CONDITIONAL CONSERVATISM, AGENCY COSTS, AND THE CONTRACTUAL FEATURES OF DEBT

by

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TABLE OF CONTENTS

ABSTRACT

In this paper, I examine the effects of debt structure on conservatism. The analysis is conducted in two steps. First, I examine the direction of causality between capital structure and conditional conservatism by using a unique sample of zero leverage firms that transition to non-zero leverage. Also I investigate whether off-balance-sheet leverage incrementally explains conditional conservatism. Second, I study whether the various characteristics of debt also affect conditional conservatism. Specifically, the characteristics I investigate include: (1) whether the debt is public or private, (2) maturity, (3) convertibility, (4) seniority, and (5) securitization. Since these different characteristics of debt affect agency costs to varying degrees, I predict that differences in the type of debt will lead to cross-sectional differences in conditional conservatism. I find that entering the debt market is an important factor driving demand for conditional conservatism, and that off-balance-sheet leverage incrementally increases conditional conservatism relative to on-balance-sheet leverage. Consistent with my predictions, I find that firms with greater levels of public debt, short-term debt, subordinate debt, and unsecured debt provide more timely loss recognition. After controlling for the likelihood of conversion, I also find firms with a greater level of convertible debt provide less timely loss recognition. Overall my results indicate that accounting conservatism not only varies with the presence of debt, but also with the contractual features of debt.

1. INTRODUCTION

In this paper, I examine the positive association between conditional conservatism and leverage by investigating the direction of causality. More importantly I investigate whether the demand for conditional conservatism varies cross-sectionally in predictable ways based on the features of various forms of leverage. Specifically, I examine three research questions. First, does increased leverage cause an increase in future levels of conservatism? Second, does the presence of off-balance-sheet leverage affect levels of conditional conservatism? Finally, does the level of conditional conservatism vary based on the placement, maturity, convertibility, seniority, and securitization of debt?

Ball, Robin, and Sadka (2008) directly examine the relation between capital structure and conditional conservatism in an international setting and provide evidence that the debt market is an important source of demand for conditional conservatism. In the discussion of this paper, Monahan (2008) calls for more evidence on the relation between capital structure and conditional conservatism. He suggests that if the positive relation documented by Ball et al. (2008) is consistent with a contracting explanation (Watts 2003a), then this interpretation should also apply to the relation between conditional conservatism and other debt-instrument attributes. Consequently, the relevance of capital structure in explaining conditional conservatism can be ambiguous if we do not observe greater conditional conservatism for types of debt that have higher agency costs, which is also consistent with a contracting explanation.

Agency theory (Jensen and Meckling 1976; Myers 1977) holds that leverage generates agency conflicts between debt holders and shareholders because shareholders

in levered firms benefit when the firm undertakes actions that transfer wealth from bondholders to themselves. Further, the theory suggests that as leverage increases, so do the agency costs associated with debt.[1] Using a contracting framework, Watts (2003a) asserts that conservatism is an efficient contracting mechanism that reduces agency costs arising from contractual relationships between debt holders and shareholders as well as between outside stakeholders and managers. If this is the case, then conditional conservatism should vary cross-sectionally with the level of agency costs inherent in a given form of debt.

In debt contracting, lenders bear downside risk with no upside potential, yet face information asymmetry that is similar to what shareholders face. Consequently, lenders seek to offset downside risk by charging higher interest rates. Watts (2003a) argues that borrowers can use accounting conservatism to reduce the information asymmetry between shareholders and debt holders, and thus reduce the need for debt holders to charge a higher cost of debt. Because conservative financial reporting enables lenders to receive timelier signals of deteriorating financial performance, lenders are able to take action in a more-timely fashion, thereby reducing their downside risk. Thus, conservatism also benefits shareholders by lowering contracting costs inherent to arrangements between shareholders and debt holders (Ahmed et al. 2002; Zhang 2008).

If debt contracting is an important driving force creating demand for conditional conservatism and thus affects the supply of conditional conservatism, we should observe

[1] Jensen and Meckling (1976) suggest that there are three kinds of agency costs associated with debt: (1) the opportunity wealth loss caused by the impact of debt on the investment decisions of the firm, (2) the monitoring and bonding expenditures by the bondholders and the owner-manager, and (3) the costs associated with bankruptcy and reorganization.

that changes in capital structure lead to changes in conditional conservatism. Also, if debt holders demand timely loss recognition in order to prevent large transfers of wealth from debt holders to shareholders, firms with higher agency costs of debt (i.e., where such transfers of wealth are likely to be more feasible) should provide more timely accounting reports. This implies that firms' debt structures yield different levels of agency costs of debt and thus affect the level of demand for conditional conservatism.

The association between debt contracts on conditional conservatism (i.e., conditional conservatism is increasing in leverage) has strong empirical support (Ball and Shivakumar 2005; Khan and Watts 2009). However, in these studies, debt is assumed to be homogeneous despite the fact that debt financing comes in different forms and structures. When a firm borrows, it must decide not only the amount but also the type and features of the new debt. Differences in the characteristics of debt yield cross-sectional differences in agency costs, which should result in predictable variation in conditional conservatism. Hence, it is important to consider not only leverage itself, but also the types and features of debt when examining the relationship between debt contracts and conditional conservatism.

The results in this paper provide evidence on a causal relationship that changes in capital structure lead to changes in conditional conservatism. This suggests that the existence of debt is an important factor driving demand for conditional conservatism. Also, my study shows that additional increases in leverage resulting from capitalizing off-balance-sheet leverage incrementally explains cross-sectional variations in conditional conservatism. This is consistent with the argument that off-balance-sheet

obligations have debt-like characteristics and affect firms' financial leverage. Therefore, off-balance-sheet leverage should affect the demand for conditional conservatism.

My results also show that the contractual features of debt are important factors in explaining cross-sectional variation in conditional conservatism. Specifically, I find that firms with more public debt issue more conservative financial reports, consistent with higher demand for conservatism from debt holders who have less monitoring opportunities and limited access to private information. I also find that firms with more short-term debt exhibit greater conservatism. This is consistent with firms with short-term debt having a greater incentive to reduce refinancing risk by providing more conservative financial statements. In addition, senior debt leads to lower degrees of conditional conservatism. This result supports the notion that senior lenders are less sensitive to changes in firm value than junior debt holders and that they also have strong incentives to monitor and thus are less concerned about information contained in financial statements. Secured debt also leads to relatively lower degrees of conditional conservatism, since secured debt holders obtain information about the borrower's assets and assets-related risk from monitoring collateral which can subsume information provided by conditional conservatism. Inconsistent with my prediction that convertible debt is less sensitive to changes in asset volatility and bankruptcy costs and thus demand less conditional conservatism, I find that firms with a greater reliance on convertible debt provide more conditional conservatism. This result reverses in a sample of investment grade rated firms. This suggests that the convertible feature is well suited to control agency problems only when it has a possibility of being exercised.

My study contributes to the extant literature in several ways. First, this is the first study to establish that changes in debt cause changes in conditional conservatism. This provides evidence that the previously documented association between the debt market and conditional conservatism (Ball et al. 2008) is not spurious. Instead, entering the debt market appears to be a significant force in creating demand for conditional conservatism.

Second, this study extends the conservatism literature, which so far has only focused on on-balance-sheet leverage, by documenting that off-balance-sheet leverage incrementally increases asymmetric timely loss recognition. This relates to the literature on recognition versus disclosure in financial reporting, highlighting the importance of incorporating disclosed but not recognized items into determinants of earnings quality. Regardless of the differences of classification in the financial statement, obligations that have debt-like characteristics (Dhaliwal 1986; Ely 1995; Dhaliwal et al. 2009) affect the firm's financial risk and thus conditional conservatism.

Finally, prior research has not examined whether the characteristics of debt are important in explaining the level of conditional conservatism. If Watts (2003a) hypothesis that agency costs drive the demand for conditional conservatism is correct, then the level of conditional conservatism should be higher when debt characteristics suggest that agency problems are more severe. My study provides a deeper understanding of how the various characteristics of debt play different roles in creating demand for conditional conservatism in financial reporting. This evidence nicely complements Ball, Robin, and Sadka (2008) results that debt market size is positively associated with asymmetric timely loss recognition and thus debt holders are the primary source of

demand for timely accounting reports. In addition, Beatty et al. (2008, p.158) point out that “there are relatively few studies of factors expected to affect firm-level conservatism.” This paper fills this gap by providing evidence that different contractual features of debt act as additional determinants of conditional conservatism. The study of these determinants completes and reinforces the debt-contracting explanation for conservatism.

I organize the remainder of the paper as follows. In Section 2 I provide an overview of the prior literature and develop the hypotheses. In Section 3 I discuss the empirical research design and data. I present the main empirical results in Section 4. In Section 5 I report the results of sensitivity tests and summarize and conclude the paper in Section 6.

2. PRIOR LITERATURE AND HYPOTHESES DEVELOPMENT

2.1. Prior literature

Demand for conservatism

Basu (1997), Watts (2003a), and Ball and Shivakumar (2005) describe two important roles of conservatism. The first role is that conservative financial reporting imparts a downward bias in reported net worth so as to offset managers' tendencies to bias net worth upwards (unconditional conservatism). The second role is that conservative financial reporting commits managers to recognizing bad news in a timely manner (conditional conservatism). Because contracting parties are expected to contract around an accounting bias toward reporting low earnings and book values of stockholders equity, unconditional conservatism is unlikely to improve contracting efficiency through reductions in agency costs (Basu 1997; Ball and Shivakumar 2005).

Watts (2003a, 2003b) defines conservatism in accounting as the differential verifiability required for recognition of profits versus losses (asymmetric treatment of gains and losses). Prior studies advance a number of explanations for conservative reporting including contracting, shareholder litigation, taxation, and accounting regulations. While all of these explanations suggest that conservatism benefits users of accounting statements, the contracting explanation has been most extensively developed and is considered to be the most important factor. Watts (2003a, p.209) states that "under the *contracting explanation*, conservative accounting is a means of addressing moral hazard caused by parties to the firm having asymmetric information, asymmetric payoffs, limited horizons and limited liability." Contractual parties to the firm (e.g., shareholders

and debt holders) face agency problems such as asset substitution and underinvestment. [2] Conservatism has been hypothesized to increase the efficiency of debt contracts by mitigating these agency problems.

Guay (2008, p.177) states that "although all public U.S. firms follow GAAP, this does not imply that all firms supply the same degree of conservatism in their financial reporting." These cross-sectional differences in conditional conservatism arise from differences in demand from various contracting parties; who face varying levels of asymmetric information, asymmetric payoffs, and limited liability.

Lenders receive the entire face value of the debt at maturity when the firm's net assets are worth more than the face value of the debt. On the other hand, shareholders have residual claims against the firm and therefore receive the excess of net assets over the face value of debt. However, if a firm's net assets are worth less than the debt's face value, then lenders only receive the net assets, due to shareholders' limited liability (Plummer and Tse, 1999). Therefore, debt holders are likely to be more sensitive to a loss in net asset value than to a gain. These asymmetric payoffs combined with limited liability and asymmetric information provide the shareholders of the firm an opportunity to take actions that may reduce firm value, in an attempt to transfer wealth from lenders to shareholders (Myers 1977; Smith and Warner 1979). These value-reducing actions include underinvestment, asset substitution, dividend payments, and claim dilution

[2] The underinvestment problem occurs when shareholders underinvest capital by refusing to participate in low-risk projects. This is similar to the asset substitution problem, where shareholders exchange low-risk assets for high-risk ones. Both instances will increase shareholder value at the expense of debt holders. Since high-risk projects have large profits, the shareholders benefit from increased income, as the debt holders require only a fixed portion of cash flow. The problem occurs because debt holders are not compensated for the additional risk.

(issuance of additional debt). Given their informational disadvantage, lenders may not detect such opportunistic behavior or be able to contract it away and thereby may bear uncompensated risk. Ideally, lenders want assurances that the minimum amount of net assets will be greater than contracted principal and interest payments. With the timely reporting of negative changes in the value of net assets that is provided through conservative reporting, lenders can make better lending decisions and effectively monitor management's ability to distribute the assets of the firm.

In summary, there is a consensus in the existing literature that conservatism plays an important role in the efficient contracting process (Watts and Zimmerman 1986; Watts 2003a) by mitigating agency costs and concludes that contracting demands affect the supply of conservatism (Ball et al. 2000). As a result, variation in the agency costs of debt should also lead to variation in conservatism.

