Affiliated Banker on Board and Conservative Accounting

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ABSTRACT

We examine the effect of lending banks' board representation (affiliated banker on board, or AFB) on conservative accounting. We argue that private information obtained through board representation enhances the monitoring and the influence of lenders and therefore reduces their demand for conservatism-facilitated debt contracting. Consistent with our hypothesis, we find that conservatism is markedly lower for AFB firms, even after controlling for a variety of confounding effects. In addition we find: (1) greater reduction in conservatism for AFB than for relationship banking, highlighting the uniqueness of board representation; (2) no reduction in conservatism when unaffiliated bankers are on board, suggesting the importance of affiliation with lender; and (3) lower use of covenants and lower sensitivity between conservatism and covenant intensity for AFB firms, suggesting that AFB substitutes for the conventional monitoring through conservatism-facilitated debt contracting.

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Data Availability: All data are publicly available from sources identified in the text.

I. INTRODUCTION

The extant literature posits that conservative accounting complements debt contracting in reducing the agency cost of debt (Watts and Zimmerman 1986; Watts 2003a, 2003b), and evidence supports this hypothesis (Ahmed et al. 2002; Zhang 2008). While both theory and evidence suggests that conservatism-facilitated debt contracting is an efficient mechanism for mitigating debtholder-shareholder conflicts, there could be other mechanisms—such as corporate governance structures—employed for this purpose. One particularly relevant governance structure is lender participation in management through board representation, i.e., having an affiliated banker on board (henceforth, AFB).[1] Board representation mitigates debtholder-shareholder conflicts by providing lenders with better monitoring and greater influence, thereby allowing them to protect their interests.

The purpose of our paper is to examine whether firms with AFB have less conservative accounting. Private information obtained from board representation allows affiliated lenders to better monitor the borrower. Affiliated lenders can use their informational advantage to renegotiate loan terms in a timely manner to protect their interests, even in the absence of covenant violations.[2] Board representation also confers affiliated lenders some ability to influence firm policies, either directly through the authority derived from board membership or indirectly through the *quasi* monopoly enjoyed by these lenders because of the adverse selection problem created through their informational advantage (Sharpe 1990; Rajan 1992). The affiliated lenders

[1] We use the terms *affiliated (unaffiliated) banker on board* to describe a board member who is a top executive of a commercial bank that belongs to a syndicate that has (does not have) *a concurrent lending relationship* with the firm. Analogously, we also use the terms *affiliated bank* and *affiliated lender* to refer to the members of the AFBs' syndicate. However, *unaffiliated lender* refers to a lender that does not have a concurrent board tie with the firm. We also refer to the firm that has an AFB as the *AFB firm*. Finally, we use syndicate membership as the basis for affiliation because under the principle of "collective action" the rights and responsibilities of syndicate members are inexorably tied together (Taylor and Sansone 2007).

[2] Roberts and Sufi (2009b) show that over 90% of loans are renegotiated before their maturity and over 80% of these renegotiations occur in the absence of any covenant violations.

can use their influence to coerce firms into adopting firm policies that protect their interests.[3] Because board representation protects affiliated lenders' interests it makes them less dependent on debt contracting and therefore reduces their demand for conservative accounting. Also, affiliated banks tend to be influential lenders to the firm and therefore their demands are expected to have a disproportionate effect on the firms' accounting choices.[4] Because conservative accounting is costly, we expect firms to reduce the extent of accounting conservatism when lenders demand less of it. Accordingly, we hypothesize that AFB firms will have less conservative accounting than non-AFB firms.

We test our hypothesis using a unique hand-collected dataset of board ties and lending relationships between non-financial firms and commercial banks. Our sample consists of 1,293 firms (6,481 firm-year observations) included in the S&P 1500 from 2000-2006. We use the asymmetric timeliness of earnings from Basu (1997) regressions as our primary conservatism measure. Specifically, we test our hypothesis by allowing the asymmetric timeliness of earnings to vary between AFB and non-AFB firms. Consistent with our hypothesis we find that AFB firms have significantly less conservative accounting than non-AFB firms—in fact, AFB firms have no conservative accounting. This result arises through both lower timeliness of bad news and greater timeliness of good news for AFB firms vis-à-vis non-AFB firms.

We perform a battery of tests to ensure our results are not driven by measurement issues with the Basu specification (Patatoukas and Thomas 2011) or correlated omitted variable bias. First, to ensure that our results are not driven by the possible bias in the Basu specification we (1)

[3] There is evidence that firms with lenders on their board take decisions that favor the lenders rather than the shareholders. For example, once on board, lenders exercise downward pressure on debt ratios in a manner divergent from shareholder interests (Byrd and Mizruchi 2005) and promote acquisitions with attributes that are unfavorable to shareholders but favorable to debtholders (Hilscher and Ciamarra 2011).

[4] For example, affiliated banks' syndicate on average hold more than 80% of AFB firms' private debt commitments and more than 50% of their total debt commitments. In addition, for half of these firms affiliated banks' syndicate is the sole provider of private debt.

augment our regression model by adding firm fixed-effects (Ball et al. 2011) and (2) use an alternative approach to measuring conservatism based on the Ball and Shivakumar (2006) specification. Our primary results are robust to these alternative specifications. Next, we perform four different analyses to control for confounding effects from both observable and unobservable factors. First, we control for an extensive list of firm and corporate governance characteristics associated with conservatism (Ahmed and Duellman 2007, 2011; LaFond and Watts 2008) and the presence of commercial bankers on boards (Gilson 1990; Kroszner and Strahan 2001). To avoid the multicollinearity introduced by the large number of interaction terms, we use a two-stage regression approach in which we first orthogonalize *AFB* to the controls and then use the orthogalized value of *AFB* to test our hypothesis (Nikolaev 2010). Second, we use propensity score matching to provide a matched sample so that the difference in conservatism between AFB and non-AFB firms is more likely driven by the presence of AFB. Third, to control for unobserved covariates we use a two-stage instrumental variable approach (2SLS). Our instruments include whether the primary lender has industry expertise in the firm's industry, whether a primary lender's headquarter is within a 50 mile radius of the firm's headquarter, and the number of commercial banks that have a headquarters in a 50 mile radius of the firm's headquarter. Finally, we estimate a "changes" specification by examining the extent of conservatism before and after the appointment of a banker to the board for a small subset of our sample firms. All four analyses consistently show that AFB firms use less conservative accounting than non-AFB firms and there is a significant reduction in conservatism once an affiliated banker is appointed on board, suggesting that our results are not driven by observable or unobservable confounding effects.

Our primary hypothesis proposes that AFB firms have lower conservatism because *lenders*' *demand* for monitoring through *conservatism-facilitated debt contracting* is lowered by the presence of an *affiliated banker on board*. There are three key elements to this hypothesis: board representation, affiliation with lender and lower demand for conservatism-facilitated debt contracting. We perform additional analyses to examine whether these three elements drive our primary results.

First, we test for the importance of board representation by comparing the effect of AFB on conservatism with that of traditional relationship lending. We measure relationship banking using the number, frequency, and amount of private loans issued to a firm by the firm's relationship lender as the lead bank in the prior five years (Bharath et al. 2011). We find that relationship lending, on average, is also associated with reduced conservatism. However, the effect of AFB on conservatism is distinct and stronger than that of relationship lending and relationship lending does not matter in the presence of AFB. These results suggest that, while the monitoring facilitated by relationship banking also reduces the demand for conservatism, *board representation* is important for reducing the monitoring demand for conservatism.

Second, we examine the importance of affiliation, by comparing the effects of affiliated banker on board on conservatism with that of unaffiliated banker on board. If it is the lending relationship that drives the lower demand for monitoring through conservative accounting, then we do not expect unaffiliated bankers to have a similar negative association with conservatism. We find that firms with unaffiliated bankers on board have the same level of conservatism as firms without any bankers on board and a significantly higher level of conservatism than firms with AFB. The contrast between affiliated and unaffiliated bankers on board lends support to the

second key element in our hypothesis that the reduction in conservatism is related to the *affiliation* of the board member with lenders.

Finally, we examine whether AFB firms have a lower demand for monitoring through debt covenants. If AFB is an alternative to conservatism-facilitated monitoring through debt covenants, then we expect that AFB firms use less monitoring through debt covenants. We find lower use of debt covenants in AFB firms and that the previously documented positive association between conservatism and debt covenants (Nikolaev 2010) vanishes for the AFB firms. These results lend support to the third key element in our hypothesis that the AFB-related reduction in conservatism arises because of lower monitoring demand for *conservatism-facilitated debt contracting*.

We contribute to the literature in important ways. First, our study advances the literature that examines the influence of corporate governance on financial reporting. A few studies (Ahmed and Duellman 2007, 2011; LaFond and Roychowdhury 2008; Ettredge et al. 2012), show that accounting conservatism is related to governance mechanisms such as board characteristics and managerial ownership. However, given the central role of debt contracting in the conservatism literature, it is important to understand how conservatism relates to *debtholder-oriented governance mechanisms*, which our study does. In this context, our study provides powerful—albeit indirect—support for the debt-contracting motivation for conservative accounting.[5]

Second, our study is the first to examine the financial reporting implications of having bankers on board. While an extensive literature in finance, management and sociology on bankers on boards (e.g. Mizruchi, 1996; Byrd and Mizruchi 2005; Güner et al. 2008) examines various strategic and financial consequences of bankers on board, the accounting implications of having

[5] Ball et al. (2000) conjecture that greater banker participation in management may explain why accounting in code law countries is less conservative. Our study directly confirms their conjecture.

bankers on board have hitherto been unexplored. Our study contributes to the larger literature on bankers on board by filling this void.[6]

II. HYPOTHESIS DEVELOPMENT

Conservative Accounting and Agency Cost of Debt

Debt contracting empowers debtholders with the option to take protective actions during financial distress through the control transfer triggered by covenant violations (Jensen and Meckling 1976). Accordingly, debt contracting has evolved as a mechanism to reduce the agency cost of debt (Jensen and Meckling 1976). Conservative accounting, in turn, facilitates debt contracting by triggering timely covenant violations—even in the presence of covenant slack—whenever there is significant bad news (Watts 2003a, 2003b; Ball et al. 2008). In support, the extant literature has shown that conservatism mitigates debtholder-shareholder conflicts (Ahmed et al. 2002; Zhang 2008) and that debt-contracting characteristics influence the extent of conservative accounting (Beatty et al. 2008; Nikolaev 2010). Therefore, conservative accounting also reduces the agency cost of debt by facilitating efficient debt contracting. In addition, because debtholders demand more timely disclosure of bad news than good news, conservative financial statements—that incorporate difficult-to-verify bad but not good news—are more informative from a debtholders' perspective (Guay and Verrecchia 2006). Therefore, conservative accounting could reduce the agency cost of debt also for informational reasons.

Although conservatism plays an important role in reducing the agency cost of debt, it can be costly for the firm and its managers. For example, conservatism creates inefficiencies for dividend and compensation purposes (Watts 2003a) and for equity valuation (Barth et al. 2001).

