.000
	[3.133]	[0.081]	[2.789]	[-0.190]
Bank_D	0.012	-0.040**	0.001	-0.058***
	[0.391]	[-2.324]	[0.038]	[-3.629]
Log(loan amount)	0.007***	0.020***	0.011***	0.023***
	[2.775]	[7.359]	[5.071]	[9.833]
Log(maturity)	0.032***	0.026***	0.031***	0.022***
	[9.245]	[7.659]	[10.455]	[7.448]
Secured	0.148***	0.104***	0.156***	0.112***
	[25.528]	[14.640]	[31.287]	[18.975]
Constant	-0.067	-0.063	0.071	0.087*
	[-1.009]	[-1.252]	[1.202]	[1.926]
Year and industry fixed effects	Yes	Yes	Yes	Yes
Credit rating fixed effects	Yes	Yes	Yes	Yes
Observations	6,146	4,585	6,146	4,585
Adjusted R-square	0.204	0.344	0.275	0.401

Table 6: Relation between credit boom and accounting conservatism: Effect of lender type

This table reports the results of equation (2) using pooled OLS estimation over 1999- 2009 for firms borrowing from TLs (TLB) and Non-TLs (Non-TLB). Columns (1) and (2) report the results for the full sample, columns (3) and (4) report the results for the bank-dependent sample, and columns (5) and (6) report the results for the non-bank-dependent sample. Standalone control variables and their interactions with DR and R are included in the estimation but are not reported for brevity. Variable definitions are in the Appendix. The t-statistics reported in brackets are based on robust standard errors clustered at the firm level. The superscripts ***, **, * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.

	Full Sample		Bank-dependent Firms		Non-bank-dependent Firms	
	(1)	(2)	(3)	(4)	(5)	(6)
Variable	TLB	Non-TLB	TLB	Non-TLB	TLB	Non-TLB
DR	-0.031	0.023	-0.008	0.016	-0.028	0.040
	[-0.749]	[0.717]	[-0.092]	[0.364]	[-0.522]	[0.510]
R	-0.102**	0.069**	-0.074	0.110***	-0.170**	0.006
	[-2.070]	[2.027]	[-0.813]	[2.829]	[-2.581]	[0.065]
R*DR	0.454***	0.290***	0.806***	0.236**	0.491***	0.450*
	[3.575]	[3.620]	[2.977]	[2.167]	[3.078]	[1.956]
Boom2	0.001	0.004	-0.030**	0.006	0.011	0.003
	[0.080]	[0.708]	[-2.126]	[0.934]	[1.453]	[0.276]
DR*Boom2	-0.004	0.002	0.007	0.001	-0.005	-0.001
	[-0.297]	[0.184]	[0.267]	[0.073]	[-0.367]	[-0.066]
R*Boom2	0.030*	0.033***	0.062**	0.037***	0.017	0.023
	[1.908]	[2.674]	[2.214]	[2.721]	[0.906]	[0.779]
R*DR*Boom2	**-0.041**	**-0.015**	**-0.163****	**-0.021**	**0.005**	**-0.012**
	[-0.979]	**[-0.392]**	**[-2.516]**	**[-0.528]**	**[0.105]**	**[-0.134]**
Controls and their interactions, and constant	included	included	included	included	included	included
Year and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,959	5,324	1,041	3,577	2,918	1,747
Adjusted R-square	0.336	0.347	0.401	0.353	0.337	0.368

Table 7: Relation between credit boom and accounting conservatism for non-bank-dependent firms: Effect of credit rating

This table reports the results of estimating equation (3) using pooled OLS regressions over 1999- 2009 for firms with B, BB, and BBB ratings. Columns (1) and (2) report the results for firms with B and BB ratings. *B* is an indicator variable that equals 1 for firms with a rating of B-, B, or B+, and 0 for firms with a rating of BB-, BB, or BB+. Columns (3) and (4) report the results for firms with BB and BBB ratings. *BB* is an indicator variable that equals 1 for firms with a rating of BB-, BB, or BB+, and 0 for firms with a rating of BBB-, BBB, or BBB+. Standalone control variables and their interactions with DR and R are included in the estimation but are not reported for brevity. Variable definitions are in the Appendix A. The t-statistics reported in brackets are based on robust standard errors clustered at the firm level. The superscripts ***, **, * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.