Accounting conservatism as a means of mitigating agency problems

Ahmed et al. (2002) investigate whether conservatism mitigates the conflicts between bondholders and stockholders over dividend policy. They use leverage as a proxy for conflicts in bondholder-shareholder dividend policy and find that leverage is significantly related to conservatism. They also find that firms with more conservative financial reporting experience a lower cost of debt. Zhang (2008) examines the efficiency gains from conditional conservatism in the debt contracting process and finds that conservatism benefits lenders ex-post by producing a timely signal of default risk in the form of accelerated covenant violations, and benefits borrowers ex ante through lower initial interest rates. Ahmed and Duellman (2007) argue that accounting conservatism

improves corporate governance, specifically in monitoring firms' investment policies. They find that firms with more conservative accounting have higher future cash flows and gross margins and lower likelihoods/magnitudes of special items charges, relative to firms with less conservative accounting, consistent with conservatism mitigating agency problems associated with managers' investment decisions (as predicted by Watts 2003). Moerman (2008) finds that firms with more timely loss recognition have lower bid-ask spreads in the trading of syndicated loans. She concludes that this finding is consistent with conservative reporting decreasing information asymmetry regarding the borrower and increasing the efficiency of trading in the secondary debt securities market. Another important stream of conservatism literature focuses on the relationship between conditional conservatism and debt covenants, and investigates whether conditional conservatism and debt covenants are substitutes or complements. Nikolaev (2006) argues that debt covenants are more valuable in constraining managerial opportunism if the accounting system generates timely signals of a firm's economic health, since it allows for more effective bonding against ex-post suboptimal actions. Beatty, Weber, and Yu (2008) find that debt contract modifications (or income escalators[3]) and conservatism are positively associated in a sample of syndicated loan agreements, suggesting that contractual modifications alone do not satisfy lenders' demands for conditional conservatism.

Capital structure and accounting conservatism

[3] Income escalators are systematic adjustments to net worth covenants that exclude a percentage of positive net income from covenant calculations (Beatty et al. 2008).

Although several papers (Ahmed et al. 2002; Bushman and Piotroski 2007; Khan and Watts 2009) examine accounting conservatism properties (such as the mitigation of agency problems, variation arising from legal and political institutions, and cross-sectional measures of conservatism), such studies do not focus on the relation between conservatism and firms' capital structures. However, they do report a positive association between leverage and conservatism. Ball, Robin and Sadka (2008) use an international setting to examine whether conservatism is driven by equity markets or by debt markets. They provide evidence that the debt market, and not the equity market, is associated with the timeliness of loss recognition, supporting the significant impact of debt markets on accounting practice. However, Monahan (2008) argues in his discussion of Ball et al. (2008) that the paper's conclusion that debt holders represent the primary source of demand for timely accounting reports[4] are premature because of problems in research design and the lack of evidence on debt-instrument attributes that is consistent with a debt contracting explanation (Watts 2003a), additional to the positive relation between debt market size and conditional conservatism.

In summary, these studies provide evidence that capital structure is relevant to the existence and pervasiveness of conservatism in accounting. Thus, cross-sectional variation in capital structure should lead to further variation in conservatism.

2.2. Hypotheses development

2.2.1. The effect of leverage on conditional conservatism

[4] Ball, Robin, and Sadka (2008) argue that their results support the "costly contracting" school of thought as being more descriptive relative to the "value relevance" perspective and that the general purpose of the financial statements are of questionable value.

Hypothesis 1 (Importance of Debt Contracts)

Prior studies (Ball et al. 2008; Khan and Watts 2009) that examine the contemporaneous relationship between conditional conservatism and leverage assume that capital structure is relevant. Although prior empirical studies have found a positive relation between leverage and conditional conservatism by association, we cannot infer the direction of the causal relation from these studies. The relation between debt contracts and conditional conservatism may be spurious if other factors which are irrelevant to capital structure increase the demand for conditional conservatism, making new debt issues cheaper, and thus increase the likelihood that the firm will enter the debt market. In some cases, we may observe that conditional conservatism appears to lead capital structure: for instance evidence that greater conditional conservatism decreases the cost of debt. This does not necessarily indicate that changes in conservatism lead to changes in capital structure. Rather, it is possible that capital structure has already led to changes in conditional conservatism, consequently decreasing the cost of debt. Therefore, my study examines whether the positive relation between leverage and conditional conservatism that we observe is actually caused by the existence of debt in capital structure. If debt contracts are a driving force creating the demand for conditional conservatism, I predict that firms with non-zero leverage will supply greater conditional conservatism complying with higher demand. Therefore, I formulate my first hypothesis:

H1(a): Firms with non-zero leverage provide more conditional conservatism than firms with zero leverage. (Existence of debt)

Given that the existence of debt generates demand for conditional conservatism, the demand for conservative accounting should be strongest in firms that have greater debt under a contracting explanation of conservatism. Higher leverage implies a relatively larger claim on the firm's assets by bondholders. From a bondholder's perspective, higher leverage intensifies the conflicts of interest with shareholders and the concern over firms' value-decreasing activities. This implies that firms with greater use of debt capital face higher agency costs and that the demand for conditional conservatism will be greater for these firms.

H1(b): Conservatism in accounting is increasing in leverage. (Quantity of debt)

While the conditional conservatism literature has focused on on-balance-sheet debt to examine the relationship between leverage and timely loss recognition, the relevance of off-balance-sheet leverage to accounting conservatism has not been examined. Off-balance-sheet obligations have debt-like characteristics. These obligations are a part of the firm's future liabilities and thus affect its financial leverage. Even though off-balance-sheet creditors are off the books, they still face the similar downside risk as other creditors.

Empirical evidence suggests that the economic implications of off-balance-sheet liabilities such as operating leases and pensions are not ignored by investors and creditors (Dhaliwal 1986; Imhoff et al. 1993; Ely 1995; Lim et al. 2005; Dhaliwal et al. 2009). This indicates that off-balance-sheet obligations are incremental leverage that also affects the firm's financial risk (Hamada 1969; Rubenstein 1973). Thus it creates agency problems between off-balance-sheet debt holders and shareholders as well as intensifying

problems with on-balance-sheet debt holders. Therefore, ceteris paribus, firms with higher off-balance-sheet leverage face higher agency costs and the demand for conditional conservatism will be greater. As a result, I expect to observe a positive association between additional leverage from capitalizing off-balance sheet liabilities and the provision of conservative financial reporting.

H1(c): A firm's conditional conservatism is increasing in the additional leverage associated with capitalized off-balance sheet obligations.

2.2.2. The effect of debt characteristics on conditional conservatism

In examining how specific contractual features of debt affect cross-sectional variation in the demand for conservatism, I consider both debt-related agency costs as well as lenders' monitoring incentives. While the main role of conditional conservatism is to provide lenders with timely information on firms' economic conditions, and thus reduce agency problems, conservatism is only one of various mechanisms that mitigate the agency cost of debt. To the extent that other mechanisms serve a similar role in resolving debt-related agency conflicts as that of conservative reporting, the use of these mechanisms should reduce the demand for conditional conservatism.

In addition, debt holders' incentives to monitor borrowers likely influence the relation between features of debt and conditional conservatism. Monitoring deters moral hazard because it enables lenders to detect a borrower's opportunistic behavior and to punish it through liquidation or renegotiation. If lenders have strong monitoring incentives, borrowers are less likely to behave opportunistically. As a result, if lenders are

able to gather private information that subsumes information contained in earnings, demand for conditional conservatism should be lower.

Hypothesis 2 (Public vs. Private Debt)

Prior studies argue that private lenders have a significant cost advantage over public debt holders with regard to monitoring (Diamond, 1984; Berlin and Loyes, 1988), access to private information (Fama, 1985), and liquidation or renegotiation efficiency (Chemmanur and Fulghieri, 1994). Myers (1977) suggests that one good solution to underinvestment problem is to maintain a continuous and flexible relationship with the lender. Firms are more likely to attain a continuous relationship with private lenders than with public debt holders, because private debt holders are more concentrated[5] and encounter fewer free-rider problems than public debt holders. Fama (1985) argues that banks have an advantage in obtaining information and monitoring because of their ongoing relationship with the borrowing firm. James (1987) reports evidence of positive price reaction to bank credit agreement announcements suggesting that banks have a comparative advantage in monitoring, consistent with the notion that banks provide unique services not available from other lenders. Denis and Mihov (2003) also argue that private lenders and banks have the ability to exert greater influence on management as compared to public debt holders, due to their concentrated holdings and access to information. Therefore, such lenders rely less heavily on financial reporting and have a lower demand for accounting conservatism. I test the following hypothesis regarding the relationship between conditional conservatism and debt placement:

[5] Publicly placed debt is less concentrated, since its ownership is diffuse and subject to significant renegotiation costs.

H2: Firms with relatively more public debt than private debt have greater conditional conservatism.

Hypothesis 3 (Short-term vs. Long-term Debt)

According to the agency cost hypothesis, long-term debt increases the likelihood of expropriation through either asset substitution or distributions to equity holders. Myers (1977) argues that shortening debt maturity mitigates the underinvestment problem by reducing the likelihood that a firm will need to exercise an option to invest before outstanding debt matures. Barclay and Smith (1995) provide empirical evidence that large firms, regulated firms, and firms with few growth options have more long-term debt in their capital structure, consistent with the agency cost hypothesis. Ho and Singer (1982) argue that even if short-term debt and long-term debt have the same priority in bankruptcy, short-term debt has a higher effective priority than long-term debt outside bankruptcy because it matures before long-term debt matures. Therefore, issuing short-term debt to finance new investment projects offers potential benefits that are similar to those from issuing secured debt for controlling the underinvestment problem.

However, this agency cost theory discussion ignores the costs of using short-term debt. Diamond (1991, 1993) argues that short-term borrowing exposes firms to the risk of excessive liquidations when lenders are reluctant to refinance debt (liquidity risk). Increasing the risk of suboptimal liquidation can be viewed as increasing expected bankruptcy costs which generate a portion of the agency costs associated with debt (Jensen and Meckling 1976). Therefore, this suggests that decreases in one type of agency conflicts (underinvestment or asset substitution) are offset by increases in another

type of agency costs (bankruptcy costs) when firms use short-term debt. Several papers (Barnea et al. 1980; Robbins and Schatzberg 1986) argue that complex long-term debt contracts can be more efficient than short-term debt because of these higher costs. Stohs and Mauer (1996) and Johnson (2003) conclude that firms would trade off the cost of agency problems against the cost of increased liquidity risk when choosing short debt maturity. Consequently, both agency costs arising from underinvestment and agency costs arising from liquidity risk are important to consider when developing a hypothesis associated with the maturity.

Firms that use relatively more long-term debt will provide greater conditional conservatism than firms with more short-term debt if using more short-term debt decreases overall agency costs. On the other hand, if using more short-term debt increases overall agency costs, using long-term debt should be more efficient to reduce overall agency costs and thus firms with relatively greater long-term debt will provide less conditional conservatism than firms with more short-term debt.

H3: Firms with relatively more long-term debt have greater (less) conditional conservatism if using more short-term debt decreases (increases) overall agency costs.

Hypothesis 4 (Convertible vs. Non-convertible Debt)

Green (1984) demonstrates that issuing convertible debt instead of straight debt reduces agency costs and distortionary investment incentives caused by bondholder/stockholder conflicts of interest. Conversion features impose a payoff structure on the shareholders' residual claim that alters the incentive to overinvest in risky projects. Hence, the risk shifting hypothesis (asset substitution) predicts that using

convertible debt is most likely to occur in firms facing significant risk in their investment opportunity set. Brennan and Schwartz (1988) suggest that convertibles may be issued to decrease the cost of borrowing when lenders are asymmetrically informed about the debtor's asset volatility, since convertibles are less sensitive to asset volatility and bankruptcy costs than is non-convertible debt. Because convertible debt includes an option-like component whose value increases with risk, convertibles provide investors with a hedge if the firm turns out to be riskier than expected. Consequently, issuers would prefer convertible debt issues to straight debt because they face high agency costs between bondholders and stockholders.[6] This suggests that convertible debt holders are less sensitive to decreases in firm value and are less likely to demand conditional conservatism.

H4: Firms with greater convertible debt relative to non-convertible debt have less conservative financial reporting.

Hypothesis 5 (Senior vs. Subordinated Debt)

Since the use of senior debt financing may limit claim dilution[7] and lower negotiation costs during bankruptcy proceedings (Scott 1977; Leeth and Scott 1989), bankruptcy costs can be reduced by using senior debt. Smith and Warner (1979) and Jackson and Kronman (1979) argue that selling senior debt can increase the total value of the firm by mitigating the asset substitution problem (Jensen and Meckling 1976). Because senior debt is less risky than subordinated debt, senior creditors benefit less from

[6] Firms without convertible debt have statistically significantly higher Altman Z scores (financially healthier) than firms with convertible debt. This is consistent with the argument that firms with greater agency costs of debt use convertible debt to reduce these agency conflicts.

[7] Senior debt usually includes covenants that prevent the firm from issuing additional debt with the same or higher priority or selling assets in the future.

new investments taken by the firm than subordinate creditors. Thus having senior debt makes it less likely that underinvestment problems or asset substitutions will arise and therefore the agency costs of debt will be lower if the firm uses more senior debt. As a result, senior debt holders are less likely to require other costly mechanisms that reduce the agency costs of debt, including timely loss recognition.[8] [9]

In order to determine that actions taken by borrowers are not in line with creditors' best interests during contract periods, lenders need to obtain information about a firm's economic condition by monitoring. Many studies (Repullo and Suarez 1998; Diamond 1991, 1993) conclude that the claims of the creditors who monitor or who make the liquidation decisions should be senior to those of creditors who do not. Park (2000) analytically shows that under an optimal contract, only the senior lender will monitor the borrower, and seniority allows the monitoring lender to appropriate the full return from this monitoring. Therefore senior debt will be best held by lenders with the lowest monitoring costs such as financial intermediaries. If senior debt holders are primarily financial intermediaries, they have the ability to obtain information outside of formal reporting requirements and thus may not be concerned about accounting conservatism. Consequently, the demand for timely loss recognition will be lower for firms with more senior debt.