[6] In a similar vein, a recent paper by Vashishtha (2011) examines the effects of relationship banking on firms' disclosure policies. Vashishtha finds that relationship bankers use their influence over managers to limit the public dissemination of information that is available to them privately in order to protect their informational advantage over other lenders (Vashishtha 2011).

In addition, covenant violations—that may be triggered by conservatism—impose significant costs on firms (Beneish and Press 1993; Nini et al. 2009; Roberts and Sufi 2009a). Finally, managers are reluctant to report conservatively to the capital markets (Graham et al. 2005). Accordingly, the choice of the optimal amount of conservatism is based on a trade-off between benefits and costs of reporting conservatively.[7]

Affiliated Banker on Board and Agency Cost of Debt

It is possible that alternative mechanisms—such as appropriate corporate governance structures—may also achieve the goal of reducing the agency cost of debt. One particularly relevant governance structure is lender participation in management through board representation, i.e., having an affiliated banker on board. Many U.S. firms have bankers on their board.[8] While a majority of these bankers are *unaffiliated*, i.e., they represent banks that do not have a concurrent lending relationship with the firm, a significant proportion of the bankers on board are *affiliated*, i.e., they represent banks that have a concurrent lending relationship with the firm (Kroszner and Strahan 2001). While unaffiliated bankers sit on boards primarily as financial experts, affiliated bankers serve on boards of the borrowers also to enhance the lending relationship. Because board membership allows bankers to monitor the borrower and protect their interests, we propose that affiliated bankers on board (AFB) can serve as an alternative mechanism to conservatism-facilitated debt contracting to reduce the agency cost of debt.

[7] Consistent with most studies on conservative accounting, we focus on the role of conservative accounting in reducing the agency cost of debt (Ball et al. 2000, 2008; Ahmed et al. 2002; Bushman and Piotroski 2006; Zhang 2008; Nikolaev 2010). Because prior research suggests that other factors such as litigation risk may also influence conservative accounting (Watts 2003a), we control for a variety of these other factors in our analyses.

[8] For example, Santos and Rumble (2006) find that 25% of non-financial S&P 500 firms have bankers on their boards while Kroszner and Strahan (2001) find that this proportion is 32% in their sample of larger firms. Using a more broad-based sample, we find the incidence of bankers on board is about 11%, suggesting that bankers are more widely represented on boards of larger companies.

Board representation enhances the monitoring role of the affiliated banks by increasing information flow from the borrower to the affiliated bank.[9] Private information obtained through board representation is superior to financial information obtained through the regular loan negotiation process (Baysinger and Butler 1985; Hoshi et al. 1990, 1991; Stearns and Mizruchi 1993). Specifically, private information obtained through board representation is arguably more qualitative, more detailed, more forward-looking and timelier compared to periodic (quarterly) financial reporting data.[10] Moreover, it is less subject to managerial manipulation than financial statement information, and is therefore more reliable (Stearns and Mizruchi 1993). Affiliated lenders can use their private information to better monitor the firm and directly protect their interests by modifying loan terms, for example by increasing interest rates when there is significant bad news. First, because firms borrow fairly frequently, affiliated banks can modify lending terms for new loans. Second, affiliated lenders can also renegotiate lending terms on existing loans. For example, Roberts and Sufi (2009b) show that over 90% of long-term debt contracts are renegotiated prior to maturity and that more than 80% of these renegotiations arise without any covenant violations.[11] This suggests that there is ample scope for affiliated banks to renegotiate lending terms based on their private information, even in the absence of covenant violations.

[9] The relationship banking literature characterizes banks as "delegated monitors" who act as information intermediaries between borrowers and other lenders (Diamond 1984, 1991).

[10] Consistent with private information obtained through board representation being timelier than quarterly reports, we find that firms in our sample held on average eight full board meetings per year. This excludes committee meetings and informal meetings that board members have with each other and with management at other times during the year that can further increase the quality and timeliness of private information obtained through board representation (Conger et al. 1998).

[11] Loan contracts often contain "material adverse change clauses" that allow lenders to renegotiate loans based on material changes in default risk even if covenant violations have not occurred. A "material adverse change clause" provides that an event of default will arise when any material adverse changes occur in the condition (financial or otherwise) of the borrower that gives the lender grounds to believe that the borrower may not, or will be unable to, perform or observe its obligations under the agreement.

In addition to superior monitoring, board representation also confers affiliated banks some degree of influence over borrowers' decision making, thus preventing decisions that could decrease the value of debt. First, board representation could directly confer some influence over the firms' decision making, both through the formal power derived as board members and through the informal power wielded by the affiliated bankers over other board members because of their expertise.[12] Second, the adverse selection problem that results from affiliated banks' information advantage over unaffiliated lenders (both current and potential future lenders) makes it difficult for firms to switch lenders, thereby allowing the affiliated lenders to become quasi monopolists (Sharpe 1990; Rajan 1992). The affiliated banks can use this monopoly power to coerce firms into adopting policies that protect affiliated banks' interests. Evidence suggests that lenders do use their power on the board to coerce the borrower to adopt lender-friendly policies. For example, once on board, lenders exercise downward pressure on debt ratios in a manner divergent from shareholder interests (Byrd and Mizruchi 2005), coerce firms without financial constraints and few investment opportunities (but low default risk) to obtain large loans (Güner et al. 2008), and promote acquisitions with attributes that are unfavorable to shareholders but favorable to debtholders (Hilscher and Ciamarra 2011).

Of course, lender board representation imposes significant costs on the borrowers. An obvious cost is the potential reduction in operational flexibility due to improved monitoring. More importantly, there is an inherent conflict of interest between the banker-directors' fiduciary duty to protect shareholders' interests and their responsibility to further the interests of the banks that they represent (Güner et al. 2008). In addition, having close ties with a lending bank could result in the bank exploiting its informational advantage into a pricing advantage and thus extracting rents from the borrowing company (Rajan 1992). Finally, board representation also imposes costs

[12] See French and Raven (1959) for various types of informal power, including those arising from expertise.

on the affiliated bank because of lender liability created by U.S. legal doctrine (Kroszner and Strahan 2001).

In sum, improved monitoring and increased influence arising from board representation reduces the agency cost of debt, at least for the affiliated lenders. However, board representation imposes significant costs on both the borrower and the lender. Because of these non-trivial costs to both lenders and borrowers, AFBs are not as widely prevalent on the boards of non-financial firms as one would otherwise expect, despite their benefits in reducing the agency cost of debt (Kroszner and Strahan 2001).

AFB as a Substitute for Conservatism-Facilitated Debt Contracting

Board representation allows affiliated lenders to better monitor the borrower. Therefore, we expect affiliated lenders to rely less on debt contracting to protect their interests.[13] A natural corollary of less reliance on debt contracting is less demand for conservative accounting from the affiliated banks. Because conservatism is costly to the borrowing firm, we therefore expect less conservative accounting in AFB firms *ceteris paribus*. It is important to note that we are not implying that lender board representation is motivated by a desire to reduce reliance on conservatism-facilitated debt contracting. There could be many reasons for having an AFB that are unrelated to conservatism or debt contracting. However, once there is an AFB, the importance of debt contracting and conservatism for reducing the agency cost of debt diminishes, and because conservatism is costly, this results in a reduction in the extent of conservatism.

For AFB to reduce conservatism, however, the firm should not be influenced by demand for conservative accounting from *unaffiliated* lenders. We do not expect unaffiliated lenders' demands to affect accounting conservatism for at least two reasons. First, affiliated banks and

[13] Consistent evidence is provided by Ciamarra (2011) who shows that loans from affiliated banks contain fewer covenants.

members of their loan syndicates (affiliated lenders, hereafter) are the most important group of debtholders for AFB firms, partly because the affiliated lenders' informational advantage over other lenders makes it unattractive for other lenders to compete for AFB firms' loan business as doing so would expose these lenders to the winner's curse (Rajan 1992).[14] Thus, the benefits of conservatism are significantly lower for AFB firms given that they rely mostly on affiliated lenders for their debt financing. Second, because U.S. legal doctrine offers unaffiliated lenders, in the event of a default, the opportunity to sue lenders that are represented on the board (Krozner and Strahan 2001), affiliated lenders have a strong incentive to ensure that *all* lenders are protected from an increase in default risk. Because of this, unaffiliated lenders may not demand conservative accounting as they are protected by the affiliated lender's actions.

Overall, for the reasons discussed above, we expect AFB firms to have a lower demand for conservatism from both affiliated and unaffiliated lenders and consequently less conservative accounting. This expectation is formalized as our first hypothesis:

H_{1A}: *Firms with an affiliated banker on board have less conservative accounting than firms without an affiliated banker on board.*

We hypothesize that the negative association between AFB and conservatism arises because lenders' demand for monitoring through conservatism-facilitated debt contracting is lowered by the presence of an affiliated banker on board. Therefore, there are three key elements to our hypothesis, i.e., board representation, affiliation with lender, and reduction in conservatism-facilitated debt contracting. In Section VI we propose and test additional hypotheses related to these three elements.

[14] Untabulated analyses show that, in our sample, affiliated banks' syndicate on average hold more than 80% of AFB firms' private debt commitments and more than 50% of their total debt commitments. In addition, for half of these firms affiliated banks' syndicate is the sole provider of private debt and for a quarter of these firms affiliated banks' syndicate provides almost 80% of total committed long-term debt. Moreover, we find that once an affiliated banker joins a board the affiliated bank is involved in the vast majority of new private loans issued to a firm (91%).

Finally, we emphasize that AFB is costly for the firm (and the affiliated bank). While we note that conservative accounting also imposes costs on the firm, it is likely more costly for a firm to have lender representation on the board. For these reasons, we note that AFB is not always the preferred solution to lower the agency cost of debt, which is probably why AFB is not as widely prevalent as one would expect otherwise.

III. SAMPLE SELECTION AND VARIABLE DEFINITION

Sample Selection

The sample consists of 1,293 non-financial firms and 6,481 firm-year observations that were included in the S&P 1500 index from 2000 to 2006. We drop all financial firms from our sample (SIC 6000-6900) because we are interested in lending relationships between commercial banks and non-financial firms. To be included in our sample, a firm has to satisfy the following criteria. First, a firm's board members must have biographic information available in the *BoardEx* database. The data provided by *BoardEx*, a professional business network, are new in the literature and have been used, for example, by Cohen et al. (2010).[15] Second, the firm must have loan information available in the *DealScan* database. We merge our sample with the *DealScan* database using the link file used in Chava and Roberts (2008).[16] Finally, we require firms to have necessary data from *Compustat*, *CRSP*, *Corporate Library*, *Thomson Reuters*, and *Risk Metrics* for the variables used in our analyses. We discuss these variables in detail below.

[15] The *BoardEx* database contains biographic information on over 400,000 executives and board members, as well as data on board composition and committee appointments of public and private firms from all major countries across the world.

[16] We thank Sudheer Chava and Michael Roberts for sharing their *Dealscan-Compustat* link file with us.