VARIABLES	B rating vs. BB rating (1)	B rating vs. BB rating (2)	BB vs. BBB rating (3)	BB vs. BBB rating (4)
DR	-0.004	0.106	0.001	-0.007
	[-0.346]	[1.616]	[0.124]	[-0.151]
R	0.023**	0.093	0.029***	0.078
	[2.148]	[1.543]	[3.419]	[1.419]
R*DR	0.091***	0.156	0.055***	-0.007
	[3.221]	[0.996]	[2.651]	[-0.053]
B	-0.026	-0.012		
	[-1.267]	[-0.573]		
B*DR	0.016	0.000		
	[0.442]	[0.003]		
B*R	-0.036	-0.037*		
	[-1.643]	[-1.660]		
B*R*DR	0.251***	0.173***		
	[3.527]	[2.882]		
B*Boom2	-0.003	0.015		
	[-0.117]	[0.620]		
B*DR*Boom2	-0.043	-0.053		
	[-1.027]	[-1.413]		
B*R*Boom2	0.007	-0.020		
	[0.155]	[-0.489]		
B*R*DR*Boom2	**-0.288*** **	**-0.261** **		
	[-2.653]	**[-2.567]**		
BB			-0.011	-0.006
			[-1.133]	[-0.632]
BB*DR			0.025*	0.008
			[1.725]	[0.608]
BB*R			-0.020	-0.029*
			[-1.370]	[-1.817]
BB*R*DR			0.123***	0.078**
			[3.417]	[2.224]
BB*Boom2			-0.003	-0.007
			[-0.261]	[-0.724]
BB*DR*Boom2			0.014	0.018
			[0.683]	[0.987]
BB*R*Boom2			0.034*	0.033*
			[1.857]	[1.888]
BB*R*DR*Boom2			**0.033**	**0.042**
			[0.337]	**[0.465]**

Boom2	-0.004	0.011	0.009	0.019**
	[-0.277]	[0.758]	[1.152]	[2.266]
DR*Boom2	0.036**	0.027*	-0.006	-0.004
	[2.264]	[1.679]	[-0.475]	[-0.382]
R*Boom2	0.019	0.014	-0.002	0.005
	[1.334]	[0.902]	[-0.134]	[0.436]
R*DR*Boom2	0.155***	0.126**	0.023	-0.002
	[2.601]	[2.149]	[0.293]	[-0.028]
Controls and their interactions	no	included	no	included
Industry and year fixed effects	Yes	Yes	Yes	Yes
Observations	3,361	3,361	4,459	4,459
Adjusted R-square	0.168	0.284	0.112	0.209

Table 8: Credit boom and accounting conservatism: including firm-year observations in 1994 - 2009
This table reports the results of estimating equation (4) using pooled OLS regressions over 1994- 2009. Column (1) reports the results for the full sample; Columns (2) and (3) report the results for the bank dependent and non-bank dependent samples, respectively. *Boom1* equals 1 if the firm-year observation is from the years 1994 - 1998, and 0 otherwise. Boom2 equals 1 if the firm-year observations are from the years 2004 - 2007, and 0 otherwise. Standalone control variables and their interactions with DR and R are included in the estimation but are not reported for brevity. Variable definitions are in the Appendix. The t-statistics reported in brackets are based on robust standard errors clustered at the firm level. The superscripts ***, **, * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.

VARIABLES	(1) Full sample	(2) Bank dependent	(3) Non-bank Dependent
DR	0.011	0.005	0.018
	[1.272]	[0.483]	[0.708]
R	0.031***	0.033***	-0.006
	[3.589]	[3.191]	[-0.235]
R*DR	0.338***	0.351***	0.396***
	[14.942]	[13.040]	[5.289]
Boom1	0.013***	0.015***	-0.008
	[2.790]	[2.775]	[-1.008]
DR*Boom1	-0.003	-0.005	0.001
	[-0.690]	[-0.857]	[0.166]
R*Boom1	0.010**	0.009*	0.005
	[2.417]	[1.921]	[0.490]
R*DR*Boom1	**-0.065*** **	**-0.067*** **	**-0.038**
	[-5.805]	**[-5.436]**	**[-1.416]**
Boom2	0.023***	0.026***	0.012
	[5.241]	[4.868]	[1.600]
DR*Boom2	0.001	-0.004	0.007
	[0.124]	[-0.748]	[0.930]
R*Boom2	0.025***	0.024***	0.016
	[4.732]	[4.083]	[1.469]
R*DR*Boom2	**-0.064*** **	**-0.071*** **	**-0.022**
	[-4.976]	**[-4.978]**	**[-0.690]**
Control and their interactions, and constant	included	included	included
Industry and year fixed effects	Yes	Yes	Yes
Observations	60,764	46,508	14,256
Adjusted R-square	0.283	0.276	0.304

Table 9: Relation between credit boom and accounting conservatism: Using a constant sample and alternative measures of credit cycles

This table reports the robustness test results using a constant sample and two continuous measures of credit cycles. Panel A reports the results of estimating equation (2) using a constant sample in which each firm has data available in both the boom and non-boom periods. Columns (1) - (3) report the results for the constant full, bank-dependent, and non-bank-dependent samples, respectively. Panel B reports the estimation results using two alternative measures of credit cycles, *Tightening* and *Lending_growth*. *Tightening* is the percentage of bankers tightening lending standard based on the Senior Loan Officer's Opinion survey and *Lending_growth* is the annual growth of the loans to nonfinancial firms based on U.S. Flow of Funds Accounts. We mean-center the *Tightening* and *Lending_growth* variables used in the regressions. Standalone control variables and the two-way interactions between controls and DR and R are included in the estimation but are not reported for brevity. Variable definition can be found in the Appendix A. The robust standard errors reported in parentheses are clustered at firm level. The superscripts ***, **, * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.