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[8] From junior lenders' view, the argument can also be made as follows: Subordinated debt is riskier and thus firms with more junior debt have a higher probability of default. In such cases, junior lenders are more sensitive to changes in firm value and using senior debt may not be enough to mitigate the agency costs of debt demanded by the market. Therefore, demand for timely loss recognition will be higher for firms with more junior debt relative to senior debt.

[9] Firms with subordinated debt have statistically significantly lower Altman Z scores than firms without subordinated debt. Also there is a negative relationship between the amount of subordinated debt and Altman Z scores. This indicates that using senior debt can reduce the probability of default to a certain extent.

H5: Firms that use relatively more senior debt provide less conservative financial reporting.

Hypothesis 6 (Secured vs. Unsecured Debt)

Prior studies argue that security provisions in debt contracts reduce the expected cost of conflicts between debt holders and equity holders. Boot et al. (1991) show theoretically that collateral is a powerful instrument in dealing with moral hazard arising from the lender's inability to observe the borrower's action, even though it imposes a (deadweight) repossession cost on the lender. Smith and Warner (1979) and Jackson and Kronman (1979) also argue that secured debt offers a way to limit asset substitution that is less costly to monitor as alternative forms of bond covenants. This indicates that firms offer collateral to reduce the agency problems arising from financial distress and consequently reduce borrowing costs.

Chan and Kanatas (1985) demonstrate that if there is informational asymmetry between lenders and borrowers, the collateral chosen by the borrower provides a signal to the lender about the borrower's information and this information improves lenders' estimates of their expected returns. Swary and Udell (1988) argue that asset-based lending generally involves a form of intense monitoring such as observation of sales invoicing and inventory management. This monitoring produces valuable information about overall firm performance as well as information about the value of the collateral. Therefore, monitoring collateral provides information about the borrower's assets and relevant assets risk and thus a security provision may act as a substitute for the role of conditional conservatism.

As a result, security provisions appear to play a similar informational role to that of conditional conservatism. Thus, secured debt holders are less likely to demand high levels of loss timeliness.

H6: Firms that use relatively more secured debt provide less conservative financial reporting.

3. RESEARCH DESIGN AND SAMPLE SELECTION

3.1. Measuring conditional conservatism

Conditional conservatism is measured using the Basu (1997) regression model, which regresses earnings on returns and allows the return coefficient to vary with the sign of the return. Basu (1997) measures conservatism by the extent to which earnings reflect bad news more quickly than good news. Good news and bad news are characterized based on the sign of the firm's stock return (which proxies for economic news). The difference in timeliness between good and bad news is captured by δ_3 in the following regression:

$$EPS_{it} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it} * RET_{it} + \varepsilon_{it}$$

where EPS_{it} is the earnings per share before extraordinary items for firm i in fiscal year t, deflated by prior fiscal year price (P_{it-1}), RET_{it} is the return on firm i from 9 months before fiscal year-end t to three months after fiscal year-end t, and DR_{it} is a dummy variable equal to one if RET_{it} is negative and zero otherwise. If bad news is recognized in a more timely fashion than good news, $\delta_3$will be greater than zero (δ_3>0).

3.2. Does leverage influence conditional conservatism or vice versa?

In order to test hypothesis 1(a), whether the debt market is a true source of demand for conditional conservatism, I test whether leverage leads conservatism or vice versa by using (1) a large sample (employing a changes specification) and (2) a unique and small sample that transition between zero and positive leverage.

First, I use a large sample and incorporate the change in leverage at different time intervals t-1, t, and t+1 into equation (1) as follows:

$$EPS_{it} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it}*RET_{it} + \delta_4 \Delta LEV_{it+1} + \delta_5 DR_{it}*\Delta LEV_{it+1}$$
$$+ \delta_6 RET_{it}*\Delta LEV_{it+1} + \delta_7 DR_{it}*RET_{it}*\Delta LEV_{it+1} + \delta_8 \Delta LEV_{it} + \delta_9 DR_{it}*\Delta LEV_{it}$$
$$+ \delta_{10} RET_{it}*\Delta LEV_{it} + \delta_{11} DR_{it}*RET_{it}*\Delta LEV_{it} + \delta_{12} \Delta LEV_{it-1} + \delta_{13} DR_{it}*\Delta LEV_{it-1}$$
$$+ \delta_{14} RET_{it}*\Delta LEV_{it-1} + \delta_{15} DR_{it}*RET_{it}*\Delta LEV_{it-1} + \varepsilon_{it} \quad (1)$$

where ΔLEV_{t+X} is equal to the change in the leverage from period t+X-1 to t+X, where X is equal to one of the following -1, 0, 1. All other variables are the same as previously defined. If changes in leverage lead to changes in conservatism, I expect the coefficient of $DR_{it}*RET_{it}*\Delta LEV_{it-1}$ (δ_{15}) to be positive and significant and the coefficients on $DR_{it}*RET_{it}*\Delta LEV_{it}$ (δ_{11}) and $DR_{it}*RET_{it}*\Delta LEV_{it+1}$ (δ_7) to be insignificant or even negative if conservatism reverses.

Second, in order to investigate the order of causality with a cleaner sample and within a longer time horizon, I examine a unique sample of 118 firms that transition between zero debt and non-zero debt. In this test I require firms to have zero debt for at least 5 consecutive years before they transition and non-zero debt for at least 5 consecutive years after they transition. Thus, I am able to compare between zero debt and non-zero debt capital structure phases of the same firms. I use the following model:

$$EPS_{it} = \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it}*RET_{it} + \delta_4 NODEBT_{it} + \delta_5 DR_{it}*NODEBT_{it}$$
$$+ \delta_6 RET_{it}*NODEBT_{it} + \delta_7 DR_{it}*RET_{it}*NODEBT_{it} + \varepsilon_{it} \quad (2)$$

where *NODEBT* is an indicator variable equal to one if a firm is in the zero leverage capital structure phase and zero if a firm is in non-zero leverage capital structure phase. If leverage leads conservatism, I predict δ_7 to be negative. This suggests that conditional

conservatism is lower when a firm has zero leverage in its debt capital structure, and that changes in leverage lead to changes in conditional conservatism.

The results in Table 1 Panel A show whether changes in leverage lead to changes in conservatism or vice versa using the model (1). Consistent with my expectations, the coefficient on $DR_{it}*RET_{it}*\Delta LEV_{it-1}$ is significantly positive at the 1% level while $DR_{it}*RET_{it}*\Delta LEV_{it}$ and $DR_{it}*RET_{it}*\Delta LEV_{it+1}$ are insignificant and negative, respectively. This indicates that increases in leverage in the previous year are related to greater conservatism in the contemporaneous year, implying that leverage drives the demand for conservatism.

The results using this unique sample of zero debt firms (model (2)) are presented in Table 1, Panel B. In the first column reporting results from Basu (1997) model, the coefficient on $DR_{it}*RET_{it}*NODEBT_{it}$ is significantly negative (t=-2.51). The negative coefficient remains significant (t=-3.22 in column (2)) after controlling for book-to-market (*BTM*) and *SIZE* (log of total assets).[10] Although I examine the two phases of the same firms, there is a possibility that the results might be driven by changes in firm characteristics between the two phases (particularly characteristics that affect the decision to move from zero leverage to non-zero leverage). I use the Heckman (1979) two-stage approach to control for such possibility. In the first stage, I estimate a PROBIT model to obtain the inverse Mills ratio (*IMR*) by using variables that prior studies have found to affect the decision of zero vs. non-zero debt, such as size, profitability, dividend payout, taxes, cash holdings, growth, and industry. In the second stage, I include the *IMR* as a

[10] Khan and Watts (2009) identify firm size, market-to-book, and leverage as cross-sectional determinants of conditional conservatism.

control. The results obtained from including the *IMR* are presented in the column (3) of table 1. Even after controlling for endogeneity, the coefficient on $DR_{it}*RET_{it}*NODEBT_{it}$ remains significantly negative at the 5% level (t=-2.59). This indicates that the level of conditional conservatism throughout the zero debt capital structure phase is lower than that in the non-zero debt capital structure phase. Thus, it appears that changes in capital structure lead to changes in conditional conservatism.

Though the results are consistent with my prediction that leverage leads to changes in conservatism, I cannot rule out the possibility that there may be omitted variables that affect both capital structure and conservatism. Thus, the results should be interpreted with this caveat.

3.3. Research design to test hypotheses

In addition to the causal relationship examined in *3.2*, I also test H1(a) in a pooled regression with control variables (book-to-market and size):

For H1(a) (existence of debt) and H1(b) (quantity of debt),

$$\begin{aligned} EPS_{it} = {} & \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it}*RET_{it} \\ & + \delta_4 LEV_{it} + \delta_5 DR_{it}*LEV_{it} + \delta_6 RET_{it}*LEV_{it} + \delta_7 DR_{it}*RET_{it}*LEV_{it} \\ & + \delta_8 BTM_{it} + \delta_9 DR_{it}*BTM_{it} + \delta_{10} RET_{it}*BTM_{it} + \delta_{11} DR_{it}*RET_{it}*BTM_{it} \\ & + \delta_{12} SIZE_{it} + \delta_{13} DR_{it}*SIZE_{it} + \delta_{14} RET_{it}*SIZE_{it} + \delta_{15} DR_{it}*RET_{it}*SIZE_{it} + \varepsilon_{it} \end{aligned} \quad (3)$$

where *LEV* equals total debt (long-term plus short-term debt) deflated by the market value of assets (book value of debt plus market value of equity). I include *NODEBT* which is an indicator variable equal to one if a firm-year observation has zero debt and zero otherwise in the place of *LEV* for testing H1(a). *BTM* is the ratio of the book value

of equity to the market value of equity. *SIZE* is the natural log of total assets. I expect δ_7 to be negative for H1(a) and positive for H1(b).

Adding controls for firm characteristics in the Basu regression model causes multicollinearity problems and degrades the precision of my estimates. This is even more pronounced in the interaction terms between the firm-specific variables and the economic news proxies (*DR*, *RET*, and *DR*RET*). In order to mitigate this multicollinearity problem, I use a partial orthogonalization method (Burrill 1997; Lin and Yang 2006)[11] for the interaction terms. For H1(c), I use a model similar to equation (3) but including increases in leverage after adjusting for off-balance-sheet obligations as follows:

$$\begin{aligned} EPS_{it} = {} & \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it}*RET_{it} + \delta_4 ADD\_LEV_{it} + \delta_5 DR_{it}*ADD\_LEV_{it} \\ & + \delta_6 RET_{it}*ADD\_LEV_{it} + \delta_7 DR_{it}*RET_{it}*ADD\_LEV_{it} \\ & + \delta_8 LEV_{it} + \delta_9 DR_{it}*LEV_{it} + \delta_{10} RET_{it}*LEV_{it} + \delta_{11} DR_{it}*RET_{it}*LEV_{it} \\ & + \delta_{12} BTM_{it} + \delta_{13} DR_{it}*BTM_{it} + \delta_{14} RET_{it}*BTM_{it} + \delta_{15} DR_{it}*RET_{it}*BTM_{it} \\ & + \delta_{16} SIZE_{it} + \delta_{17} DR_{it}*SIZE_{it} + \delta_{18} RET_{it}*SIZE_{it} + \delta_{19} DR_{it}*RET_{it}*SIZE_{it} + \varepsilon_{it} \end{aligned} \quad (4)$$

where *ADD_LEV* is the amount of additional leverage obtained by capitalizing off-balance-sheet items (leverage including off-balance-sheet items minus leverage computed with only on-balance-sheet debt). I expect δ_7 to be positive for H1(c). For this test, I focus on off-balance-sheet items such as operating lease obligations[12], pension liabilities

[11] For example, I regress RET*SIZE on RET and SIZE (RET*SIZE = $\alpha_0 + \alpha_1$RET + α_1SIZE + □) and then take the residual (□) and use it in the main regression instead of RET*SIZE. I use this method for all interaction terms that have strong multicollinearity problems.

[12] Following Moody's approach, I estimate capitalized operating lease liabilities as the current rent expense (data47) times eight. Using Graham et al. (1998)'s method (current rental expense plus the present value of operating lease commitments for the next five years discounted at 10 percent) yields qualitatively similar results.

(PBO(#286+#294))-ABO(#285+#293)) under FAS 87 (from 1987 to 2005), and contingent liabilities (CLT from Compustat Xpressfeed).[13]

For the effect of debt characteristics on conditional conservatism (H2-H6), I use the following model in my analyses:

$$\begin{aligned} EPS_{it} = {} & \delta_0 + \delta_1 DR_{it} + \delta_2 RET_{it} + \delta_3 DR_{it}*RET_{it} + \delta_4 FEATURE_{it} + \delta_5 DR_{it}*FEATURE_{it} \\ & + \delta_6 RET_{it}*FEATURE_{it} + \delta_7 DR_{it}*RET_{it}*FEATURE_{it} \\ & + \delta_8 LEV_{it} + \delta_9 DR_{it}*LEV_{it} + \delta_{10} RET_{it}*LEV_{it} + \delta_{11} DR_{it}*RET_{it}*LEV_{it} \\ & + \delta_{12} BTM_{it} + \delta_{13} DR_{it}*BTM_{it} + \delta_{14} RET_{it}*BTM_{it} + \delta_{15} DR_{it}*RET_{it}*BTM_{it} \\ & + \delta_{16} SIZE_{it} + \delta_{17} DR_{it}*SIZE_{it} + \delta_{18} RET_{it}*SIZE_{it} + \delta_{19} DR_{it}*RET_{it}*SIZE_{it} + \varepsilon_{it} \end{aligned} \quad (5)$$

where FEATURE is equal to the ratio of debt with a given feature (e.g., public debt, long-term debt, convertible debt, senior debt, and secured debt) to total debt (or total long-term debt). I include leverage in the regression as a control variable to separate the effects of leverage for debt characteristics on conditional conservatism. I expect δ_7 to be positive for H2, positive (or negative) for H3, negative for H4, H5, and H6.