Variable Definitions

Affiliated Bankers on Board (AFB)

Following Krozner and Strahan (2001), we classify directors as being bankers when they are executives of commercial banks. We exclude executives from investment banks because we do not expect investment banking relationships to have the same effect on conservative accounting as commercial loan lending relationships. Using biographic information from *BoardEx* and information on commercial banks obtained from FDIC's institution directory and Hoover's online we classified 11% of firm-year observations (711 observations) as having at least one commercial banker on their board.[17, 18] Further, we classify banker directors as being affiliated bankers when their bank belongs to a loan syndicate that has an outstanding loan agreement with the firm during the fiscal year. Because *DealScan* overwrites the history of a lender's parent and ultimate parent after mergers and a large number of commercial banks have been involved in mergers, we supplement loan data from *DealScan* with ownership data from the Federal Reserve's National Information Center to determine whether a banker director's bank had an outstanding loan agreement with a firm during the fiscal year.[19] We also cross-check the ownership data from Federal Reserve National Information Center with other information sources such as companies'

[17] We exclude firms that are not primarily commercial banks. For example, we exclude firms that are primarily engaged in non-commercial banking activities (such as Merrill Lynch), but include commercial banking subsidiaries of diversified firms (such as GE capital).

[18] For a variety of reasons this percentage is lower than that reported by Kroszner and Strahan (2001) who report that 31.6% of the firms in their sample have a banker on their board. First, Krozner and Strahan (2001) focus on a narrower set of firms in a different time-period. They limit their sample to firms that appeared in the Forbes 500 list in 1992. Second, Krozner and Strahan (2001) do not exclude banks that are primarily engaged in non-commercial banking activities. Our estimate of the prevalence of commercial bankers on corporate boards is similar to the one found by Booth and Deli (1999) who find that 23% of S&P 500 firms in 1990 have a commercial banker on their board. We find that 19% of our sample firms have a commercial banker on their board when we restrict our sample to S&P 500 firms in 2000.

[19] For example, FleetBoston was acquired by Bank of America in 2004 and *DealScan* codes all FleetBoston loans to be from Bank of America even before 2004. Thus, we would misclassify a firm with an unaffiliated banker from Bank of America on board as having an affiliated banker, even though there was no lending relationship between the firm and Bank of America at that time.

own websites. Using this methodology we classified 4.8% of firm-year observations (311 observations) as having *AFB*.

Measuring Conservatism

We measure conservatism using Basu's (1997) specification:

$$Earnings = \alpha_0 + \beta_1 DR + \beta_2 Ret + \beta_3 Ret \times DR + \varepsilon \quad (1)$$

where *Earnings* is earnings before extraordinary items scaled by market value of equity at the beginning of the fiscal year; *Ret* is the 12-month buy-and-hold return over the fiscal year; and *DR* is an indicator variable that equals one when *Ret* is negative, and zero otherwise. In this specification, β_2 measures the timeliness of earnings in incorporating good news (hereafter, timely gain recognition), and $\beta_2 + \beta_3$ measures the timeliness of earnings in incorporating bad news (hereafter, timely loss recognition). Our primary interest is on β_3, the asymmetric timeliness of earnings in incorporating bad news compared to incorporating good news (hereafter, asymmetric timeliness coefficient).

Our hypothesis predicts that AFB firms have less conservative accounting than non-AFB firms. To test this hypothesis, we allow β_3 in model (1) to take different values for AFB and non-AFB firms. Specifically, we estimate the following model:

$$Earnings = \alpha_0 + \beta_1 DR + \beta_2 AFB + \beta_3 DR \times AFB + \beta_4 Ret + \beta_5 DR \times Ret + \beta_6 Ret \times AFB + \beta_7 DR \times Ret \times AFB + \varepsilon \quad (2)$$

Where *AFB* equals one when firms have affiliated bankers on their board, and zero otherwise; all other variables are as defined in model (1). Our hypothesis predicts that β_7 is negative, that is, AFB firms have a lower asymmetric timeliness coefficient. To ensure that outliers do not drive our results, we estimate our model after dropping the top 1% of absolute standardized residuals. In addition, to control for residual dependence in our pooled time-series cross-sectional regression, we cluster standard errors at the firm level.

Panel A of Table 2 presents descriptive statistics on the measures used to estimate model (2) separately for AFB and non-AFB firms. The panel shows that AFB firms have higher earnings (*Earnings*) and are less likely to have negative annual stock returns (*DR*) than non-AFB firms. However, AFB firms' lower probability of having negative annual stock returns does not lead to a significant difference in the magnitude of annual stock returns (*Ret*).

IV. AFB AND CONSERVATISM

Primary Analysis

Table 2 Panel B presents the results of estimating model (2). Consistent with our hypothesis the panel reports that β_7 is negative (-0.163) and significant at $p < 0.01$, suggesting that AFB firms have lower asymmetric timeliness coefficients than non-AFB firms. For ease of interpretation, Panel C presents estimates of the timely loss recognition (column 1) and timely gain recognition (column 2), and two measures of conservatism separately for AFB and non-AFB firms. Our first measure of conservatism presented in column (3) is timely loss recognition minus timely gain recognition (Basu 1997), and our second measure presented in column (4) is timely loss recognition divided by timely gain recognition (Bushman and Piotroski 2008). Consistent with our hypothesis, the panel shows that both asymmetric timeliness measures are significant for non-AFB firms, but not for AFB firms; and the difference in asymmetric timeliness between AFB and non-AFB firms is statistically significant at $p < 0.05$ for both measures. Moreover, the panel shows that AFB firms have significantly lower timely loss recognition (column (1)) and higher timely gain recognition (column (2)) than non-AFB firms, which again confirms that AFB firms

use less conservative accounting (Guay and Verrechia 2006). Thus, overall the results presented in Panels B and C of Table 2 are consistent with AFB firms using less conservative accounting.[20]

Alternative Methods for Measuring the Asymmetric Timeliness of Earnings

Recently, Patatoukas and Thomas (2011) report potential bias in firm-level cross-sectional estimates of the asymmetric timeliness coefficient (β_3) in the Basu specification. To ensure that our results are not driven by this bias we follow the suggestion made by Ball et al. (2011) and estimate model (2) after adding firm fixed-effects. As explained in Ball et al. (2011), when firm-specific effects in earnings are taken into account, estimates of the asymmetric timeliness coefficient in the Basu specification do not exhibit the bias and behave as a predictable function of firm characteristics associated with conservatism (market-to-book, size and leverage). The results of this analysis are presented in Panel A of Table 3. We find a big reduction in the asymmetric timeliness coefficient for non-AFB firms (β_5) from 0.173 in Table 2 Panel B to 0.062 after adding firm fixed-effects, consistent with the reduction of bias with the inclusion of firm fixed-effects. Our results, however, are unaffected by this modification: we again find that β_7 is negative (-0.084) and significant at $p < 0.10$.

In addition, to ensure that our results are not driven by other bias in the Basu specification related to using returns to capture economic news (Dietrich et al. 2007; Givoly et al. 2007), we also measure conservatism using the Ball and Shivakumar (2006) specification:

$$Accruals = \alpha_0 + \beta_1 DCF + \beta_2 \Delta CF + \beta_3 DCF \times \Delta CF + \varepsilon \quad (3)$$

where *Accruals* is earnings before extraordinary items minus cash flow from operating activities scaled by average total assets; ΔCF is the annual change in operating cash flow scaled by average total assets; and *DCF* is an indicator variable that equals one when ΔCF is negative,

[20] For brevity we only use the first measure of conservatism, i.e., asymmetry timeliness coefficient, in all following analyses.

and zero otherwise. In this specification, β_2 measures the timeliness of accruals in incorporating good news (i.e., a positive change in operating cash flows), and $\beta_2 + \beta_3$ measures the timeliness of earnings in incorporating bad news (i.e., a negative change in operating cash flows). As in model (1), the asymmetric timeliness coefficient β_3 is used to measure conservatism.[21]

Similarly to our main analysis, we test our hypothesis by allowing β_3 in model (3) to take different values for AFB and non-AFB firms. Specifically, we estimate the following model:

$$Accruals = \alpha_0 + \beta_1 DCF + \beta_2 AFB + \beta_3 DCF \times AFB + \beta_4 \Delta CF + \beta_5 DCF \times \Delta CF + \beta_6 \Delta CF \times AFB + \beta_7 DCF \times \Delta CF \times AFB + \varepsilon \quad (4)$$

Our hypothesis predicts that β_7 is negative.[22] The results of this analysis are presented in Panel B of Table 3. Consistent with our hypothesis, the panel shows that β_7 is negative (-0.667) and significant at $p < 0.05$. Thus, the results presented in Table 3 suggest that our results are not driven by the possible bias in cross-section estimates of the asymmetric timeliness coefficient in the Basu specification.[23]

Controlling for Confounding Effects

A natural concern for our main analysis above is that the relationship between AFB and accounting conservatism is affected by factors omitted from model (2), the basic model. To ensure that our results are not driven by confounding effects, we perform the following four analyses.

[21] We note that in the Ball and Shivakumar specification, one expects to find a negative and significant β_2 because of the negative correlation between accruals and cash flows; as a result, an insignificant or even negative $\beta_2+\beta_3$ (bad news timeliness) is expected under conservative accounting. Thus the focus is on β_3: a positive and significant β_3 is the evidence of the asymmetric timeliness of accruals.

[22] For sake of brevity, we do not report descriptive statics of the measures used in this model. In an unreported analysis we find that AFB firms have slightly lower accruals than non-AFB firms, but do not differ from non-AFB firms with respect to the probability of having a negative change in operating cash flows and the magnitude of the change in operating cash flows.

[23] Similar to the negative β_2 in Ball and Shivakumar (2006), we find a negative and significant β_4 for non-AFB firms. Our focus, however, is on β_7, which captures the asymmetric timeliness coefficient of AFB firms.

Adding Control Variables in a Two-stage Regression

In our first analysis, we control for the following firm characteristics (see Table 1 for variable definitions). First, we control for firm-characteristics that have been shown to be associated with conservatism (LaFond and Watts 2008), including market-to-book, leverage, and litigation risk. Second, we control for corporate governance characteristics that have been shown to be associated with conservatism (Ahmed and Duellman 2007). In particular, we include measures of board independence, board size, separation of chairman and CEO, average outside directorships, inside director ownership, outside director ownership, institutional ownership, and an overall corporate governance index (G-Score). Third, we control for factors that are associated with the probability of having commercial bankers on corporate boards (Gilson 1990; Kroszner and Strahan 2001): stock return volatility, the square of stock return volatility, firm size, tangibility of assets, having a commercial credit rating, capital structure, a firm's industry membership, and bankruptcy risk.

Panel A of Table 4 presents descriptive statistics on these measures for AFB and non-AFB firms. The panel shows that AFB firms tend to have higher leverage than non-AFB firms, but do not differ with respect to market-to-book and litigation risk. AFB firms also differ from non-AFB firms in corporate governance practices. In particular, AFB firms tend to have larger boards than non-AFB firms, consistent with networking opportunities being an important driver for bankers to join corporate boards. We find that AFB firms have lower inside director ownership and lower institutional holdings, probably because inside directors consider extra monitoring from affiliated bankers to be costly and AFB is potentially an alternative monitoring mechanism to institutional holdings. Also, consistent with Kroszner and Strahan (2001) the panel shows that AFB firms tend to have lower stock return volatility, higher tangibility of assets, a higher probability of having a

commercial paper rating and are larger than non-AFB firms. Overall it appears that the presence of AFB is the result from a trade-off between the benefits and costs as captured by volatility, size, etc.; and is also associated with some other board characteristics and governance mechanisms. This comparison suggests that these control variables are potentially important confounding factors.