Panel A: Using a constant sample

VARIABLES	(1)	(2)	(3)
	Full Sample	Bank-dependent Firms	Non-bank-dependent Firms
DR	-0.003	-0.017	0.048
	[-0.259]	[-1.091]	[1.500]
R	0.045***	0.049***	0.015
	[4.045]	[3.580]	[0.439]
R*DR	0.211***	0.205***	0.345***
	[6.989]	[5.235]	[3.325]
Boom2	-0.003	-0.004	0.012*
	[-0.776]	[-0.815]	[1.742]
DR*Boom2	0.004	0.002	-0.003
	[0.861]	[0.338]	[-0.319]
R*Boom2	0.021***	0.019***	0.010
	[3.795]	[3.045]	[0.817]
R*DR*Boom2	**-0.030****	**-0.038****	**-0.001**
	[-2.147]	**[-2.455]**	**[-0.032]**
Control and their interactions, and constant	included	included	included
Industry and year fixed effects	Yes	Yes	Yes
Observations	30,962	21,715	8,520
Adjusted R-square	0.276	0.273	0.275

Panel B: Using continuous measures of credit cycles

VARIABLES	(1) Full Sample	(2) Bank Dependent	(3) Non-Bank Dependent	(4) Full Sample	(5) Bank Dependent	(6) Non-Bank Dependent
DR	0.015	0.013	0.021	0.014	0.012	0.014
	[1.431]	[0.882]	[0.686]	[1.242]	[0.813]	[0.446]
R	0.033***	0.032**	-0.015	0.032***	0.032**	-0.017
	[3.161]	[2.521]	[-0.463]	[3.028]	[2.469]	[-0.518]
R*DR	0.306***	0.323***	0.437***	0.312***	0.330***	0.417***
	[11.112]	[9.194]	[4.908]	[11.304]	[9.405]	[4.691]
Tightening	-0.024**	-0.032**	0.002			
	[-2.198]	[-2.415]	[0.133]			
Tightening_DR	-0.020**	-0.008	-0.046***			
	[-1.979]	[-0.620]	[-2.656]			
Tightening_R	-0.012	-0.005	-0.010			
	[-1.047]	[-0.366]	[-0.425]			
Tightening_R_DR	**0.057***	**0.084****	**-0.136****			
	[1.960]	**[2.529]**	**[-2.237]**			
Lending_growth				0.062***	0.068***	0.012
				[4.041]	[3.656]	[0.460]
Lending_growth*DR				0.000	-0.002	0.005*
				[0.081]	[-0.816]	[1.716]
Lending_growth*R				0.001	0.001	-0.005
				[0.475]	[0.554]	[-1.017]
Lending_growth*R*DR				**-0.015*****	**-0.023*****	**0.029****
				[-2.995]	**[-4.058]**	**[2.486]**
Control and their interactions, and constant	included	included	included	included	included	included
Industry and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	35,950	26,438	9,512	35,950	26,438	9,512
Adjusted R-square	0.305	0.299	0.326	0.305	0.299	0.326

Table 10: Relation between credit boom and accounting conservatism: Controlling for non-discretionary accounting conservatism and firm fixed effects

This table reports the results of Equation (2) with controls for discretionary accounting conservatism (Lawrence et al. 2013) (Panel A) and firm fixed effects (Panel B) for the full, bank-dependent, and non-bank-dependent samples over 1999- 2009. Standalone control variables and the two-way interactions between controls and DR and R are included in the estimation but are not reported for brevity. Discretionary conservatism is captured by weak performance and the proportion of intangible assets and their interactions with R, DR, and low book-to-market value. Column (1) reports the results for the full sample, Column (2) reports the results for the bank-dependent sample, and Column (3) reports the results for the non-bank-dependent sample. Variable definition can be found in the Appendix A. The t-statistics reported in brackets are based on robust standard errors clustered at the firm level. The superscripts ***, **, * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.