I estimate the empirical model using pooled time-series cross-sectional regressions and report t-statistics using White (1980) standard error clustered at the firm level.[14]

3.4. Sample selection

I begin the sample selection procedure by selecting 181,050 observations over the 1962 to 2006 time period with non-missing asset data from the Compustat Fundamental Annual file and CRSP. To be included in the sample, a firm must have returns data from

[13] Contingent liabilities-Total (CLT) includes forward and future contracts, foreign exchange commitments, guarantees, interest rate swaps, letters of credit, loan commitments, and other.
[14] Including industry and year fixed effects does not change my conclusions.

CRSP and Compustat data on earnings, market value of equity, total assets, total debt (short-term plus long-term debt), and debt with specific features (convertible debt, subordinated debt, and secured debt). Annual buy-and-hold returns are computed by compounding a continuous 12 months of returns starting from the fourth month after the firm's fiscal year end (Hayn 1995; Basu 1997). Earnings are measured as net income before extraordinary items (data18), deflated by the market value of equity at the beginning of the fiscal year (data25*data199). Since this paper examines the firm's capital structure, I exclude the financial sector (SIC 6000-6999) and utility sector (SIC 4900-4999) from my sample. I also delete firm years with price per share of less than $1. Public debt data is obtained from the Mergent FISD database. Appendix A shows how I estimate the amount of public debt from the Mergent FISD database. Finally, all continuous variables are truncated at the 1st and 99th percentiles to mitigate the effect of extreme observations. The final sample varies from 85,994 to 8,132 firm-years across hypotheses because of variation in data requirements.

4. EMPIRICAL RESULTS

4.1. Summary statistics

Panel A of Table 2 reports descriptive statistics. I report summary statistics obtained from the full sample of 85,994 observations which are used to test the effect of zero leverage on conditional conservatism (H1(a)). Statistics for other variables of interest (*PUB, LTD, CONV, SEN, SEC*) are extracted from each sample that is used to test H2-H6, thus the number of observations is different across variables. The sample firms finance, on average, 23.25% of the market value of assets with long-term and short-term debt. The average sample firm has a book-to-market ratio (*BTM*) of 0.73.

Panel B of Table 2 presents univariate correlations for all of the variables used in the regression models. Pearson product-moment correlations are shown above the diagonal and Spearman rank-order correlations are shown below. *EPS* and *RET* are positively correlated. This implies that accounting earnings reflect some of the information in returns. Leverage (*LEV*) is positively related to both size and BTM, consistent with findings in prior studies. Based on the univariate analysis, firms with higher leverage are more likely to have less public debt. To the extent that leverage proxies for the probability of default, financially healthy firms may find private debt holders' monitoring unnecessary. Supporting the findings in Barclay and Smith (1995), firms that have fewer growth options as indicated by a high book-to-market ratio and that are larger tend to also have greater levels of long-term debt. Firms that are smaller and have higher growth opportunities (low BTM) tend to have more convertible debt. This is consistent with the argument in prior studies that firms that face significant risk in their

investment opportunity set are more likely to issue convertible debt. There is a negative relation between firm size and the proportion of secured debt. This negative association is attributed to both a greater probability of liquidation and to greater levels of asymmetric information associated with smaller firms, which in turn leads them to use more secured debt. Both senior debt and secured debt are positively correlated with leverage, indicating that firms with a higher probability of default tend to use secured or senior debt.

4.2. Multivariate regression results

Table 3 displays the results from testing hypothesis 1(a) and 1(b), regarding whether the existence of debt and the quantity of debt affects conditional conservatism. The first column presents the results from testing the importance of the existence of debt by including an indicator variable, *NODEBT*. When a firm-year observation has zero debt, *NODEBT* is equal to one and zero otherwise. I expect the existence of debt to increase the demand for conditional conservatism. Consistent with this prediction, the coefficient on $DR_{it}*RET_{it}*NODEBT_{it}$ is -0.0277 (t=-2.35), significant at the 5% level, indicating that conditional conservatism is greater when firms have debt in their capital structure. Since there is a possibility of selection bias in that the results may be driven by differences in firm characteristics that select zero leverage, I use the Heckman (1979) two-stage approach to control for such bias.[15] The results obtained after including the inverse Mill's ratio (*IMR*) are presented in the second column of table 3. The coefficients on the IMR_{it}, $RET_{it}*IMR_{it}$, and $DR_{it}*RET_{it}*IMR_{it}$ are significant (t=-13.78, 3.42, and -3.89, respectively), indicating potential selection bias. However, even after controlling for

[15] I include the same variables (size, profitability, dividend, tax, cash holdings, growth, and industry) used in the section 3.2 to obtain inverse Mill's ratio in the Heckman (1979)'s first stage.

selection bias, the coefficient on $DR_{it}*RET_{it}*NODEBT_{it}$ remains significantly negative at the 1% level (t = -4.87). Table 3 also shows that within positive leverage observations, conditional conservatism is increasing in leverage, consistent with findings in prior studies (the coefficient on $DR_{it}*RET_{it}*LEV_{it}$ is significantly positive with a t-stat of 2.32). The results of the effect of increased leverage from adjusting off-balance-sheet liabilities on conditional conservatism are also presented in Table 3. The first column of H1(c) shows that the coefficient on *ADD_LEV* is significantly positive at the 1% level (t=4.55). Since there is a possibility that selection bias related to the decision to use off-balance-sheet financing may affect the results, I include the inverse Mills ratio (IMR) obtained from a first-stage auxiliary equation, consistent with Heckman (1979).[16] In the second column of H1(c), the coefficients on *IMR, RET*IMR,* and *DR*RET*IMR* are significant, indicating that controlling for selection bias is important. However, *ADD_LEV* remains significantly positive at the 1% level (t=4.38). This implies that off-balance-sheet liabilities are considered to be additional financial leverage and thus off-balance-sheet debt holders demand conditional conservatism to protect their downside risk. This finding provides evidence that using only on-balance-sheet debt when the relationship between leverage and conditional conservatism is examined may understate the degree of this relationship.

For testing the relationship between each contractual feature of debt and conditional conservatism, I require each observation to have both featured and non-

[16] I include size, leverage, MTB, tax rate, Altman's Z scores, capital intensity, profitability, and industry dummies that prior studies found to affect the decision of off-balance-sheet vs. on-balance-sheet debt in the Heckman (1979)'s first stage to obtain the inverse Mill's ratio.

featured debt in their capital structure. This ensures that my results are not driven by the decision to have or not have a specific feature of debt.[17] Table 4 presents the results of testing hypotheses 2, 3, and 4; whether placement (H2), maturity (H3), and convertibility (H4) have effects on the provision of conditional conservatism. With respect to H2, the coefficient on $DR_{it}*RET_{it}*PUB_{it}$ is positive and statistically significant (t=2.52). This result is consistent with the argument that private debt holders have more access to private information and thus are not as concerned about financial statements as public debt holders are.

According to H3, if greater use of long-term debt increases debt-related agency costs, then debt holders should demand more conservative financial reporting. This should lead to the coefficient on $DR_{it}*RET_{it}*LTD_{it}$ being positive. In contrast, if greater use of short-term debt increases refinancing risk (liquidity risk), firms may seek to reduce the cost of debt by increasing conditional conservatism. This should lead to the coefficient on $DR_{it}*RET_{it}*LTD_{it}$ being negative. Table 4 reports that the coefficient on $DR_{it}*RET_{it}*LTD_{it}$ is significantly negative at the 1% level (t=-5.42). The negative coefficient supports the argument that firms with greater short-term debt face higher refinancing risk which outweighs decreases in the agency costs of debt.

In examining convertible vs. non-convertible debt (H4), I expect the coefficient on $DR_{it}*RET_{it}*CONV_{it}$ to be negative. Convertible debt is less sensitive to asset volatility due to its equity-like feature. Thus, convertible debt holders should demand less timely

[17] I believe that using observations that have both featured debt and non-featured debt is appropriate for the purpose of my study. This is because debt is homogeneous if firms have only one type or one feature of debt in their capital structure.

information regarding a borrower's future financial condition. Inconsistent with this prediction, the coefficient on $DR_{it}*RET_{it}*CONV_{it}$ is positive and statistically significant (t=3.57). As an alternative explanation of this result, when there is a low probability that convertible debt holders exercise their conversion options, they have to protect their downside risk by demanding more conditional conservatism similar to non-convertible debt holders. In other words, convertible feature may help mitigate agency costs only when the debt has a possibility of conversion. I specifically deal with this issue in section 5.7.

Table 5 displays the results from testing hypotheses 5 and 6. For both hypotheses, senior vs. subordinated debt and secured vs. unsecured debt, the coefficients on both $DR_{it}*RET_{it}*SEN_{it}$ and $DR_{it}*RET_{it}*SEC_{it}$ are expected to be negative. Higher priority debt (senior debt) provides greater protection in the event of a default and thus lowers debt-related agency costs. Thus, senior debt holders are less likely to demand greater conditional conservatism. In addition, in order for senior lenders to obtain early signs of the borrower's financial condition and secure their claim, they are more likely to have strong monitoring incentives. Taken together, higher priority and greater incentives to monitor (e.g., gather private information) provide less demand for accounting conservatism. Secured debt holders collect information on the borrower's assets by monitoring collateral directly and thus demand less conditional conservatism in the financial statement than unsecured debt holders. Supporting these arguments, the coefficients on both $DR_{it}*RET_{it}*SEN_{it}$ and $DR_{it}*RET_{it}*SEC_{it}$ are negative and significant (t=-1.65 and -2.01, respectively).

5. ADDITIONAL TESTS

5.1. Alternative measures of conditional conservatism

Some prior studies argue that the construct validity of conservatism measures is weak. For example, Wang et al. (2008) suggest that conservatism measures used in prior studies may have a low degree of construct validity overall. Dietrich et al. (2007) argue that there is low statistical validity in the Basu's (1997) differential timeliness measure. Givoly et al. (2007) also provide evidence suggesting that Basu's (1997) differential timeliness measure suffers from serious measurement errors caused by certain characteristics such as the firm's disclosure policies.[18] Given that there is no universally-accepted single measure of conservatism, I use two additional conservatism measures, as used in Ball and Shivakumar (2005), to validate my results. Ball and Shivakumar (2005) examine differences in conservatism between private and public equity firms in U.K. Their analysis is based on the likelihood of reporting loss components of income that are transitory in time and on accrual behavior related to transitory loss recognition. They use the following two models to measure conditional conservatism:

(1) Accruals-based test of timely loss recognition

$$ACC_{it} = \beta_0 + \beta_1 DC_{it} + \beta_2 \Delta CFO_{it} + \beta_3 DC_{it} * \Delta CFO_{it} + \varepsilon_{it}$$

[18] Ball, Kothari, and Nikolaev (2009) address the conceptual and econometric challenges to the Basu (1997) measure raised in the recent literature and examine the Basu measure's validity. They conclude that the Basu measure is a valid representation of the extent of conditional conservatism in accounting income and that criticism of the Basu measure is based on a misconception of the research objectives of studies that utilize it.

where ACC_{it} is total accruals in year t, deflated by beginning of the year total assets, ΔCFO_{it} is the change in cash flow from operations (#308)[19] in year t, adjusted for extraordinary items and discontinued operations (#124), deflated by the year t-1 total assets, and DC_{it} is a dummy variable equal to one if change in cash flows is negative and zero otherwise. The coefficient on the interaction term between DC and ΔCFO (β_3) measures conditional conservatism. If economic losses are recognized in a more timely fashion than gains, then β_3 will be greater than zero. Table 6 presents the results for each hypothesis. Consistent with the main results reported in tables 3 through 5, the coefficients on *DC_ΔCFO_NODEBT* and *DC_ΔCFO_LEV* are significantly negative (t= -2.41) and significantly positive (t=2.03), respectively. Increases in leverage from pro-forma capitalization of off-balance-sheet obligations (*DC_ΔCFO_ADDLEV*) incrementally affect conditional conservatism (coefficient=0.2344 and t=2.80). With respect to debt characteristics, the coefficients on *DC_ΔCFO_PUB* and *DC_ΔCFO_CONV* are significantly positive (t=2.05 and t=2.90, respectively) while the coefficients on *DC_ΔCFO_LTD*, *DC_ΔCFO_SEN*, and *DC_ΔCFO_SEC* (t=-2.05, t= -1.65, and t=-2.83, respectively) are significantly negative, consistent with the main results.