One problem of adding control variables to a Basu regression is that the simple and triple interactions of the control variables with *DR* and *Ret* introduces significant multi-collinearity into our analysis. To address this problem we adopt a two-stage regression methodology similar to Nikolaev (2010). In the first stage, we estimate a logit model in which we regress *AFB* on the control variables discussed above (see Table 4 Panel B Column (1) for estimation results). The regression results are similar to the univariate results presented in Panel A. Firms with more assets, higher tangibility, lower squared volatility and access to commercial ratings are more likely to have AFB; and firms with lower inside director ownership, higher outside director ownership, and lower institutional holdings are also more likely to have AFB.

In the second stage, we modify Model (2) by replacing the *AFB* measure with the standardized residual from the first-stage logit model.[24] Because the residuals are orthogonal to the control variables included in the first-stage logit model, this approach alleviates the concern that our results are driven by confounding effects without introducing significant multi-collinearity in our second-stage model. The results of this analysis are presented in column (1) of Table 4 Panel C. Consistent with our hypothesis, column (1) shows that β_7 is negative (-0.021) and significant at $p < 0.05$, i.e., AFB firms are significantly less conservative than non-AFB firms after controlling for firm characteristics associated with conservatism and the presence of AFB.

[24] In this test and the following tests where AFB is a transformed variable from the original dichotomous variable, we standardize the residual (or the predicted value) of AFB to have a mean of zero and standard deviation of one, for the ease of interpretation.

Thus, the results presented in column (1) suggest that our results are not driven by correlated omitted variables.

Propensity Score Matching

In our second analysis we use a propensity score matching technique (PSM, hereafter). The purpose of PSM is to provide a matched sample with close firm and board characteristics between AFB and non-AFB firms; thus the observed difference in conservatism between AFB and non-AFB firms is more likely driven by whether a firm has AFB or not. Specifically, we match each AFB firm to three non-AFB firms that have the closest propensity to have AFB. We use the first-stage logit model discussed above to derive propensity scores and require matches to have a maximum caliper difference of 0.01. This matching procedure reduces our sample from 6,481 to 1,101 firm-year observations.[25] Subsequently, we estimate model (2) using this matched sample. Consistent with our previous findings, the results presented in column (2) of Table 4 Panel C show that β_7 is negative (-0.116) and significant at $p < 0.05$. Thus, the results of the propensity score analysis also suggest that observable correlated factors do not drive our results.

Two-stage Least-squares Instrumental Variable Regression

Thus far, we have shown that our results are not driven by a comprehensive list of factors that prior literature has shown to be associated with conservative accounting or the presence of AFB. However, it remains possible that common *unobservable* factors could drive both the affiliated bankers' decision to sit on the board and the firm's level of conservatism. To address such endogeneity concerns, we use a two-stage least-squares instrumental variable regression technique (2SLS, hereafter).

[25] In an untabulated analysis we find that the covariates of the first-stage regression model are balanced between AFB and matched non-AFB firms.

In the first stage, we develop an IV estimator using three instruments. The first instrument captures the importance of a firm's industry to its primary lender (*Importance industry to primary lender*). We define this variable as the fraction of all loans issued by a firm's primary lender in the firm's industry (Fama-French 48-industry group classification) during the past 5 years, excluding the loans issued to the focal firm. [26] Outside directorships provide valuable information about the industry in which firms operate. As a result, bank executives are more likely to sit on boards of firms in industries that represent a larger fraction of their loan portfolios (Kroszner and Strahan 2001). Our second instrument measures the geographical proximity of a firm's primary lender (*Primary lender within 50 mile radius*). We define this variable to be an indicator variable that equals one when the primary lender's headquarter is within a 50 mile radius of the firm's headquarter, and zero otherwise. As physical distance increases the cost of board presence, we expect banker directors that are close to their clients to be more likely to serve on their client's board. Our last instrument captures the availability of bankers that can potentially sit on the board (*Number of commercial banks within 50 mile radius*). This variable is defined as the number of commercial banks that have a headquarters within a 50 mile radius of the firm's headquarter. We expect the chance of the affiliated bankers sitting on the board to become smaller if the firm finds a large pool of talent close by.

We operationalize our 2SLS approach as follows. In the first stage, we estimate a logit model in which we regress *AFB* on the three instruments. Estimation results of the first-stage logit model (presented in Column (2) of Table 4 Panel B) confirm that *Importance industry to primary lender* and *Primary lender within 50 mile radius* are positively and significantly associated with

[26] We designate lenders as being primary lenders when they hold the largest fraction of a firm's private debt outstanding at the end of the fiscal year. Because data on lender shares is typically not available we assume that all syndicate members hold an equal share of the loan. When our approach for identifying primary lenders identifies multiple lenders we take the maximum of each measure across all primary lenders.

the presence of AFB while *Number of commercial banks within 50 mile radius* is negatively and significantly associated with AFB.[27] Then we replace *AFB* in Model (2) with the standardized predicted value of this regression in the second stage model. The results of estimating the second stage of our first 2SLS model are presented in column (3) of Table 4 Panel C. The results of the second-stage analysis again confirm that AFB firms are less conservative than non-AFB firms. Specifically, β_7 is negative (-0.033) and significant at $p < 0.05$.

Next, we consider simultaneously controlling for both the observable and unobservable factors. However, due to the unique specification of Basu regression, we need to incorporate the control variables also in the first stage to ensure that the second-stage result is not driven by firm characteristics correlated with conservatism or the propensity of having AFB. Accordingly, we regress AFB on our IV estimator and the set of observable control variables that we discussed earlier. Estimation results of this regression are presented in Column (3) of Table 4 Panel B. To isolate the influence of the instruments on the probability of having AFB conditional on the control variables, we calculate the marginal effect of the instruments.[28] In the second stage, we replace the *AFB* measure in model (2), with the marginal effect of the instruments on AFB (again, standardized) to ensure that the 2SLS results are not driven by correlated omitted variables. The results of estimating the second stage of our second 2SLS model are presented in Column (4) of Table 4 Panel C. The results again confirm that AFB firms are less conservative than non-AFB

[27] We use ROC (Receiver Operating Characteristic) curve analysis to measure the accuracy of the logistic regression at classifying firms as having AFB or not (for details of the ROC analysis, see standard texts on logistic regression such as Hosmer and Lemeshow (2000)). In particular, the power of the model's predicted values to discriminate between AFB and non-AFB is quantified by the Area under the ROC curve (AUC). Our model of three instruments (column (2) of Table 4 Panel B) provides an AUC of 0.7, which is considered to be an acceptable level of discrimination by Hosmer and Lemeshow (2000). We also find that an AUC of 0.7 is significantly different from 0.5 with $p < 0.01$. Thus, the ROC analysis indicates that these instruments are able to predict the presence of AFB with reasonable accuracy.

[28] The marginal effect of the instruments is computed as follows. First, we compute the predicted probability of AFB from regressing AFB on both instruments and controls (Table 4 Panel B Column (3)). Second, we compute the predicted probability of AFB from controls only, by setting the estimated coefficients of the three instruments in Table 4 Panel B Column (3) to zero. Third, we subtract the predicted probability from the second step from the predicted probability from the first step to obtain the marginal effect of the instruments.

firms. Specifically, β_7 is negative (-0.163) and significant at $p < 0.01$. Overall, both 2SLS models with and without controls support our prediction that AFB is negatively associated with conservatism, alleviating the concern that this result is driven by endogeneity.

While we maintain that our three instruments unlikely directly affect accounting conservatism, one could argue that our instruments are not exogenous if industry expertise of the banker or the geographical proximity to the firm reduces information asymmetry between the bank and the firm and thus reduces lenders' demand for conservatism. Accordingly we ascertain that our instruments are not endogenous by performing a variant of the standard over-identifying restrictions test (Larcker and Rusticus 2010). A standard over-identifying restrictions test involves regressing the residual from the second stage regression on the instruments—significant coefficients on the instruments suggest that they are not exogenous. However, the uniqueness of our second stage regression (Basu model) renders such a test meaningless. Accordingly, we conduct a test that shows that our instruments are unrelated to conservatism except through their association with AFB. For this purpose we estimate a Basu-model where we interact the Basu variables with our three instruments *and* AFB (for a similar test, see Leuz and Oberholzer-Gee 2006). Including AFB as one of the interactions allows us to tease out the *indirect* effect of the instruments on conservatism through their correlation with AFB. Untabulated results indicate that neither of the three instruments has a significant effect on conservatism (other than *indirectly* through their association with AFB), thus alleviating the concern that our instruments are endogenous.

Change Analysis

We identify a reduced sample of 53 AFB firms for which the AFB relationship was initiated during our sample period (i.e., 2000-2006) and use this sample to conduct a "change" analysis. In

this analysis we compare conservatism in the two years before the affiliated banker joined the board with conservatism in the two years after the affiliated banker joined the board (the year of initiation is eliminated from our analysis).[29] In this analysis, the *Affiliated Banker* dummy is defined to be zero in the two years before and switches to one in the two years after the change. We repeat our basic regression on this change sample and again find a negative and significant β_7 (-0.246, $p < 0.01$), suggesting that the appointment of an affiliated banker on board has an immediate effect on lowering conservatism. The change analysis reinforces our inferences regarding the causality of our findings.

V. TESTING ADDITIONAL HYPOTHESES

The primary hypothesis of our paper is that a negative association between AFB and conservatism arises because *lenders*' *demand* for monitoring through *conservatism-facilitated debt contracting* is lowered by the presence of an *affiliated banker on board*. There are three key elements to this hypothesis:

1. *Board representation.* Our hypothesis proposes that board representation by an affiliated lender has an effect on conservatism that is distinct from that of other types of lending relationships. This suggests that AFB should have a stronger effect on conservatism than merely a close relation between the lender and the borrower, such as that in a relationship banking setting.
2. *Affiliation.* Our hypothesis proposes that the AFB firms have lower conservatism because *affiliated lenders* have an alternative form of monitoring through their board representation. Therefore, it is important that the banker on board is affiliated, i.e., s/he

[29] Our results are robust to alternative windows such as one or three years before and after the AFB relationship was initiated.

represents lender interests. This suggests that in the absence of affiliation the mere presence of a banker on board will not lower conservatism.

3. *Conservatism-facilitated debt contracting*. Finally, our hypothesis proposes that the AFB is an alternative to the conventional monitoring through debt contracting, of which conservative accounting is an integral part. This suggests that the use of debt covenants and the use of conservative accounting to facilitate covenant efficiency would be less valuable in the presence of an AFB.

Accordingly, in this section we develop additional hypotheses that specifically relate to these three maintained premises and test them through various empirical analyses. First, we examine whether the presence of AFB has a stronger effect on conservatism than traditional relationship banking. Second, we examine whether there are differences in the extent of conservatism across affiliated and unaffiliated bankers on board. Finally, we examine whether debt covenants are used less by AFB firms, and whether the association between conservatism and debt covenants is mitigated by the presence of an AFB.