Variable	(1) Full Sample	(2) Bank-dependent Firms	(3) Non-bank-dependent Firms
DR	0.022**	0.012	-0.002
	[1.974]	[0.825]	[-0.063]
R	0.063***	0.061***	0.026
	[5.794]	[4.538]	[0.763]
R*DR	0.246***	0.252***	0.320***
	[8.326]	[6.745]	[3.311]
Boom2	0.010**	0.012**	0.016**
	[2.323]	[2.370]	[2.273]
DR*Boom2	-0.003	-0.004	-0.002
	[-0.597]	[-0.738]	[-0.202]
R*Boom2	0.014**	0.013**	-0.002
	[2.463]	[2.086]	[-0.122]
R*DR*Boom2	**-0.048*** **	**-0.052*** **	**-0.003**
	[-3.246]	**[-3.176]**	**[-0.076]**
Controls and their interactions, and constant	included	included	included
Controls for non-discretionary conservatism	Yes	Yes	Yes
Industry and year fixed effects	Yes	Yes	Yes
Observations	32,219	23,186	9,033
Adjusted R-square	0.335	0.342	0.363

Panel B: Firm fixed effects

VARIABLES	Full Sample	Bank-dependent Firms	Non-bank-dependent Firms
DR	-0.006	-0.019	0.038
	[-0.538]	[-1.246]	[1.058]
R	0.050***	0.056***	0.006
	[4.394]	[4.187]	[0.163]
R*DR	0.145***	0.127***	0.350***
	[4.455]	[3.118]	[3.024]
Boom2	0.005	-0.000	0.008
	[1.254]	[-0.058]	[0.941]
DR*Boom2	0.005	0.003	-0.000
	[0.988]	[0.557]	[-0.001]
R*Boom2	0.020***	0.023***	0.004
	[3.715]	[3.725]	[0.276]
R*DR*Boom2	**-0.070*** **	**-0.084*** **	**-0.002**
	[-4.427]	**[-4.822]**	**[-0.036]**
Control and their interactions, and constant	included	included	included
Firm and year fixed effects	yes	yes	yes
Observations	35,950	26,438	9,512
Adjusted R-square	0.568	0.589	0.535

Table 11 Results using non-operating accruals as a measure of accounting conservatism
This table reports the results of estimating the effect of credit boom on accounting conservatism using non-operating accruals as a measure of accounting conservatism. Panel A reports the results of credit boom on all firm and the differential effects of bank-dependent firms. Panel B reports the results estimating the effects of default risk, TLB, and B ratings on accounting conservatism during the boom period as well as the results for the expanded sample period. Variable definitions can be found in the Appendix A. The robust standard errors reported in parentheses are clustered at firm level. The superscripts ***, **, * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.

Panel A: Accounting conservatism and credit boom

VARIABLES	(1)	(2)	(3)
Boom2	-0.028***	-0.027***	-0.022***
	[-4.961]	[-4.928]	[-3.910]
Bank_D		-0.033***	-0.030***
		[-4.924]	[-4.332]
Boom*Bank_D			-0.008*
			[-1.901]
Size	-0.034***	-0.035***	-0.035***
	[-8.533]	[-8.678]	[-8.695]
MB	0.004***	0.004***	0.004***
	[4.092]	[4.114]	[4.119]
Leverage	0.009***	0.008***	0.008***
	[4.820]	[4.647]	[4.729]
Age	-0.062***	-0.062***	-0.062***
	[-6.682]	[-6.720]	[-6.713]
Spread	-0.002	-0.007	-0.020
	[-0.018]	[-0.051]	[-0.155]
Ret	-0.035***	-0.036***	-0.036***
	[-10.999]	[-11.041]	[-11.069]
Constant	0.354***	0.383***	0.381***
	[9.390]	[9.877]	[9.870]
Control variables	Yes	Yes	Yes
Firm and year fixed effects	Yes	Yes	Yes
Observations	35,808	35,808	35,808
Adjusted R-square	0.644	0.644	0.644

Panel B: Credit boom and accounting conservatism

VARIABLES	(1) EDF	(2) Asst_Vol	(3) TLB	(4) B and BB Ratings	(5) Sample: 1994 - 2009
EDF*Boom2	-0.028**				
	[-2.334]				
Asst_Vol*Boom2		-0.041***			
		[-3.345]			
TLB*Boom2			-0.008		
			[-1.549]		
B*Boom2				-0.021**	
				[-2.349]	
Boom1					-0.035***
					[-6.251]
Boom2					-0.015***
					[-4.125]
Bank_D*Boom1					-0.000
					[-0.061]
Bank_D*Boom2					-0.005*
					[-1.720]
Control variables	Yes	Yes	Yes	Yes	Yes
Firm and year fixed effect	Yes	Yes	Yes	Yes	Yes
Observations	29,153	29,153	9,284	3,361	60,545
Adjusted R-square	0.696	0.697	0.567	0.490	0.645