(2) Change in income-based test of timely loss recognition

$$\Delta NI_{it} = \alpha_0 + \alpha_1 DN_{it-1} + \alpha_2 \Delta NI_{it-1} + \alpha_3 DN_{it-1} * \Delta NI_{it-1} + \varepsilon_{it-1}$$

where ΔNI is the change in earnings before extraordinary from year t-1 to year t, scaled by the beginning book value of total assets and *DN* is a dummy variable equal to one if

[19] Following Hribar and Collins (2002), I use statement of cash flow data item 308. This data is available from 1988.

the *ΔNI* in the prior year is negative and zero otherwise. The coefficient on the interaction term between *DN* and *ΔNI* (α_3) measures the degree of conditional conservatism. Deferring the recognition of gains until their related cash flows are realized causes gains to be a persistent positive component of accounting income that tends not to reverse. An implication of this is that the coefficient α_2 is expected to equal zero. In contrast, the timely recognition of economic losses implies that they are recognized as transitory income decreases and thus reverse in subsequent periods. This implies that $\alpha_2 + \alpha_3 < 0$. Recognizing economic losses in a more timely fashion than gains implies that $\alpha_3 < 0$. Table 7 presents the results for each hypothesis. Consistent with the main results reported in Table 3-5, the coefficients on *DN_ΔNI_NODEBT* and *DN_ΔNI_LEV* are significantly positive (t=2.54) and significantly negative (t=-10.92), respectively. Increases in leverage from pro-forma capitalization of off-balance-sheet obligations (*DN_ΔNI_ADDLEV*) incrementally affect conditional conservatism (t=-13.74). With respect to debt characteristics, the coefficients on *DN_ΔNI_PUB* and *DN_ΔNI_CONV* are significantly negative (t=-2.23 and t=-1.68, respectively) while the coefficients on *DN_ΔNI_LTD*, *DN_ΔNI_SEN*, and *DN_ΔNI_SEC* (t=2.45, t=2.51, and t=2.32, respectively) are significantly positive, consistent with the main results.

5.2. Alternative measures of debt characteristics

I use Compustat data #82 as a proxy for public debt since estimation from Mergent FISD may be noisy. Data #82 is debt debentures that represent long-term debt containing a promise to pay a specific amount of money on a fixed date (usually more than 10 years after issuance – and with a promise to pay interest on stated dates). This

item includes: (1) all long-term debentures or bonds which are neither convertible nor subordinated, (2) mortgage bonds, and (3) subordinated debentures and other debentures when presented together. The results, while qualitatively similar, are stronger than the results obtained from Mergent FISD data.

Following Barclay and Smith (1995), I reclassify short-term debt as debt that has maturity equal to or less than 3 years (Compustat data #34 plus data #91 plus data #92) instead of using debt maturing within one year. The results are qualitatively similar, indicating that firms with greater short-term debt report more conservative financial numbers.

I use Compustat data #80 (long-term subordinated debt) in order to derive the ratio of senior debt to long-term debt (1-data#80/data#9). Secured debt is considered to be senior to other ordinary debt. Therefore, the results of the senior debt hypothesis may be driven by the effect of secured debt since both hypotheses have the same directional predictions. In order to address this concern, I test the senior debt hypothesis with the sample that has no secured debt (data#241=0). The results (not reported) are similar to the main results, indicating that firms with more senior debt have lower conditional conservatism.

5.3. Other explanations of conditional conservatism

Beaver (1993) and Watts (1993, 2003a) suggest that litigation may be a source of conservatism since there is a higher probability of litigation when the financial statements are overstated, rather than understated. As a robustness check, I include a proxy for litigation risk in the main regression to examine whether the results are robust to

controlling for litigation-based effects. The proxy for litigation risk takes the value of 1 if firms operate in the four-digit SIC code of 2833-2836 (pharmaceutical), 3570-3577 (computer hardware), 3600-3674 (electronics), 5200-5961 (retailing), and 7370-7374 (computer software), and zero otherwise. My conclusions remain the same after controlling for litigation risk (untabulated).

Following Beatty et al. (2008), I also include institutional ownership, defined as the average percentage of institutional ownership over the four quarters in the year, to capture equity-based demand for conditional conservatism.[20] In untabulated results, I find a negative coefficient on institutional ownership, consistent with the argument that institutions have greater access to information and lower information asymmetries. More important, the main conclusions remain unchanged.

5.4. Three-Year Basu (1997) Specification

Roychowdhury and Watts (2007) point out that returns are driven by rent changes, while accounting income does not respond to such changes.[21] Hence, earnings timeliness will be low when news is driven by rent changes. The measurement error introduced by changes in rents (growth options) diminishes when timeliness measures are estimated over longer horizons. Although one-year intervals seem to be more appropriate for the purpose of my study, given that my construct involves asymmetric timeliness of annual earnings and not its cumulative effect over long horizons, I also use models aggregated over three years for both returns and earnings to examine whether my results are affected

[20] Beatty et al. (2008) include the square of institutional ownership variable to accommodate non-linearity in the relation between institutional ownership and conservatism. Including the squared variable does not change my results.

[21] Changes in rent represent changes in growth opportunities and/or in the returns to some monopoly power.

by measurement error. Doing so significantly reduces my sample size, since I require three-years of monthly returns and three-years of annual earnings (range between 67,335 and 6,713). This procedure yields considerably higher adjusted-R^2s than those reported in Table 3-5 (range between 0.263 and 0.334), supporting a stronger return-earnings association. While the coefficient testing the convertibility of debt decreases in significance, all of the main results are qualitatively the same.

5.5. Controlling for price convexity

Easton et al. (2009) provide evidence that price convexity[22] (their proxy for debt-related agency costs) is not only correlated with the timely recognition of losses in accounting earnings, but also varies with levels of stock price. Thus, the Basu regression of price-deflated earnings on price-deflated returns is equivalent to conditioning on the magnitude of debt-related agency costs. They suggest that research in examining the association between debt-related agency problems and timely loss recognition should parse the price-deflator effect by including a proxy for agency problems in the regression. In order to examine whether the results are affected by the price deflation effect, I include price convexity (*PCA*) as a proxy for debt-related agency costs (both its main and interaction effects). The coefficient on *DR_RET_PCA* is usually significantly positive, consistent with the results in Easton et al. (2009). After controlling for price convexity my results remain qualitatively similar, indicating that they are not driven by the price deflation effect.

[22] Price convexity is computed by running a non-parametric local regression of positive (negative) annual stock returns on both a constant and the inverse of the beginning-of-year stock price within each of 46 price level portfolios. The predicted values of positive (negative) returns are obtained from the results from local regressions and price convexity is the predicted positive returns divided by the predicted negative returns (Easton et al. 2009 for more details).

5.6. Short-term Debt vs. Long-term Debt

The main result from H3 (maturity of debt) demonstrates that on average, using more short-term debt increases overall agency costs of debt in my sample. If the negative relation between long-term debt and conditional conservatism is driven by firms with higher liquidity risk (bankruptcy costs), I should observe the opposite result (the positive relation) with firms that have lower liquidity risk.

The costs imposed by liquidity risk should be higher for the low rated borrowers who are likely to have a greater probability of default (Diamond 1991). I use three sub-samples. The high credit rating sample consists of observations that have an S&P issuer credit rating equal to A$^-$ or higher while the low credit rating sample consists of observations that have an S&P issuer credit rating lower than A$^-$. Also I test a sub-sample of no credit rating separately. Table 8 reports the results of testing hypothesis 3 with sub-samples of each credit rating group (high=1, high=0, no credit rating). The coefficient on *DR_RET_LTD* is significantly positive (t=3.07) for the high credit rating group. This indicates that high credit rating firms that are likely to have low liquidity risk can benefit from using short-term debt and thus mitigate agency costs without generating increases in bankruptcy costs. On the other hand, the coefficients on *DR_RET_LTD* for both the low credit rating group and no credit rating group are significantly negative (t=-2.67 and t= -3.41, respectively). Both the low credit rating and no credit rating groups mitigate agency costs by using more short-term debt, however this decrease in agency costs is completely offset by increase in agency costs from liquidity risk.

5.7. Convertible Debt vs. Non-convertible Debt

Inconsistent with my prediction based on agency theory, firms with relatively more convertible debt provide greater conditional conservatism. Convertible debt holders expect that the firm will continuously perform better in the future so that they can benefit from the option to convert the debt into the firm's equity. In order for convertible feature to mitigate agency costs, there should be a possibility of conversion in the future. Otherwise, convertible debt is the same as straight debt. Particularly, for low credit rating firms, convertible debt is more likely "straight debt-like" (low probability for debt to be converted into equity). In such a case, convertible debt holders behave more like straight debt holders who are concerned about the downside risk of debt. Thus, convertible debt holders demand conditional conservatism just as non-convertible debt holders. However for highly rated firms that have a low probability of default, convertible debt holders do not need to be concerned about default even when their debt is not converted into equity. Therefore, they are less likely to demand conditional conservatism. As a sensitivity test, I use sub-samples that are likely to have lower or higher financial distress risk and re-test hypothesis 4. Table 9 reports the results of testing using these sub-samples. When using a sub-sample that has high credit ratings (A^- or higher), the coefficient on *DR_RET_CONV* becomes significantly negative (t=-2.23) at the 5% level. Also the coefficient on *DR_RET_CONV* for the sub-sample that has investment-grade credit ratings is significantly negative (t=-1.72) at the 10% level, consistent with my prediction in H4. The coefficient for the sub-sample that has non-investment-grade credit ratings or no credit rating is positive but insignificant. The results are consistent with the argument that

convertible feature helps mitigate agency costs but only when the debt has a possibility of conversion.

6. CONCLUSIONS

This study examines whether the presence of debt increases the demand for accounting conservatism, and tests whether differences in debt characteristics further explain cross-sectional variation in conservatism.

The results indicate that firms with zero leverage provide less conservative financial reports, implying that entering the debt market significantly affects the change in the level of conditional conservatism. Given that firms enter the debt-market, conservatism is increasing in leverage, confirming the results of prior studies. In addition, capitalized off-balance-sheet liabilities incrementally affect timely loss recognition through increases in leverage. As a whole, this evidence supports the debt contracting explanation for the demand of conditional conservatism.

I also find that firms with more public debt, relative to private debt, recognize losses (bad news) in a more timely fashion, consistent with public debt holders relying on conservatism given their disadvantages in monitoring and in accessing private information. Consistent with the liquidity risk (refinancing risk) argument, firms with more long-term debt than short-term debt have less conservative financial numbers. This result reflects the domination of liquidity risk (expected bankruptcy costs) over agency costs. Using a sub-sample of firms with a high credit rating (lower liquidity risk), I find that firms with relatively more long-term debt are more conservative in financial reporting, consistent with the domination of agency costs over liquidity risk. I also find that less conditional conservatism is demanded by debt holders at firms with more senior debt. This result supports the notion that senior lenders are less sensitive to changes in

firm value than junior debt holders and that they also have strong incentives to monitor and thus are less concerned about financial statements. Secured debt also leads to lower degrees of conditional conservatism, since secured debt holders obtain information about the borrower's assets and assets-related risk from monitoring collateral and because this information can subsume information provided by conditional conservatism. Contrary to my prediction, I find that firms with a greater reliance on convertible debt generate more conservative earnings. This finding, however, is reversed for a sub-sample where there is a greater probability of conversion, and is consistent with my prediction.

Taken together, my findings support the importance of debt in explaining cross-sectional variation in the timeliness of loss recognition. My results also demonstrate that the effect of specific types and features of debt is important in producing a certain level of demand for conditional conservatism. In future research, each type of debt can be dissected further in order to examine how the design of each type of debt affects agency costs and thus financial reporting quality.