AFB versus Relationship Lending

First we examine whether board representation by the banker has an effect on conservatism that is distinct from that of other types of lending relationships. For that purpose we compare AFB with relationship lending. Relationship lending refers to close and influential ties between private lenders and borrowers that facilitates monitoring by lenders (e.g. Petersen and Rajan 1994; Bharath et al. 2011).[30] Relationship lending can be argued to have similar effects on conservative accounting as having an AFB. Specifically, relationship lending can result in greater flow of

[30] The literature does not provide a formal definition of relationship banking. The only definition we found was in a survey paper by Boot (2000): "[when] a bank invests in obtaining customer-specific information, often proprietary in nature; and evaluates the profitability of these investments through multiple interactions with the same customer over time and/or across products".

private information to the lenders and lenders can exert some control over management, for example, by using short term debt, tight covenants and frequent renegotiation of lending terms. Like having a banker on board, relationship lending can also allow lenders to extract information rents (Sharpe 1990; Rajan 1992). Thus, the greater flow of private information and tight control from relationship lending could also reduce lenders' demand for conservatism in the public reports. To the extent that AFB firms also engage in relationship lending, one could argue that the negative relation between AFB and conservatism is explained by relationship lending as opposed to AFB.

On the other hand, it is possible that much of the reduced conservatism associated with AFB arises because of certain unique factors that differentiate AFB from other forms of relationship lending. For example, relationship lending is characterized by extensive use of debt covenants (Boot 2000) and could therefore create a greater demand for conservatism than AFB where the demand for covenants is reduced (Ciamarra 2011). In addition, lenders may feel that they can eschew the protections offered by conservative accounting when their representatives are on board but not otherwise—after all, board members are part of the firms' governance structure and should be privy to more information than that of even a closely associated lender. Finally, unlike AFB, relationship lenders are not subject to lender liability and can therefore use their relationship to serve their own interests at the expense of other lenders, thereby increasing the demand for conservatism from other lenders. For all these reasons, we expect that AFB's effect on reducing conservatism to be distinct and stronger than that from other forms of relationship lending.

Accordingly we propose the following two hypotheses:

H_{2A}: *Firms with strong relationship lending have less conservative accounting*.
H_{3A}: *The extent of reduction in conservatism through AFB is more pronounced than that through relationship lending*.

Our measures of relationship lending are closely related to those used by Bharath et al. (2011).[31] Similar to Bharath et al. we classify lenders as being relationship lenders when the lender was retained as a lead bank for a loan outstanding at the end of the fiscal year and the lender was also a lead bank for at least one other loan issued to the firm in the prior five years.[32]Our three relationship lending measures are defined as follows: (1) *Number of loans* equals the number of private loans issued to a firm in the prior five years for which the firm's relationship bank was retained as a lead bank; (2) *Relative frequency of loans* equals *Number of loans* scaled by the number of private loans issued to a firm in the prior five years; and (3) *Relative amount of loans* equals the loan amount corresponding to *Number of loans* scaled by the total amount of private loans issued to a firm in the prior five years. Whenever multiple lenders are designated as relationship banks we take the maximum of each measure across all relationship banks. Because all three measures capture different, but related aspects of relationship lending, we combine them into one measure of the overall strength of relationship lending. In particular, we create an indicator variable, *Relationship lending*, that equals one when the values of all three relationship lending measures (i.e., *Relative frequency of loans*, *Number of loans* and *Relative amount of loans*) are in the top quartile of the sample, and zero otherwise.[33]

Panel A of Table 5 provides descriptive statistics on the three components of our relationship lending measure for the firms with *Relationship lending* equal to one. The panel shows that these firms typically have lenders that were retained as a lead bank on at least five loans issued in the prior five years and that these loans generally represent all private loans that

[31] Because we need a firm-year level measure of relationship lending, we compute the three relationship lending measures that are computed at the loan level in Bharath et al. (2011) at the firm-year level.

[32] Following Bharath et al. (2011), we classify a bank as lead bank if lead arranger credit is 'Yes", or the bank is coded as either "agent", "administrative agent", "arranger" or "lead bank" in *DealScan*.

[33] We find similar results when we instead require the factor score from a principal component factor analysis of the three standardized measures to be in the top decile of our sample. Consistent with all three measures capturing different but related aspects of relationship lending, we find that the factor analysis results in only one factor with an eigenvalue larger than one (2.64) and that all factor loadings for this factor are positive.

were issued during this time period. Thus, clearly firms with *Relationship lending* equal to one have many interactions with their lenders through repeated lending. However, inconsistent with our results being driven by repeated lending between affiliated lenders and AFB firms, we find that only 55 out of 311 firm-year observations with AFB are classified as having *Relationship lending* equal to one. Thus, it does not appear that our results are driven by the acquisition of private information through repeated lending. Nevertheless, we formally test the effect of relationship banking on conservatism by allowing the asymmetric timeliness of earnings to vary with *AFB* and *Relationship lending*. This results in the following regression model:

$$\begin{aligned} Earnings = {} & \alpha_0 + \beta_1 DR + \beta_2 AFB + \beta_3\, Relationship\ lending + \beta_4 DR \times AFB + \beta_5 DR \times Relationship\ lending \\ & + \beta_6 Ret + \beta_7\, DR \times Ret + \beta_8 Ret \times AFB + \beta_9 Ret \times Relationship\ lending + \beta_{10}\, DR \times Ret \times AFB + \beta_{11}\, DR \times Ret \\ & \times Relationship\ lending + \varepsilon \end{aligned} \quad (5)$$

We report the results of estimating Equation (5) in Panel B of Table 5. To ease the interpretation, we only report reconstructed asymmetric-timeliness coefficients in a 2×2 table, where AFB and *Relationship lending* are the two dimensions. The last column reports asymmetric timeliness coefficients partitioned on *Relationship lending* and shows that firms with relationship lending exhibit significantly lower levels of conservatism than firms without relationship lending—the asymmetric-timeliness coefficient for those with relationship lending (0.094) is about half of those without relationship lending (0.175). This result is consistent with reduced demand for accounting conservatism in firms with strong relationship lending, arising probably from the close monitoring and tight control of relationship lenders. Thus, our evidence suggests that the negative relation between AFB and conservatism can be generalized to other forms of relationship lending.

Next we examine the interaction between relationship lending and AFB on conservatism. We predict that, while strong relationship lending should reduce conservatism, the effect of AFB on conservatism should be stronger. A comparison of the bottom row with the last column of

Table 5 Panel B shows that the main effect of AFB on the asymmetric timeliness coefficient is much greater than that of relationship lending— not only is the magnitude of the main effect larger for AFB (-0.160) than for relationship lending (-0.081),[34] but firms with relationship lending still have significant asymmetric timeliness coefficients (0.094), while those with AFB do not (0.010).[35] The three top (left) rows (columns) in Panel B presents the asymmetric timeliness coefficients for the two-way interaction between AFB and relationship lending. We find that relationship lending has a significant effect on conservatism only for non-AFB firms but not for AFB firms—for non-AFB firms relationship lending lowers conservatism from 0.177 to 0.096 (first column), but for AFB firms the asymmetric timeliness coefficients are essentially zero for firms with or without relationship lending (third column). In contrast AFB has a large effect on conservatism for firms with and without relationship lending—in both cases significant asymmetric timeliness coefficients for firms without AFB (0.177 and 0.096 for the partitions without and with relationship lending) drop down to almost zero when there is AFB. Overall, we conclude that while relationship lending can have a negative effect on conservatism that is similar to that of AFB, the effect of AFB is distinct and much stronger than that of relationship lending. In particular, relationship lending is superfluous for AFB firms.

[34] An F-test (untabulated) suggests that this difference is significant at $p < 0.01$.

[35] One may argue that the effect of AFB could contain some of the effect of relationship lending, thus we compare the effect of AFB in absence of relationship lending (-0.180, middle cell of top row) to the effect of relationship lending in absence of AFB (-0.081, middle cell of first column) and again find that AFB has a significantly larger effect on conservatism than relationship lending ($p < 0.01$).

Affiliated versus Unaffiliated Bankers on Board

As discussed earlier, the affiliation of the banker on board is also a necessary condition for reduced conservatism. That is, bankers on board will monitor lender interests only when they have a stake in the borrowing firm. In Section II, we note that a large proportion of bankers on board are *unaffiliated*. Unaffiliated bankers on board represent banks that do not have a concurrent lending relationship with the firm (Kroszner and Strahan 2001). Ostensibly, unaffiliated bankers are on boards primarily because their financial expertise is valued by firms (Güner et al. 2008). Serving on boards, in turn, improves the bankers' knowledge and experience in addition to increased networking and influence (Mizruchi 1996). Thus, unaffiliated bankers on board are not expected to have a material influence on firms' relationship with their lenders. If it is the lending relationship that drives the lower demand for monitoring through conservative accounting (as we hypothesize), then we do not expect unaffiliated bankers to have a similar negative association with conservatism. This leads us to the following hypothesis:

H_{4A}: *The presence of banker on board will reduce conservative accounting only if such a banker is affiliated, i.e., has a lending stake in the borrowing firm.*

Accordingly, in this section we examine the effect of *unaffiliated* bankers on conservative accounting and compare that with the effect of *affiliated* bankers on board. We predict the following: (1) unaffiliated bankers on board will not have a significant effect on conservative accounting, i.e., the extent of conservatism for such firms will be no different than that of firms with no bankers on board; and (2) firms with affiliated bankers on board (AFB) will have significantly less conservative accounting than those with unaffiliated bankers on board. To test these predictions, we augment model (2) by allowing the asymmetric timeliness of earnings to vary between firms that have affiliated bankers on their board (*AFB*), unaffiliated bankers on their board (*Unaffiliated banker*), and no bankers on their board. In order to isolate the impact of

unaffiliated bankers on boards we drop firm-year observations that have both affiliated and unaffiliated bankers on their board. This results in the following regression model:

$$Earnings = \alpha_0+\beta_1 DR + \beta_2 AFB + \beta_3 Unaffiliated\ banker + \beta_4 DR\times AFB + \beta_5 DR\times Unaffiliated\ banker + \beta_6 Ret + \beta_7\ DR\times Ret + \beta_8 Ret\times AFB+ \beta_9 Ret\times Unaffiliated\ banker + \beta_{10}\ DR\times Ret\times AFB + \beta_{11}\ DR\times Ret\times Unaffiliated\ banker + \varepsilon \quad (6)$$

Table 6 reports the asymmetric timeliness of earnings for firms that have affiliated bankers, unaffiliated bankers, and no bankers on their board using the results of estimating model (5). Consistent with our previous findings, the table shows that firms with affiliated bankers on their board have less conservative accounting than firms that have no bankers on their board (-0.157) and that this difference is significant at $p < 0.01$. [36] In contrast, firms with unaffiliated bankers on board have a positive and significant asymmetric loss recognition coefficient (0.266, $p < 0.01$). Formal tests of the differences indicate the following. First, firms with unaffiliated bankers on board are no different than firms without any bankers on board in their asymmetric loss recognition. Second, firms with unaffiliated bankers on board have a significantly higher asymmetric loss recognition coefficient than firms with AFBs. The contrast between affiliated and unaffiliated bankers on board lends support to our hypothesis that the reduced conservatism arises through the lower monitoring demand from lenders because of the affiliation of the banker on board.

AFB and the Debt-Contracting Demand for Conservatism

Our hypothesis also proposes that the negative AFB-conservatism link arises because monitoring through AFB is an alternative to conventional monitoring through debt covenants of which conservative accounting is an integral part. If this is the case, we should observe that AFB firms have a lower demand for monitoring through debt covenants. Prior literature has inferred

[36] In Panel B of Table 2 the non-AFB firms include unaffiliated-banker-on-board firms and no-banker firms, while in Table 6 we separate these two groups and formally test the difference across the three groups: no-banker firms, AFB firms, and unaffiliated-banker-on-board firms.

debt-contracting demand for conservatism by documenting that firms relying more heavily on debt covenants use more conservative accounting (Nikolaev 2010), which suggests that conservatism is important for the effective monitoring through debt covenants. If the lower level of conservatism in AFB firms is from lower monitoring demand for conservatism-facilitated debt contracting, then firms with AFB should rely less on the effectiveness with which debt covenants protect lender interests. Therefore, to the extent that conservative accounting exists to enhance covenant effectiveness, we expect AFB firms to use less covenants and also display a weaker association between conservatism and debt covenants. Accordingly, we hypothesize the following:

H_{5A}: *Monitoring through debt covenants should be less extensively used in AFB firms than in non-AFB firms.*

H_{6A}: *The positive association between the use of covenants and conservative accounting should be less pronounced in AFB firms than in non-AFB firms.*

We start with an analysis on how AFB is related to the use of covenants in debt contracts. We measure the use of debt covenants following Bradley and Roberts (2004). Specifically, we define covenant intensity of a bank loan contract as the sum of six dummy variables representing the existence of a debt issuance sweep covenant, an equity issuance sweep covenant, an asset sale sweep covenant, a dividend covenant, at least two financial covenants, and a secured covenant. [37] This measure ranges from zero (the least restrictive) to six (the most restrictive). We define a firm-year to have high (low) use of debt covenants if its covenant intensity score is in the top (bottom) tercile.

[37] All covenants are at the package level except the secured covenant which is at the facility level. We define a loan package to have the secured covenant as long as one of the facilities has the secured covenant. Since all covenants are now at the package level and firms may have multiple packages we aggregate the package data to the firm-level. This implies that if any of the packages has a particular covenant type, the dummy variable for that type of covenant is coded as being equal to one for that firm in that year.

Panel A of Table 7 presents descriptive statistics on the use of debt covenants. We report that 2,139 firm-years fall into the low covenant tercile, with no covenant or only one covenant (out of six) used. In contrast, 1,957 firm-years are in the high covenant tercile, having between four to six covenants in their loan contracts. In Panel B of Table 7 we test whether the variation in the covenant usage is a function of having AFB. We document that for firm-years without AFB, 51% have low covenant usage and 49% have high covenant usage. However, for firm-years with AFB, 79% have low covenant usage and only 21% have high covenant usage; a χ^2 test suggests that these two frequencies are significantly different from the expected level ($p < 0.01$). This result is particularly salient given that AFB firms usually have higher leverage (Table 4 Panel A), which would normally predict higher covenant usage.[38] The lower usage of covenants by AFB firms provides corroborating evidence that the lower conservatism for such firms is associated with lower debt-contracting demand.

Next we formally test how the relation between conservatism and debt covenants changes with the presence of affiliated bankers. Specifically, we conjecture that the positive relation between debt covenant intensity and conservatism should be weaker for firms with AFB. To test this conjecture, we add the covenant variable to model (2) and estimate the following regression:

$$\begin{aligned} Earnings = {} & \alpha_0 + \beta_1 DR + \beta_2 AFB + \beta_3 High\ covenants + \beta_4 DR \times AFB + \beta_5 DR \times High\ covenants + \beta_6 Ret + \beta_7 \\ & DR \times Ret + \beta_8 Ret \times AFB + \beta_9 Ret \times High\ covenants + \beta_{10}\, DR \times Ret \times AFB + \beta_{11}\, DR \times Ret \times High\ covenants + \\ & \beta_{12}\, DR \times Ret \times High\ covenants \times AFB + \varepsilon \end{aligned} \quad (6)$$

For ease of interpretation, in Panel C of Table 7, we report reconstructed coefficients from the above regression in a 2×2 table representing the AFB and covenant-intensity dimensions. The last row of Table 7 Panel C reports asymmetric timeliness coefficients partitioned based only on

[38] Using *DealScan*/*Compustat* merged data, we find a positive and significant correlation (0.07) between leverage and the use of covenants for all firms.

the affiliated banker dimension, which is a replication of our main analysis in Table 2.[39] The last column, on the other hand, presents asymmetric timeliness coefficient partitioned only on High/Low covenants, which is a replication of Nikolaev (2010). We find that firms with high use of covenants exhibit higher levels of conservatism than firms with low use of covenants (0.196 vs. 0.120), and the difference is again significant (0.076, $p < 0.05$). This is consistent with the finding in Nikolaev (2010) that conservatism improves the effectiveness of debt covenants in protecting lender interests.[40]

The three top (left) rows (columns) in Table 7 Panel C present the asymmetric timeliness coefficients based on the two-way partition and the corresponding differences. The first column reports the partition by High/Low use of covenants for the non-AFB firms. We observe that for these firms, high covenant usage is associated with a higher asymmetric loss coefficient (0.200) than low covenant usage (0.122) and the difference of 0.077 is significant at $p < 0.05$. The third column presents the same partition for AFB firms. Interestingly, for these firms there is no evidence of significant asymmetric loss recognition for either the low or the high covenant intensity partitions, and the difference between these partitions is also not significant. The difference-in-difference coefficient (-0.098) is both economically and statistically significant, suggesting that the normal positive relation between covenant intensity and conservatism reported by Nikolaev (2010) is absent in the AFB firms. These results indicate that for AFB firms, the use of conservatism in accounting is no longer responsive to the use of debt covenants, ostensibly because such firms are less reliant on the effectiveness of the covenants for monitoring purpose.

[39] This partition repeats the estimation of model (2) on a smaller sample that excludes the middle tercile of the covenant index following our definition of the high and low covenant dummy variable. The sample difference causes some negligible differences between the coefficients in Table 7 Panel C and those in Table 2 Panel C.

[40] We note that while Nikolaev (2010) uses bond covenants, we use bank loan covenants because we study bankers on board and bank loans are directly tied to bankers' incentives. Our finding of a positive association between conservatism and loan covenants complements Nikolaev (2010).

Overall, our evidence suggests that the lower level of conservatism in AFB firms is accompanied by lower use of debt covenants. More interestingly, the previously documented positive association between conservatism and debt covenants vanishes for the AFB firms. These results are consistent with AFB reducing lenders' monitoring demand for *conservatism facilitated debt contracting*, as we hypothesize.

VI. CONCLUSION

This study examines how affiliated bankers on corporate boards influence the use of conservative accounting. We document that firms that have affiliated bankers on board use less conservative accounting. This result is robust to adding firm fixed-effect and alternative measures of conservative accounting. Moreover, this result is robust to controlling for an extensive list of confounding factors. In particular, 2SLS regressions and a change analysis suggest that the lower level of conservatism for AFB firms is unlikely to be caused by endogeneity. Additional analyses suggest that (1) board representation has a distinct and stronger effect on conservatism than relationship lending; (2) affiliation with lenders is necessary for the lower level of conservatism in AFB firms, (3) the lower level of conservatism in AFB is at least partially caused by a lower monitoring demand through conservatism-facilitated debt contracting.

Our study is the first to examine the influence of affiliated bankers on board on financial reporting. By doing so we contribute to the literature that examines the influence of corporate governance on financial reporting. Prior research has examined how shareholder-oriented governance mechanisms such as board and ownership structure influence the use of conservative accounting (Ahmed and Duellman 2007, 2011; LaFond and Roychowdhury 2008; Ettredge et al. 2012). Given the central role of debt contracting in the conservatism literature, it is important to

understand how conservatism relates to debtholder-oriented governance mechanisms. Moreover, by studying the ramifications of lender participation in management through board representation, our paper attests to the multi-dimensional nature of corporate governance and the complicated tradeoffs firms make in their financial disclosures.

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TABLE 1
Variable Definitions

Variable	Definition	Source
AFB	Equals one when a firm has an affiliated banker on the board, and zero otherwise.	BoardEx, DealScan
Unaffiliated banker	Equals one when a firm has an unaffiliated banker on the board, and zero otherwise.	BoardEx, DealScan
Earnings	Earnings before extraordinary items scaled by market value of equity at the beginning of the fiscal year.	Compustat, CRSP
Ret	12-month buy-and-hold return over the fiscal year.	CRSP
DR	Equals one when *Ret* is negative, and zero otherwise.	CRSP
Accruals	Earnings before extraordinary items minus operating cash flow, scaled by average total assets.	Compustat
ΔCF	Annual change in operating cash flow scaled by average total assets.	Compustat
DCF	Equals one when *ΔCF* is negative, and zero otherwise.	Compustat
Market-to-book	Market value of equity scaled by book value of equity.	Compustat CRSP
Leverage	Sum of long-term debt and the current portion of long-term debt scaled by total assets.	Compustat
Litigation risk	Probability of litigation from Rogers and Stocken (2005).	Compustat, CRSP
Stock return volatility	Standard deviation of monthly stock returns over the prior 3 years.	CRSP
Stock return volatility^2	Square of *Stock return volatility*.	
Log(assets)	Logarithmic transformation of total assets.	Compustat
PP&E	Property, Plant & Equipment scaled by total assets.	Compustat
Commercial credit rating	Equals one when a firm has a commercial credit rating, and zero otherwise.	Compustat
Short-term debt	Short-term debt scaled by total debt.	Compustat
Bankruptcy risk	Probability that a firm will go bankrupt from Shumway (2001).	Compustat, CRSP
Board independence	Number of outside directors scaled by total number of directors.	Corporate Library
Log(board size)	Logarithmic transformation of number of directors.	Corporate Library
CEO/Chair separated	Equals one when the CEO is not the chairman of the board, and zero otherwise.	Corporate Library
Average outside directorships	Total outside directorships held by the board scaled by the number of directors.	Corporate Library
Inside director ownership	Common shares held by inside directors scaled by total common shares outstanding.	Corporate Library
Outside director ownership	Common shares held by outside directors scaled by total common shares outstanding.	Corporate Library
Institutional ownership	Common shared held by institutional investors scaled by total common shares outstanding.	Thomson Reuters
G-Score	Governance index from Gompers et al. (2003).	Risk Metrics
Importance industry to primary lender	Fraction of loans issued by a firm's primary lender in the firm's industry during the past 5 years, excluding the loans issued to the focal firm. We designate lenders as being primary lenders when they hold the largest fraction of a firm's private debt outstanding at the end of the fiscal year.	DealScan
Primary lender within 50 mile radius	An indicator variable equal to one when the primary lender's headquarter is within a 50 mile radius of the firm's headquarter, and zero otherwise.	DealScan
Number of commercial banks within 50 mile radius	The number of commercial banks that have a headquarters within a 50 mile radius of the firm's headquarter. Commercial banks are those with first three digit SIC code being 602 in Compustat.	Compustat