APPENDIX A: MERGENT FISD DATABASE

I estimate the outstanding balance of public debt for each firm-year observation from the Mergent FISD database. The following example describes my estimation procedure:

Data from Mergent FISD

CNUM	offer_date	offer_amount	Action	effective_date	maturity	outstanding
000361	198910	65,000	IM	200111	200111	0
000361	199310	50,000	IM	200310	200310	0
000361	199712	60,000	IM	200712	200712	0
000361	200407	75,000	B	200802	202402	0
000361	200605	150,000	I	200605	202602	150,000

"Action" is the type of action that took place to change the amount outstanding. In this example, IM is the issue matured, B is the balance of issue called, and I is the initial offering of an issue. I summed up the balance of each outstanding debt in each year as follows:

CNUM	FYR	Bond1	Bond2	Bond3	Bond4	Bond5	Outstanding Balance of Public Debt
000361	198905						
000361	199005	65,000					65,000
000361	199105	65,000					65,000
000361	199205	65,000					65,000
000361	199305	65,000					65,000
000361	199405	65,000	50,000				115,000
000361	199505	65,000	50,000				115,000
000361	199605	65,000	50,000				115,000
000361	199705	65,000	50,000				115,000
000361	199805	65,000	50,000	60,000			175,000
000361	199905	65,000	50,000	60,000			175,000
000361	200005	65,000	50,000	60,000			175,000
000361	200105	65,000	50,000	60,000			175,000
000361	200205		50,000	60,000			110,000
000361	200305		50,000	60,000			110,000
000361	200405			60,000			60,000
000361	200505			60,000	75,000		135,000
000361	200605			60,000	75,000	150,000	285,000
000361	200705			60,000	75,000	150,000	285,000
000361	200805					150,000	150,000

APPENDIX B

TABLES

TABLE 1

Does Leverage Influence Conditional Conservatism? (Casual Relationship Test)

Panel A		
Intercept	0.0771	
	(67.31)	***
DR	-0.0135	
	(-7.91)	***
RET	-0.0145	
	(-6.39)	***
*DR*RET*	0.2150	
	(31.79)	***
ΔLEVt+1	0.0067	
	(0.53)	
*DR*ΔLEVt+1*	0.0325	
	(1.65)	*
*RET*ΔLEVt+1*	-0.0257	
	(-1.17)	
*DR*RET*ΔLEVt+1*	-0.2266	
	(-4.37)	***
ΔLEVt	-0.1844	
	(-13.00)	***
*DR*ΔLEVt*	0.1118	
	(4.78)	***
*RET*ΔLEVt*	-0.1393	
	(-6.13)	***
*DR*RET*ΔLEVt*	0.0071	
	(0.13)	
ΔLEVt-1	-0.1294	
	(-10.06)	***
*DR*ΔLEVt-1*	-0.0209	
	(-0.93)	
*RET*ΔLEVt-1*	-0.1091	
	(-4.81)	***
*DR*RET*ΔLEVt-1*	0.2920	
	(4.38)	***
N	63,093	
AdjR2	12.46%	

TABLE 1, continued
Does Leverage Influence Conditional Conservatism? (Casual Relationship Test)

All variables except indicators are truncated at the 1st and 99th percentiles by year. Two-tailed, heteroskedasticity-robust t-statistics clustered at the firm level are shown below coefficient estimates. *, **, *** next to the t-statistic indicate that the coefficient estimate is significant at the 0.1, 0.05, and 0.01 level in two-tailed tests. *EPS* is net income before extraordinary items (#18), scaled by the lagged market value of equity (#25*#199). *RET* is annual returns calculated by compounding the monthly returns beginning in the fourth month after fiscal year end. *DR* is equal to one if *RET* is negative, zero otherwise. *LEV* is defined as total debt divided by the market value of total assets. ΔLEV_{it} is the change in leverage (#9+#34) from t-1 to t.

TABLE 1, continued

Does Leverage Influence Conditional Conservatism? (Casual Relationship Test)

Panel B			
	(1)	(2)	(3)
Intercept	0.0632	0.0805	0.0775
	(9.69) ***	(3.63) ***	(4.74) ***
DR	-0.0065	-0.0028	-0.0002
	(-0.81)	(-0.09)	(-0.01)
RET	-0.0196	-0.0879	-0.0546
	(-1.38)	(-2.12) **	(-2.31) **
*DR*RET*	0.2236	0.4772	0.2409
	(6.87) ***	(4.20) ***	(4.04) ***
NODEBT	0.0170	0.0135	-0.0192
	(1.87) *	(1.52)	(-1.51)
*DR*NODEBT*	-0.0094	-0.0093	-0.0057
	(-0.82)	(-0.75)	(-0.32)
*RET*NODEBT*	0.0231	0.0314	0.0299
	(1.33)	(1.75) *	(1.08)
*DR*RET*NODEBT*	-0.0982	-0.1449	-0.1504
	(-2.51) **	(-3.22) ***	(-2.59) **
BTM		-0.0126	0.0106
		(-0.80)	(0.65)
*DR*BTM*		0.0016	-0.0037
		(0.07)	(-0.15)
*RET*BTM*		0.0983	0.0903
		(3.20) ***	(3.03) ***
*DR*RET*BTM*		-0.1095	-0.0794
		(-1.95) *	(-1.44)
SIZE		-0.0030	0.0104
		(-1.11)	(4.89) ***
*DR*SIZE*		0.0000	0.0050
		0.00	(1.16)
*RET*SIZE*		0.0061	0.0019
		(1.32)	(0.42)
*DR*RET*SIZE*		-0.0460	-0.0333
		(-3.19) ***	(-2.55) **
IMR			-0.0578
			(-6.14) ***
*DR*IMR*			0.0101
			(0.53)
*RET*IMR*			-0.0049
			(-0.22)
*DR*RET*IMR*			-0.0214
			(-0.41)
N	2,666	2,666	2,660
Adj_R2	9.66%	12.33%	17.12%

TABLE 1, continued

Does Leverage Influence Conditional Conservatism? (Casual Relationship Test)

All variables except indicators are truncated at the 1st and 99th percentiles by year. Two-tailed, heteroskedasticity-robust t-statistics clustered at the firm level are shown below coefficient estimates. *, **, *** next to the t-statistic indicate that the coefficient estimate is significant at the 0.1, 0.05, and 0.01 level in two-tailed tests. *EPS* is net income before extraordinary items (#18), scaled by the lagged market value of equity (#25*#199). *RET* is annual returns calculated by compounding the monthly returns beginning in the fourth month after fiscal year end. *DR* is equal to one if *RET* is negative, zero otherwise. *NODEBT* is an indicator variable equal to one if a firm has zero leverage, zero otherwise. *BTM* is the book-to-market ratio defined as the book value of equity (#60) divided by the market value of equity (#25*#199). *SIZE* is equal to the natural log of total assets (#6). *IMR* is the inverse Mill's ratio obtained from the PROBIT fist-stage regression model.

TABLE 2
Summary Statistics

Panel A: Summary Statistics

	N	MEAN	STD	Q1	Median	Q3
EPS	85,994	0.0420	0.1449	0.0105	0.0584	0.1034
RET	85,994	0.1695	0.5957	-0.1899	0.0714	0.3895
DR	85,994	0.4292	0.4950	0	0	1
ZERO	85,994	0.1078	0.3102	0	0	0
LEV	85,994	0.2325	0.2164	0.0388	0.1783	0.3750
BTM	85,994	0.7255	0.5398	0.3370	0.5804	0.9615
SIZE	85,994	4.9280	1.9427	3.4888	4.7374	6.2050
ADD_LEV	54,360	0.1029	0.1061	0.0269	0.0699	0.1421
PUB	12,413	0.4981	0.2620	0.2847	0.4764	0.7041
LTD	71,530	0.6944	0.2824	0.5255	0.7863	0.9256
CONV	11,640	0.3935	0.3135	0.1214	0.3051	0.6455
SEN	8,132	0.6777	0.2796	0.4941	0.7585	0.9169
SEC	22,742	0.3534	0.3233	0.0657	0.2447	0.6085

Panel B: Pearson (Spearman) Correlations above (below) the diagonal

	EPS	RET	DR	LEV	BTM	SIZE	ADD_LEV	PUB	LTD	CONV	SEN	SEC
EPS		**0.181**	**-0.238**	**-0.008**	**0.077**	**0.089**	**-0.036**	**-0.121**	**0.152**	**-0.241**	**0.127**	**-0.029**
RET	**0.361**		**-0.642**	**-0.128**	**-0.179**	**-0.008**	**-0.066**	**0.023**	**0.040**	-0.009	-0.011	0.009
DR	**-0.321**	**-0.857**		**0.113**	**0.146**	**-0.092**	**0.063**	**0.020**	**-0.078**	**0.067**	**-0.023**	**0.029**
LEV	**0.095**	**-0.110**	**0.089**		**0.500**	**0.113**	**-0.083**	**-0.239**	**0.078**	**-0.379**	**0.080**	**0.074**
BTM	**0.181**	**-0.193**	**0.153**	**0.467**		**-0.119**	**0.197**	**-0.103**	**0.047**	**-0.285**	**0.104**	**0.088**
SIZE	**0.086**	**0.061**	**-0.091**	**0.151**	**-0.084**		**-0.090**	**-0.257**	**0.153**	**-0.174**	**0.044**	**-0.320**
ADD_LEV	0.008	**-0.075**	**0.062**	**-0.023**	**0.223**	**-0.056**		0.017	**-0.026**	**-0.054**	**0.013**	**0.029**
PUB	**-0.152**	-0.004	**0.020**	**-0.248**	**-0.117**	**-0.255**	0.003		**-0.105**	**0.232**	**-0.095**	**-0.183**
LTD	**0.125**	**0.070**	**-0.070**	**0.080**	**0.041**	**0.169**	**-0.028**	**0.040**		**0.082**	**-0.102**	**0.101**
CONV	**-0.296**	**-0.061**	**0.070**	**-0.368**	**-0.302**	**-0.168**	**-0.057**	**0.130**	**0.160**		**0.152**	**-0.309**
SEN	**0.129**	0.010	**-0.023**	**0.054**	**0.109**	**0.017**	**0.029**	**0.027**	**-0.156**	**0.056**		**-0.287**
SEC	0.006	-0.011	**0.024**	**0.057**	**0.103**	**-0.330**	0.004	**-0.135**	**0.043**	**-0.254**	**-0.212**	

*__Bold text__ indicates significance at the 0.05 level or better, two tailed.

TABLE 2, continued

Summary Statistics

EPS is net income before extraordinary items (#18), scaled by the lagged market value of equity (#25*#199). *RET* is annual returns calculated by compounding the monthly returns beginning in the fourth month after fiscal year end. *DR* is equal to one if *RET* is negative, zero otherwise. *NODEBT* is an indicator variable equal to one if a firm-observation has no debt, zero otherwise. *LEV* is defined as total debt (#9+#34) divided by the market value of total assets. *ADD_LEV* is leverage adjusted by considering off-balance-sheet items minus leverage computed from on the balance sheet. *BTM* is the book-to-market ratio defined as the book value of equity (#60) divided by the market value of equity (#25*#199). *SIZE* is equal to the natural log of total assets (#6). *PUB* is the ratio of public debt to total debt. *LTD* is the long-term debt (#9) to total debt ratio. *CONV* is the ratio of convertible debt (#79) to total long-term debt. *SEN* is the senior debt (#9-#80) to total long-term debt ratio. *SEC* is defined as secured debt (#241) divided by total long-term debt.

TABLE 3: Results of Testing Hypothesis 1(a) and 1(b)

	Zero vs. Non-Zero debt (H1(a))		*Positive Leverage (H1(b))*	*H1 (a) and H1 (b)*
Intercept	0.0171	0.0523	0.0150	0.0382
	(5.57) ***	(12.97) ***	(4.79) ***	(9.41) ***
DR	-0.0123	-0.0129	-0.0113	-0.0122
	(-4.21) ***	(-4.14) ***	(-3.88) ***	(-3.92) ***
RET	-0.0162	-0.0140	-0.0194	-0.0158
	(-5.07) ***	(-4.05) ***	(-5.91) ***	(-4.48) ***
*DR*RET*	0.1446	0.1307	0.1243	0.0985
	(17.90) ***	(15.22) ***	(15.37) ***	(11.32) ***
NODEBT	-0.0128	-0.0339		-0.0358
	(-4.16) ***	(-9.89) ***		(-10.45) ***
*DR*NODEBT*	0.0041	0.0019		-0.0006
	(0.99)	(0.41)		(-0.12)
*RET*NODEBT*	-0.0078	0.0038		0.0059
	(-1.76) *	(0.76)		(1.17)
*DR*RET*NODEBT*	-0.0277	-0.0619		-0.0435
	(-2.35) **	(-4.87) ***		(-3.34) ***
LEV			-0.0488	-0.0197
			(-5.85) ***	(-2.24) **
*DR*LEV*			-0.0162	-0.0132
			(-1.38)	(-1.09)
*RET*LEV*			0.0322	0.0227
			(2.10) **	(1.40)
*DR*RET*LEV*			0.0716	0.1257
			(2.32) **	(3.86) ***
BTM	0.0372	0.0443	0.0486	0.0486
	(12.80) ***	(14.26) ***	(13.04) ***	(14.06) ***
*DR*BTM*	-0.0053	-0.0033	-0.0010	-0.0008
	(-1.37)	(-0.82)	(-0.19)	(-0.18)
*RET*BTM*	0.0494	0.0442	0.0462	0.0410
	(8.09) ***	(6.64) ***	(5.86) ***	(5.65) ***
*DR*RET*BTM*	0.0332	0.0455	0.0142	0.0268
	(3.20) ***	(4.09) ***	(1.07)	(2.17) **
SIZE	0.0052	0.0077	0.0063	0.0077
	(14.58) ***	(18.01) ***	(17.07) ***	(18.05) ***
*DR*SIZE*	0.0062	0.0051	0.0074	0.0054
	(7.58) ***	(5.26) ***	(9.49) ***	(5.99) ***
*RET*SIZE*	-0.0006	-0.0023	-0.0008	-0.0018
	(-0.60)	(-2.03) **	(-0.86)	(-1.84) *
*DR*RET*SIZE*	-0.0068	0.0014	-0.0105	-0.0004
	(-2.87) ***	(0.50)	(-4.32) ***	(-0.16)
IMR		-0.0243		-0.0165
		(-13.78) ***		(-8.95) ***
*DR*IMR*		0.0037		0.0132
		(0.98)		(3.29) ***
*RET*IMR*		0.0134		0.0089
		(3.42) ***		(2.13) **
*DR*RET*IMR*		-0.0392		-0.0717
		(-3.89) ***		(-6.80) ***
Condition Index	15.12	17.36	18.91	20.52
N	85,994	81,560	76,288	81,560
Adj_R2	12.50%	12.93%	13.66%	13.50%