TABLE 2
Affiliated Bankers on Board and Conservative Accounting

Panel A: Descriptive Statistics on Measures used for Basu (1997) Model – AFB Firms versus Non-AFB Firms

	AFB Firms (N=311)			Non-AFB Firms (N=6,170)			Difference	
Variable	**Mean**	**Median**	**Std. Dev.**	**Mean**	**Median**	**Std. Dev.**	**Mean**	**Median**
Earnings	0.056	0.060	0.116	0.037	0.051	0.111	0.019***	0.009***
DR	0.286	0.000	0.453	0.349	0.000	0.477	-0.063**	0.000**
Ret	0.180	0.144	0.396	0.173	0.115	0.505	0.007	0.029

Panel B: Main Regression Results

$$Earnings = \alpha_0 + \beta_1 DR + \beta_2 AFB + \beta_3 DR \times AFB + \beta_4 Ret + \beta_5 Ret \times DR + \beta_6 Ret \times AFB + \beta_7 Ret \times DR \times AFB + \varepsilon$$

α_0	β_1	β_2	β_3	β_4	β_5	β_6	β_7	*Adjusted* R^2	*N*
0.053	0.004	-0.001	0.003	0.013	0.173	0.048	-0.163	0.156	6,416
(0.000)	(0.156)	(0.903)	(0.708)	(0.009)	(0.000)	(0.003)	(0.000)		

Panel C: Accounting Conservatism – AFB versus non-AFB Firms

	(1)	**(2)**	**(3)**	**(4)**
	Bad news	**Good news**	**Conservatism**	**Conservatism**
Conservatism	***DR=1***	***DR=0***	**(1) – (2)**	**(1)/(2)**
AFB	$\beta_4+\beta_5+\beta_6+\beta_7$	$\beta_4+\beta_6$	$\beta_5+\beta_7$	$(\beta_4+\beta_5+\beta_6+\beta_7)/(\beta_4+\beta_6)$
Estimate	0.071	0.061	0.010	1.169
p-value	(0.017)	(0.000)	(0.746)	(0.754)
No AFB	$\beta_4+\beta_5$	β_4	β_5	$(\beta_4+\beta_5)/(\beta_4)$
Estimate	0.186	0.013	0.173	14.740
p-value	(0.000)	(0.009)	(0.000)	(0.019)
AFB – No AFB				
Estimate	-0.115	0.048	-0.163	-13.571
p-value	(0.000)	(0.003)	(0.000)	(0.021)

This table presents our main results of the relation between AFB and conservatism. Panel A provides descriptive statistics on the measures used for estimating the Basu (1997) model separately for AFB firms and non-AFB firms. Two-sample *t*-tests are used to test the differences in means, and Wilcoxon two-sample tests are used to test differences in medians. *,**, and *** indicate two-tailed statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel B presents the results of our main analysis on the relation between AFB and accounting conservatism. We estimate our model after dropping the top 1% of absolute standardized residuals. In addition, to control for residual dependence in our pooled time-series cross-sectional regression, we cluster standard errors at the firm level (two-tailed *p*-values are presented in parentheses).

Panel C presents reconstructed coefficients from Panel B to further examine the influence of AFB on conservative accounting. We use the delta method to compute the standard errors of the conservatism measure presented in column (4).

TABLE 3
Alternative Methods for Measuring the Asymmetric Timeliness of Earnings

Panel A: Adding Firm-Fixed Effects to Basu (1997) Specification

$$Earnings = \alpha_0 + \beta_1 DR + \beta_2 AFB + \beta_3 DR \times AFB + \beta_4 Ret + \beta_5 Ret \times DR + \beta_6 Ret \times AFB + \beta_7 Ret \times DR \times AFB + Firm\ fixed\ effect + \varepsilon$$

α_0	β_1	β_2	β_3	β_4	β_5	β_6	β_7	*Adjusted* R^2	*N*
0.045	-0.001	-0.015	0.004	0.019	0.062	0.053	-0.084	0.494	6,416
(0.000)	(0.710)	(0.026)	(0.700)	(0.003)	(0.000)	(0.001)	(0.062)		

Panel B: Ball and Shivakumar (2006) Specification

$$Accruals = \alpha_0 + \beta_1 DCF + \beta_2 AFB + \beta_3 DCF \times AFB + \beta_4 \Delta CF + \beta_5\, DCF \times \Delta CF + \beta_6 \Delta CF \times AFB + \beta_7\, DCF \times \Delta CF \times AFB + \varepsilon$$

α_0	β_1	β_2	β_3	β_4	β_5	β_6	β_7	*Adjusted* R^2	*N*
-0.051	0.009	0.003	-0.020	-0.423	0.243	-0.013	-0.667	0.172	6,416
(0.000)	(0.000)	(0.554)	(0.007)	(0.000)	(0.000)	(0.866)	(0.023)		

This table presents the results of robustness analyses to ensure that our results are not driven by the bias in firm-level cross-sectional estimates of the asymmetric timeliness coefficient in the Basu (1997) specification. All measures are as defined in Table 1.

Panel A presents the results of adding firm-fixed effects to the Basu (1997) specification as suggested by Ball et al. (2011). Panel B presents the results of using the regression specification from Ball and Shivakumar (2006). As in our previous analyses β_7 captures the asymmetric timeliness of earnings. We estimate these models after dropping the top 1% of absolute standardized residuals. In addition, to control for residual dependence in our pooled time-series cross-sectional regression, we cluster standard errors at the firm level (two-tailed *p*-values are presented in parentheses).

TABLE 4
Controlling for Confounding Effects

Panel A: Descriptive Statistics on Additional Measures Included in Additional Analyses

	AFB Firms			Non-AFB Firms			Difference	
Variable	**Mean**	**Median**	**Std. Dev.**	**Mean**	**Median**	**Std. Dev.**	**Mean**	**Median**
Market-to-book	3.441	2.283	4.595	4.689	2.381	72.473	-1.248	-0.098
Leverage	0.266	0.262	0.137	0.225	0.225	0.161	0.041***	0.037***
Litigation risk	0.011	0.008	0.012	0.012	0.007	0.020	-0.001	0.001
Stock return volatility	0.096	0.088	0.045	0.119	0.105	0.059	-0.023***	-0.017***
Stock return volatility^2	0.011	0.008	0.015	0.018	0.011	0.020	-0.006***	-0.003***
Log(assets)	8.483	8.501	1.542	7.669	7.511	1.432	0.815***	0.991***
PP&E	0.420	0.431	0.213	0.296	0.232	0.220	0.124***	0.198***
Commercial credit rating	0.325	0.000	0.469	0.114	0.000	0.318	0.210***	0.000***
Short-term debt	0.061	0.035	0.072	0.055	0.020	0.087	0.006	0.015***
Bankruptcy risk	0.002	0.001	0.007	0.002	0.001	0.009	-0.001	0.000
Board independence	0.712	0.750	0.154	0.678	0.692	0.149	0.034***	0.058***
Log(board size)	2.476	2.398	0.292	2.370	2.303	0.342	0.106***	0.095***
CEO/Chair separated	0.891	1.000	0.313	0.924	1.000	0.266	-0.033**	0.000**
Average outside directorships	1.429	1.235	0.839	1.206	1.000	0.850	0.223***	0.235***
Inside director ownership	0.030	0.004	0.057	0.052	0.009	0.118	-0.022***	-0.005***
Outside director ownership	0.009	0.001	0.033	0.009	0.001	0.050	0.000	-0.001***
Institutional ownership	0.681	0.699	0.156	0.752	0.767	0.195	-0.071***	-0.068***
G-Score	10.122	10.000	2.269	9.381	9.000	2.554	0.741***	1.000***

Panel B: First-Stage Regressions

	(1)	(2)	(3)
	First-Stage	First-Stage 2SLS	First-Stage 2SLS
Explanatory Variable	**Adding Controls**	**Instruments only**	**Instruments and Controls**
Intercept	-20.436	-3.194	-22.179
	(0.000)	(0.000)	(0.000)
Market-to-book	-0.006		-0.001
	(0.701)		(0.860)
Leverage	-1.155		-1.043
	(0.338)		(0.360)
Litigation Risk	-4.557		-5.119
	(0.473)		(0.439)
Stock return volatility	29.125		21.427
	(0.037)		(0.053)
Stock return volatility^2	-140.210		-88.563
	(0.045)		(0.096)
Log(assets)	0.354		0.397
	(0.002)		(0.000)
PP&E	2.789		3.104
	(0.000)		(0.000)
Commercial credit rating	0.947		1.052
	(0.008)		(0.003)
Short-term debt	-1.977		-1.543
	(0.191)		(0.286)

(continued on next page)

TABLE 4 (continued)

Bankruptcy risk	-5.614		-3.507
	(0.798)		(0.865)
Board independence	-0.530		-0.541
	(0.619)		(0.590)
Log(board size)	-0.067		0.051
	(0.867)		(0.906)
CEO/Chair separated	-0.125		-0.074
	(0.492)		(0.683)
Average outside directorships	-0.046		-0.021
	(0.728)		(0.881)
Inside director ownership	-3.079		-2.762
	(0.075)		(0.090)
Outside director ownership	1.393		1.434
	(0.070)		(0.073)
Institutional ownership	-1.543		-1.080
	(0.055)		(0.146)
G-Score	0.085		0.069
	(0.120)		(0.203)
Importance industry to primary lender		1.901	0.730
		(0.000)	(0.367)
Primary lender within 50 mile radius		0.992	1.130
		(0.000)	(0.000)
Number of commercial banks within 50 mile radius		-0.115	-0.082
		(0.002)	(0.035)
Industry indicators	Yes	No	Yes
Number of obs.	6,416	6,416	6,416
AUC	0.86	0.70	0.87
Test AUC=0.50			
Z-statistic	45.52	13.38	48.49
p-value	0.000	0.000	0.000
Test AUC model 1 = AUC model 3			
χ^2-statistic = 3.34			
p-value = 0.067			

Panel C: Asymmetric-Timeliness Regressions Controlling for Confounding Effects

Variables	**(1) Adding Controls in Two-stage**	**(2) Propensity Score Matching**	**(3) 2SLS Model (1) Predicted Value from Instrument**	**(4) 2SLS Model (2) Residual of Predicted Value**	**(5) Change Analysis [t-2,t) (t,t+2]**
Intercept	0.054	0.053	0.053	0.053	0.063
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
DR	0.004	0.009	0.006	0.004	0.021
	(0.132)	(0.129)	(0.055)	(0.156)	(0.122)
AFB	0.013	-0.000	0.014	0.013	-0.016
	(0.005)	(0.953)	(0.005)	(0.009)	(0.030)
DR×AFB	-0.000	-0.001	0.002	-0.001	-0.012
	(0.871)	(0.903)	(0.171)	(0.903)	(0.508)