TABLE 3: Results of Testing Hypothesis 1(c)

Off-Balance Sheet Obligations (H1 (c))		
Intercept	-0.0158	-0.0436
	(-4.10) ***	(-8.92) ***
DR	-0.0150	-0.0117
	(-4.11) ***	(-3.04) ***
RET	-0.0257	-0.0171
	(-8.24) ***	(-5.30) ***
*DR*RET*	0.1138	0.1000
	(12.69) ***	(10.52) ***
ADD_LEV	-0.0274	-0.0005
	(-1.99) **	(-0.03)
*DR*ADD_LEV*	0.0264	0.0272
	(1.32)	(1.40)
*RET*ADD_LEV*	0.0064	0.0148
	(0.27)	(0.64)
*DR*RET*ADD_LEV*	0.2412	0.2291
	(4.55) ***	(4.38) ***
LEV	-0.0707	-0.0729
	(-7.41) ***	(-7.26) ***
*DR*LEV*	0.0038	0.0081
	(0.28)	(0.57)
*RET*LEV*	0.0263	0.0144
	(1.68) *	(0.90)
*DR*RET*LEV*	0.1551	0.1769
	(4.96) ***	(5.32) ***
BTM	0.0207	0.0181
	(4.34) ***	(3.59) ***
*DR*BTM*	0.0005	-0.0031
	(0.08)	(-0.44)
*RET*BTM*	0.0284	0.0220
	(3.32) ***	(2.47) **
*DR*RET*BTM*	-0.0212	-0.0232
	(-1.43)	(-1.50)
SIZE	0.0124	0.0134
	(27.70) ***	(27.53) ***
*DR*SIZE*	0.0073	0.0065
	(7.95) ***	(6.82) ***
*RET*SIZE*	0.0014	0.0015
	(1.38)	(1.51)
*DR*RET*SIZE*	-0.0167	-0.0188
	(-5.87) ***	(-6.22) ***
IMR		0.1211
		(11.70) ***
*DR*IMR*		0.0070
		(0.34)
*RET*IMR*		0.0850
		(3.84) ***
*DR*RET*IMR*		-0.1078
		(-1.67) *
Condition Index	19.58	20.99
N	54,360	49,628
Adj_R2	12.08%	12.25%

TABLE 3, continued

Results of Testing Hypothesis 1

All variables except indicators are truncated at the 1st and 99th percentiles by year. Two-tailed, heteroskedasticity-robust t-statistics clustered at the firm level are shown below coefficient estimates. *, **, *** next to the t-statistic indicate that the coefficient estimate is significant at the 0.1, 0.05, and 0.01 level in two-tailed tests. *EPS* is net income before extraordinary items (#18), scaled by the lagged market value of equity (#25*#199). *RET* is annual returns calculated by compounding the monthly returns beginning in the fourth month after fiscal year end. *DR* is equal to one if *RET* is negative, zero otherwise. *NODEBT* is an indicator variable equal to one if a firm-observation has no debt, zero otherwise. *LEV* is defined as total debt (#9+#34) divided by the market value of total assets. *BTM* is the book-to-market ratio defined as the book value of equity (#60) divided by the market value of equity (#25*#199). *SIZE* is equal to the natural log of total assets (#6). *IMR* is the inverse Mill's ratio obtained from the PROBIT fist-stage regression model. *ADD_LEV* is leverage adjusted by considering off-balance-sheet items minus leverage computed from on the balance sheet. *IMR* is the inverse Mill's ratio obtained from the PROBIT fist-stage regression model.

TABLE 4

Results of Testing Hypotheses 2, 3, and 4

	Public vs. Private		*LTD vs. STD*		*Conv vs. Nonconv*
Intercept	0.1073	*Intercept*	-0.0091	*Intercept*	0.0747
	(9.03) ***		(-2.35) **		(7.18) ***
DR	-0.0131	*DR*	-0.0130	*DR*	-0.0245
	(-1.73) *		(-3.36) ***		(-2.15) **
RET	0.0158	*RET*	-0.0100	*RET*	0.0064
	(1.25)		(-2.50) **		(0.51)
*DR*RET*	0.0604	*DR*RET*	0.1272	*DR*RET*	0.0722
	(2.07) **		(12.43) ***		(2.22) **
PUB	-0.0623	*LTD*	0.0560	*CONV*	-0.0627
	(-6.88) ***		(21.65) ***		(-6.42) ***
*DR*PUB*	0.0206	*DR*LTD*	0.0223	*DR*CONV*	0.0127
	(1.55)		(3.53) ***		(0.87)
*RET*PUB*	-0.0117	*RET*LTD*	0.0254	*RET*CONV*	-0.0609
	(-0.62)		(3.57) ***		(-3.33) ***
*DR*RET*PUB*	0.1089	*DR*RET*LTD*	-0.0927	*DR*RET*CONV*	0.1464
	(2.52) **		(-5.42) ***		(3.57) ***
LEV	-0.1743	*LEV*	-0.0760	*LEV*	-0.1313
	(-13.09) ***		(-15.69) ***		(-10.45) ***
*DR*LEV*	-0.0109	*DR*LEV*	-0.0342	*DR*LEV*	-0.0098
	(-0.32)		(-2.90) ***		(-0.30)
*RET*LEV*	0.0111	*RET*LEV*	0.0325	*RET*LEV*	0.0227
	(0.29)		(2.35) **		(0.59)
*DR*RET*LEV*	0.3377	*DR*RET*LEV*	0.0631	*DR*RET*LEV*	0.1938
	(3.50) ***		(2.03) **		(2.34) **
BTM	0.0431	*BTM*	0.0506	*BTM*	0.0774
	(7.88) ***		(13.50) ***		(8.04) ***
*DR*BTM*	-0.0042	*DR*BTM*	-0.0012	*DR*BTM*	-0.0066
	(-0.29)		(-0.23)		(-0.53)
*RET*BTM*	0.0529	*RET*BTM*	0.0431	*RET*BTM*	0.0494
	(2.93) ***		(5.44) ***		(2.74) ***
*DR*RET*BTM*	-0.0367	*DR*RET*BTM*	0.0246	*DR*RET*BTM*	-0.0058
	(-1.00)		(1.82) *		(-0.18)
SIZE	0.0014	*SIZE*	0.0045	*SIZE*	0.0015
	(1.22)		(12.03) ***		(1.62)
*DR*SIZE*	0.0053	*DR*SIZE*	0.0057	*DR*SIZE*	0.0083
	(2.11) **		(7.30) ***		(4.05) ***
*RET*SIZE*	-0.0008	*RET*SIZE*	-0.0024	*RET*SIZE*	-0.0004
	(-0.24)		(-2.65) ***		(-0.17)
*DR*RET*SIZE*	-0.0123	*DR*RET*SIZE*	-0.0065	*DR*RET*SIZE*	-0.0027
	(-1.37)		(-2.63) ***		(-0.48)
Condition Index	25.89	Condition Index	19.42	Condition Index	25.20
N	12,413	N	71,530	N	11,640
AdjR2	14.34%	AdjR2	15.15%	AdjR2	19.01%

TABLE 4, continued

Results of Testing Hypotheses 2, 3, and 4

All variables except indicators are truncated at the 1st and 99th percentiles by year. Two-tailed, heteroskedasticity-robust t-statistics clustered at the firm level are shown below coefficient estimates. *, **, *** next to the t-statistic indicate that the coefficient estimate is significant at the 0.1, 0.05, and 0.01 level in two-tailed tests. *EPS* is net income before extraordinary items (#18), scaled by the lagged market value of equity (#25*#199). *RET* is annual returns calculated by compounding the monthly returns beginning in the fourth month after fiscal year end. *DR* is equal to one if *RET* is negative, zero otherwise. *PUB* is the ratio of public debt to total debt. *LTD* is the long-term (#9) to total debt ratio. *CONV* is the ratio of convertible debt (#79) to total long-term debt. *LEV* is defined as total debt (#9+#34) divided by the market value of total assets. *BTM* is the book-to-market ratio defined as the book value of equity (#60) divided by the market value of equity (#25*#199). *SIZE* is equal to the natural log of total assets (#6).

TABLE 5

Results of Testing Hypotheses 5 and 6

	Senior vs. Subordinated		*Secured vs. Unsecured*	
Intercept	0.0492	*Intercept*	0.0291	
	(4.01)	***	(4.44)	***
DR	-0.0044	*DR*	-0.0132	
	(-0.30)		(-2.04)	**
RET	0.0127	*RET*	-0.0274	
	(0.91)		(-3.09)	***
*DR*RET*	0.1058	*DR*RET*	0.1296	
	(2.48)	**	(7.08)	***
SEN	0.0499	*SEC*	0.0015	
	(4.20)	***	(0.27)	
*DR*SEN*	-0.0072	*DR*SEC*	-0.0094	
	(-0.39)		(-1.10)	
*RET*SEN*	0.0109	*RET*SEC*	0.0242	
	(0.63)		(2.35)	**
*DR*RET*SEN*	-0.0885	*DR*RET*SEC*	-0.0512	
	(-1.65)	*	(-2.01)	**
LEV	-0.1521	*LEV*	-0.0749	
	(-11.90)	***	(-5.60)	***
*DR*LEV*	-0.0372	*DR*LEV*	0.0080	
	(-1.25)		(0.42)	
*RET*LEV*	0.0397	*RET*LEV*	-0.0080	
	(1.59)		(-0.33)	
*DR*RET*LEV*	0.1756	*DR*RET*LEV*	0.2272	
	(1.98)	**	(4.79)	***
BTM	0.0717	*BTM*	0.0180	
	(8.43)	***	(2.81)	***
*DR*BTM*	-0.0177	*DR*BTM*	0.0037	
	(-1.28)		(0.43)	
*RET*BTM*	0.0340	*RET*BTM*	0.0441	
	(2.42)	**	(3.52)	***
*DR*RET*BTM*	0.0075	*DR*RET*BTM*	-0.0434	
	(0.22)		(-2.00)	**
SIZE	-0.0010	*SIZE*	0.0070	
	(-0.86)		(11.11)	***
*DR*SIZE*	0.0060	*DR*SIZE*	0.0055	
	(2.41)	**	(3.74)	***
*RET*SIZE*	-0.0049	*RET*SIZE*	-0.0025	
	(-2.05)	**	(-1.36)	
*DR*RET*SIZE*	-0.0054	*DR*RET*SIZE*	-0.0186	
	(-0.61)		(-3.85)	***
Condition Index	23.75	Condition Index	23.34	
N	8,132	N	22,742	
Adj_R2	17.52%	Adj_R2	13.22%	

TABLE 5, continued

Results of Testing Hypotheses 5 and 6

All variables except indicators are truncated at the 1st and 99th percentiles by year. Two-tailed, heteroskedasticity-robust t-statistics clustered at the firm level are shown below coefficient estimates. *, **, *** next to the t-statistic indicate that the coefficient estimate is significant at the 0.1, 0.05, and 0.01 level in two-tailed tests. *EPS* is net income before extraordinary items (#18), scaled by the lagged market value of equity (#25*#199). *RET* is annual returns calculated by compounding the monthly returns beginning in the fourth month after fiscal year end. *DR* is equal to one if *RET* is negative, zero otherwise. *SEN* is the senior debt (#9-#80) to total long-term debt ratio (#9). *SEC* is defined as secured debt (#241) divided by the total long-term debt (#9). *OFF* is the off-balance-sheet obligation to off-balance-sheet items-adjusted leverage. *LEV* is defined as total debt (#9+#34) divided by the market value of total assets. *ADJ_LEV*, adjusted leverage, is defined as on-balance-sheet debt plus capitalized off-balance-sheet debt divided by the market value of total assets. *BTM* is the book-to-market ratio defined as the book value of equity (#60) divided by the market value of equity (#25*#199). *SIZE* is equal to the natural log of total assets (#6).