(continued on next page)

TABLE 4 (continued)

Ret	0.001	0.040	-0.002	0.003	0.042
	(0.743)	(0.000)	(0.410)	(0.708)	(0.006)
Ret×DR	0.170	0.126	0.173	0.173	0.172
	(0.000)	(0.000)	(0.000)	(0.000)	(0.005)
Ret×AFB	0.004	0.021	0.004	0.048	0.039
	(0.237)	(0.216)	(0.468)	(0.003)	(0.171)
Ret×DR×AFB	-0.021	-0.116	-0.033	-0.163	-0.246
	(0.011)	(0.013)	(0.044)	(0.000)	(0.004)
Adjusted R^2	0.153	0.188	0.159	0.156	0.231
N	6,416	1,089	6,416	6,416	209

This table presents the results of controlling for confounding effects. All measures are as defined in Table 1. Panel A provides descriptive statistics on the control variables used in the analyses, separately for AFB firms and non-AFB firms. Two-sample t-tests are used to test the differences in means, and Wilcoxon two-sample tests are used to test differences in medians. *,**, and *** indicate two-tailed statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel B presents the results of first-stage logit regressions that are used in Panel C. Column (1) presents the results of regressing AFB on the control variables (descriptive statistics of these variables are presented in Panel A). The residual from this model is used in column (1) of Panel C, and the predicted value of this model is the propensities that are used for column (2) of Panel C. Column (2) presents the results of regressing AFB on three instruments, *Importance industry to primary lender*, *Primary lender within 50 mile radius*, *and Number of commercial banks within 50 mile radius*. The predicted value from this regression is used in the second stage regression presented in column (3) of Panel C. Column (3) presents the results of regressing AFB on three instruments and control variables. The marginal effect of the three instruments on AFB from this regression is used in the second stage regression presented in column (4) of Panel C (footnote 28 explains the calculation of the marginal effect). The last four rows present the goodness-of-fit statistics of our models. For our logistic models, we use ROC (receiver operating characteristic) curve analysis to measure the discrimination (accuracy) of the logistic regression at classifying firms as having AFB or not (Hosmer and Lemeshow 2000, p.160-164). A greater area under the ROC curve (AUC) indicates better predicative ability of the model—Hosmer and Lemeshow classify anything above 0.7 as an "acceptable" level of discrimination. We test whether the AUC is statistically different from chance of 0.50 using the *Z*-statistic which is equal to (AUC-0.50)/((standard error (AUC)) (see Zhou et al. 2002). See Table 1 for variable definitions. The models are estimated after dropping the top 1% of absolute standardized residuals. In addition, *Z*-statistics are computed using firm-level cluster robust standard errors (two-tailed *p*-values are presented in parentheses).

Panel C presents the results of variations to the Basu model that address the concern that our results are influenced by confounding effects. Column (1) presents the results of estimating a model for which we replace *AFB* with the standardized residual probability from a first-stage logit regression in which we regress *AFB* on the control variables presented in Panel A (see Panel B column (1) for regression results). Column (2) presents the results of estimating model (2) for a sample matched based on propensity scores derived from the same first-stage logit regression used for column (1). Specifically, we match each AFB firm to three non-AFB firms and require matches to have a maximum caliper difference of 0.01. Column (3) presents the results of the second stage of a 2SLS for which we replaced *AFB* in Model (2) with the standardized predicted probability from a first-stage logit regression of *AFB* on the instrumental variables (see Panel B column (2) for first-stage estimation results). Column (4) presents the results of the second stage of a 2SLS for which we replaced *AFB* in Model (2) with the standardized marginal effect of instruments on AFB after controlling for firm and board characteristics (see Panel B column (3) for estimation results). Column (5) presents the results of a change analysis based on a reduced sample for which we have sufficient data two years before and two years after an AFB relationship was initiated. We estimate these models after dropping the top 1% of absolute standardized residuals. In addition, to control for residual dependence in our pooled time-series cross-sectional regression, we cluster standard errors at the firm level (two-tailed *p*-values are presented in parentheses).

TABLE 5
AFB versus Relationship Lending

Panel A: Descriptive Statistics on Lending Relationship in Past Five Years

Measures	N	Mean	Std. Dev.	Q1	Median	Q3
Number of loans	675	5.806	2.021	4.000	5.000	7.000
Relative frequency of loans	675	0.956	0.072	0.889	1.000	1.000
Relative amount of loans	675	0.979	0.041	0.981	1.000	1.000

Panel B: Conservatism and AFB versus Relationship Lending

$$Earnings = \alpha_0+\beta_1 DR+ \beta_2 AFB +\beta_3 Relationship\ lending +\beta_4 DR\times AFB+ \beta_5 DR\times Relationship\ lending +\beta_6 Ret + \beta_7 DR\times Ret+ \beta_8 Ret\times AFB + \beta_9 Ret\times Unaffiliated\ banker + \beta_{10}\ DR\times Ret\times AFB+ \beta_{11}\ DR\times Ret\times Relationship\ lending + \varepsilon$$

Conservatism	No AFB	Δ AFB	AFB	All
No Relationship	0.177	-0.180	-0.003	0.175
	(0.000)	(0.000)	(0.924)	(0.000)
Δ Relationship	-0.081	**0.098**	0.017	-0.081
	(0.031)	**(0.037)**	(0.727)	(0.026)
Relationship	0.096	-0.082	0.014	0.094
	(0.005)	(0.064)	(0.765)	(0.005)
All	0.170	-0.160	0.010	
	(0.000)	(0.000)	(0.746)	

This table examines the effect of relationship lending and AFB on conservatism. Panel A provides descriptive statistics on the three measures we use to determine whether a firm has a high level of relationship lending for the firms that were classified as having a high level of relationship lending (*Relationship lending* equals one). *Number of loans* equals the number of private loans issued to a firm in the prior five years for which the firm's relationship bank was retained as a lead bank. We classify a bank as lead bank if lead arranger credit is 'Yes", or the bank is coded as either "agent", "administrative agent", "arranger" or "lead bank" in *DealScan*. *Relative frequency of loans* equals *Number of loans* scaled by the number of private loans issued to a firm in the prior five years. *Relative amount of loans* equals the loan amount corresponding to *Number of loans* scaled by the total amount of the private loans issued to a firm in the prior five years. Whenever multiple lenders are designated as relationship banks we take the maximum of each measure across all relationship banks. *Relationship lending* equals one when the values of all three relationship lending measures (i.e., *Relative frequency of loans*, *Number of loans* and *Relative amount of loans*) are in the fourth quartile of the sample, and zero otherwise. All other measures are as defined in Table 1.

Panel B reports the reconstructed asymmetric timeliness coefficients from a regression that examines the effect of relationship lending and AFB on conservatism. Models are estimated after dropping the top 1% of absolute studentized residuals. In addition, to control for residual dependence in our pooled time-series cross-sectional regression, we cluster standard errors at the firm level (two-tailed *p*-values are presented in parentheses).

TABLE 6
Affiliated versus Unaffiliated Bankers

$$Earnings = \alpha_0+\beta_1 DR+ \beta_2 AFB +\beta_3 Unaffiliated\ banker +\beta_4 DR\times AFB+ \beta_5 DR\times Unaffiliated\ banker+\beta_6 Ret + \beta_7\ DR \times Ret+ \beta_8 Ret\times AFB+ \beta_9 Ret\times Unaffiliated\ banker + \beta_{10}\ DR\times\ Ret \times AFB+ \beta_{11}\ DR \times Ret \times Unaffiliated\ banker + \varepsilon$$

Group of Firms	Coefficients	Conservatism
No banker	β_7	0.170 (0.000)
AFB	$\beta_7 + \beta_{10}$	0.013 (0.699)
Unaffiliated banker	$\beta_7 + \beta_{11}$	0.266 (0.000)
AFB - No banker	β_{10}	-0.157 (0.000)
Unaffiliated banker - No banker	β_{11}	0.096 (0.195)
Unaffiliated banker - AFB	$\beta_{11} - \beta_{10}$	0.253 (0.002)

This table examines whether the association between AFB and conservatism is more pronounced than the association between unaffiliated bankers on board and conservatism. The model is estimated after dropping firms that concurrently have affiliated and unaffiliated banker on board. We also drop the top 1% of absolute studentized residuals. In addition, to control for residual dependence in our pooled time-series cross-sectional regression, we cluster standard errors at the firm level (two-tailed *p*-values are presented in parentheses).

TABLE 7
AFB and the Debt-contracting Demand for Conservatism

Panel A: Descriptive Statistics of Debt Covenants

Covenant intensity	Observations	Mean	Minimum	Maximum
Low covenants	2,139	0.452	0	1
High covenants	1,957	5.247	4	6

Panel B: AFB and the use of Debt Covenants

Covenant intensity	No AFB	AFB
Low covenants	1,982	157
	(50.86%)	(78.89%)
High covenants	1,915	42
	(49.14%)	(21.11%)
Test Statistic	$\chi^2 = 59.640$	p-value = 0.000

Panel C: AFB and the Conservatism-covenants Link

$$Earnings = \alpha_0 + \beta_1 DR + \beta 2 AFB + \beta_3 High\ covenants + \beta_4 DR \times AFB + \beta_5 DR \times High\ covenants + \beta_6 Ret + \beta_7 DR \times Ret + \beta_8 Ret \times AFB + \beta_9 Ret \times High\ covenants + \beta_{10} DR \times Ret \times AFB + \beta_{11} DR \times Ret \times High\ covenants + \beta_{12} DR \times Ret \times High\ covenants \times AFB + \varepsilon$$

Conservatism	No AFB	Δ AFB	AFB	All
Low covenants	0.122	-0.099	0.023	0.120
	(0.000)	(0.076)	(0.664)	(0.000)
Δ Covenants	0.077	**-0.098**	-0.021	0.076
	(0.038)	**(0.014)**	(0.624)	(0.040)
High covenants	0.200	-0.197	0.003	0.196
	(0.000)	(0.000)	(0.955)	(0.000)
All	0.160	-0.149	0.011	
	(0.000)	(0.003)	(0.812)	

This table examines whether the use of covenants and the positive relation between covenants and conservatism vary with the presence of AFB. Panel A presents descriptive statistics of a covenant index that is defined as the sum of six covenant indicators: collateral, dividend restriction, more than two financial covenants, asset sales sweep, equity issuance sweep, and debt issuance sweep. Firm year observations are classified as High (Low) covenants if their covenant index score is in the top (bottom) tercile.

Panel B provides a frequency distribution of High and Low covenants firms based on whether firms have an AFB. Two-tailed *p*-value is computed using a χ^2-test.

Panel C presents reconstructed asymmetric timeliness coefficients from a regression model that examines whether AFB affects the relation between conservatism and the use of covenants. Models are estimated after dropping the middle tercile of covenant index scores and after dropping the top 1% of absolute studentized residuals. In addition, to control for residual dependence in our pooled time-series cross-sectional regression, we cluster standard errors at the firm level (two-tailed *p*-values are presented in parentheses).