TABLE 6: Alternative Measures of Conditional Conservatism: Model (1)

Ball and Shivakumar (2005) model: $ACC_{it} = \alpha_0 + \alpha_1 DC_{it} + \alpha_2 \Delta CFO_{it} + \alpha_3 DC_{it} * \Delta CFO_{it} + \varepsilon_{it}$

H1(a)	*Zero vs. Non-zero Debt*	H1(b)	*Positive Leverage*	H1(a) and H1(b)	*Existence and Quantity of Debt*	H1(c)	*Off Balance Sheet*
Intercept	-0.1032	*Intercept*	-0.0877	*Intercept*	-0.1137	*Intercept*	-0.0200
	(-24.70) ***		(-25.31) ***		(-23.94) ***		(-4.44) ***
DC	0.0075	*DC*	0.0200	*DC*	0.0107	*DC*	0.0287
	(3.85) ***		(7.03) ***		(3.92) ***		(7.40) ***
ΔCFO it	-0.2390	*ΔCFO it*	-0.1329	*ΔCFO it*	-0.2009	*ΔCFO it*	-0.0971
	(-15.25) ***		(-7.62) ***		(-9.97) ***		(-3.95) ***
*DC*ΔCFO it*	0.0863	*DC*ΔCFO it*	0.0397	*DC*ΔCFO it*	0.0354	*DC*ΔCFO it*	0.0615
	(3.46) ***		(1.33)		(1.09)		(1.49)
NODEBTit	0.0100	*LEVit*	-0.0217	*NODEBTit*	0.0026	*ADD_LEVit*	-0.0563
	(2.58) ***		(-3.67) ***		(0.66)		(-6.25) ***
*DC*NODEBTit*	0.0004	*DC*LEVit*	-0.0229	*DC*NODEBTit*	-0.0010	*DC*ADD_LEVit*	-0.0454
	(0.07)		(-2.99) ***		(-0.19)		(-3.52) ***
*ΔCFOit*NODEBTit*	0.0591	*ΔCFOit*LEVit*	-0.3276	*ΔCFOit*NODEBTit*	0.0368	*ΔCFOit*ADD_LEVit*	-0.5273
	(1.86) *		(-5.06) ***		(1.12)		(-9.68) ***
*DC*ΔCFOit*NODEBTit*	-0.1196	*DC*ΔCFOit*LEVit*	0.1976	*DC*ΔCFOit*NODEBTit*	-0.0911	*DC*ΔCFOit*ADD_LEVit*	0.2344
	(-2.41) **		(2.03) **		(-1.76) *		(2.80) ***
				LEVit	-0.0445	*LEVit*	-0.0134
					(-8.07) ***		(-3.10) ***
				*DC*LEVit*	-0.0101	*DC*LEVit*	-0.0118
					(-1.35)		(-1.89) *
				*ΔCFOit*LEVit*	-0.2543	*ΔCFOit*LEVit*	-0.2568
					(-4.14) ***		(-8.55) ***
				*DC*ΔCFOit*LEVit*	0.3473	*DC*ΔCFOit*LEVit*	0.0938
					(3.42) ***		(2.06) **
Condition Index	15.69	Condition Index	12.16	Condition Index	18.76	Condition Index	23.73
N	59,271	N	51,231	N	59,271	N	50,625
Adj_R2	7.95%	Adj_R2	8.68%	Adj_R2	9.06%	Adj_R2	11.89%

TABLE 6, Continued
Alternative Measures of Conditional Conservatism: Model (1)

H2	*Public vs. Private*	H3	*LTD vs. STD*	H4	*Conv vs. Nonconv*	H5	*Senior vs. Subordinated*	H6	*Secured vs. Unsecured*
Intercept	-0.0330	*Intercept*	-0.0962	*Intercept*	-0.0722	*Intercept*	-0.0813	*Intercept*	-0.0621
	(-3.19) ***		(-20.34) ***		(-6.10) ***		(-6.20) ***		(-9.94) ***
DC	0.0139	*DC*	0.0465	*DC*	0.0044	*DC*	0.0268	*DC*	0.0111
	(5.16) ***		(6.66) ***		(0.37)		(2.26) **		(2.13) **
ΔCFO_{it}	-0.2482	ΔCFO_{it}	-0.0454	ΔCFO_{it}	-0.0394	ΔCFO_{it}	-0.2738	ΔCFO_{it}	-0.2120
	(-7.56) ***		(-1.43)		(-0.44)		(-3.31) ***		(-4.04) ***
$DC*\Delta CFO_{it}$	0.1744	$DC*\Delta CFO_{it}$	0.1128	$DC*\Delta CFO_{it}$	-0.1647	$DC*\Delta CFO_{it}$	0.2443	$DC*\Delta CFO_{it}$	0.0832
	(3.19) ***		(1.61)		(-1.26)		(1.56)		(1.07)
PUBit	-0.0144	*LTDit*	0.0123	*CONVit*	-0.0283	*SENit*	0.0311	*SECit*	-0.0007
	(-2.99) ***		(2.56) **		(-3.80) ***		(2.86) ***		(-0.13)
*DC*PUBit*	-0.0018	*DC*LTDit*	-0.0122	*DC*CONVit*	-0.0047	*DC*SENit*	-0.0402	*DC*SECit*	-0.0099
	(-0.20)		(-1.93) *		(-0.36)		(-2.81) ***		(-1.32)
*ΔCFOit*PUBit*	0.0734	*ΔCFOit*LTDit*	-0.0143	*ΔCFOit*CONVit*	0.0413	*ΔCFOit*SENit*	-0.0815	*ΔCFOit*SECit*	0.0936
	(0.83)		(-0.33)		(0.54)		(-0.68)		(1.36)
*DC*ΔCFOit*PUBit*	0.3835	*DC*ΔCFOit*LTDit*	-0.1485	*DC*ΔCFOit*CONVit*	0.4653	*DC*ΔCFOit*SENit*	-0.3626	*DC*ΔCFOit*SECit*	-0.3027
	(2.05) **		(-2.05) **		(2.90) ***		(-1.65) *		(-2.83) ***
Condition Index	23.20	Condition Index	29.00	Condition Index	26.21	Condition Index	21.39	Condition Index	22.27
N	8,585	N	43,583	N	6,587	N	5,497	N	17,586
Adj_R2	8.64%	Adj_R2	8.72%	Adj_R2	7.47%	Adj_R2	9.67%	Adj_R2	8.46%

TABLE 6, continued

Alternative Measures of Conditional Conservatism: Model (1)

All variables except indicators are truncated at the 1st and 99th percentiles by year. Two-tailed, heteroskedasticity-robust t-statistics clustered at the firm level are shown below coefficient estimates. *, **, *** next to the t-statistic indicate that the coefficient estimate is significant at the 0.1, 0.05, and 0.01 level in two-tailed tests. ACC_{it} is total accruals (#123-#304+#124) divided by total assets (#6) at the end of year t-1. ΔCFO_{it} is change in cash flow from operations (#308) divided by total assets at the end of year t-1. *DC* is equal to one if ΔCFO_{it} is negative, zero otherwise. $NODEBT_{it}$ is an indicator variable equal to one if a firm-observation has no debt, zero otherwise. LEV_{it} is defined as the ratio of total debt (#9+#34) to the market value of total assets. ADD_LEV_{it} is leverage adjusted by considering off-balance-sheet items minus leverage computed from on the balance sheet. ACC_{it} is total accruals (#123-#308+#124) divided by total assets at the end of year t-1. ΔCFO_{it} is change in cash flow from operations (#308) divided by total assets at the end of year t-1. *DC* is equal to one if ΔCFO_{it} is negative, zero otherwise. PUB_{it} is the ratio of public debt to total debt. LTD_{it} is defined as the ratio of long-term debt to total debt. $CONV_{it}$ is the ratio of convertible debt (#79) to total long-term debt. SEN_{it} is the senior debt (#9-#80) to total long-term debt ratio at t. SEC_{it} is defined as secured debt (#241) divided by the total long-term debt at t.

TABLE 7: Alternative Measures of Conditional Conservatism: Model (2)

Ball and Shivakumar (2005) model: $\Delta NI_{it} = \alpha_0 + \alpha_1 DN_{it-1} + \alpha_2 \Delta NI_{it-1} + \alpha_3 DN_{it-1} * \Delta NI_{it-1} + \varepsilon_{it-1}$

H1(a)	*Zero vs. Non-zero Debt*	H1(b)	*Positive Leverage*	H1(a) and H1(b)	*Existence and Quantity of Debt*	H1(c)	*Off Balance Sheet*
Intercept	-0.0015	*Intercept*	0.0127	*Intercept*	0.0135	*Intercept*	0.0003
	(-0.59)		(6.13) ***		(6.59) ***		(0.09)
DN	-0.0185	*DN*	-0.0252	*DN*	-0.0236	*DN*	-0.0041
	(-4.83) ***		(-6.37) ***		(-5.96) ***		(-0.80)
ΔNI_{it-1}	0.0001	ΔNI_{it-1}	-0.0148	ΔNI_{it-1}	-0.0322	ΔNI_{it-1}	-0.0904
	(0.00)		(-0.48)		(-1.09)		(-3.06) ***
$DN*\Delta NI_{it-1}$	-0.2883	$DN*\Delta NI_{it-1}$	-0.2396	$DN*\Delta NI_{it-1}$	-0.1706	$DN*\Delta NI_{it-1}$	0.2568
	(-5.29) ***		(-4.33) ***		(-3.24) ***		(5.28) ***
NODEBTit-1	0.0045	*LEVit-1*	-0.0054	*NODEBTit-1*	0.0003	*ADD_LEVit-1*	-0.0060
	(0.85)		(-2.06) **		(0.14)		(-0.70)
*DN*NODEBTit-1*	0.0018	*DN*LEVit-1*	0.0002	*DN*NODEBTit-1*	0.0076	*DN*ADD_LEVit-1*	-0.0225
	(0.45)		(0.03)		(1.84) *		(-1.55)
*ΔNIit-1*NODEBTit-1*	-0.0046	*ΔNIit-1*LEVit-1*	0.1539	*ΔNIit-1*NODEBTit-1*	0.0094	*ΔNIit-1*ADD_LEVit-1*	0.6888
	(-0.17)		(2.96) ***		(0.34)		(6.16) ***
*DN*ΔNIit-1*NODEBTit-1*	0.1501	*DN*ΔNIit-1*LEVit-1*	-1.1036	*DN*ΔNIit-1*NODEBTit-1*	0.0588	*DN*ΔNIit-1*ADD_LEVit-1*	-2.6011
	(2.54) **		(-10.92) ***		(1.06)		(-13.74) ***
				LEVit-1	-0.0047	*LEVit-1*	-0.0078
					(-1.76) *		(-1.70) *
				*DN*LEVit-1*	0.0016	*DN*LEVit-1*	0.0065
					(0.32)		(0.93)
				*ΔNIit-1*LEVit-1*	0.1483	*ΔNIit-1*LEVit-1*	0.1085
					(2.80) ***		(2.02) **
				*DN*ΔNIit-1*LEVit-1*	-1.0207	*DN*ΔNIit-1*LEVit-1*	-0.8101
					(-9.98) ***		(-9.31) ***
Condition Index	23.05	Condition Index	23.64	Condition Index	24.19	Condition Index	24.10
N	89,206	N	83,217	N	89,206	N	59,960
Adj_R2	3.64%	Adj_R2	5.76%	Adj_R2	4.82%	Adj_R2	6.17%

TABLE 7, Continued
Alternative Measures of Conditional Conservatism: Model (2)

H2	*Public vs. Private*	H3	*LTD vs. STD*	H4	*Conv vs. Nonconv*	H5	*Senior vs. Subordinated*	H6	*Secured vs. Unsecured*
Intercept	0.0010	*Intercept*	-0.0011	*Intercept*	0.0208	*Intercept*	0.0123	*Intercept*	0.0002
	(0.22)		(-0.32)		(4.22) ***		(2.33) **		(0.04)
DN	0.0026	*DN*	-0.0023	*DN*	-0.0156	*DN*	-0.0261	*DN*	-0.0065
	(0.73)		(-0.34)		(-2.02) **		(-2.42) **		(-1.09)
ΔNI_{it-1}	-0.1311	ΔNI_{it-1}	-0.0184	ΔNI_{it-1}	-0.1778	ΔNI_{it-1}	0.0674	ΔNI_{it-1}	0.0474
	(-4.78) ***		(-0.44)		(-2.04) **		(0.82)		(1.35)
$DN*\Delta NI_{it-1}$	0.1228	$DN*\Delta NI_{it-1}$	-0.1489	$DN*\Delta NI_{it-1}$	0.1486	$DN*\Delta NI_{it-1}$	-0.5552	$DN*\Delta NI_{it-1}$	-0.1416
	(2.72) ***		(-2.11) **		(1.07)		(-2.64) ***		(-1.33)
PUBit-1	0.0013	*LTDit-1*	0.0137	*CONVit-1*	-0.0205	*SENit-1*	0.0172	*SECit-1*	0.0106
	(0.54)		(5.19) ***		(-4.36) ***		(4.22) ***		(3.87) ***
*DN*PUBit-1*	0.0096	*DN*LTDit-1*	-0.0131	*DN*CONVit-1*	0.0170	*DN*SENit-1*	0.0051	*DN*SECit-1*	0.0054
	(1.64)		(-2.14) **		(1.79) *		(0.52)		(0.83)
*ΔNIit-1*PUBit-1*	0.1773	*ΔNIit-1*LTDit-1*	-0.0847	*ΔNIit-1*CONVit-1*	0.1680	*ΔNIit-1*SENit-1*	-0.1708	*ΔNIit-1*SECit-1*	-0.1087
	(5.09) ***		(-1.96) *		(1.94) *		(-2.18) **		(-1.99) **
*DN*ΔNIit-1*PUBit-1*	-0.1584	*DN*ΔNIit-1*LTDit-1*	0.1982	*DN*ΔNIit-1*CONVit-1*	-0.2660	*DN*ΔNIit-1*SENit-1*	0.5185	*DN*ΔNIit-1*SECit-1*	0.2851
	(-2.23) **		(2.45) **		(-1.68) *		(2.51) **		(2.32) **
Condition Index	20.83	Condition Index	27.29	Condition Index	23.70	Condition Index	27.78	Condition Index	19.00
N	12,323	N	79,611	N	13,398	N	9,266	N	23,283
Adj_R2	7.86%	Adj_R2	3.74%	Adj_R2	6.53%	Adj_R2	8.09%	Adj_R2	5.09%

TABLE 7, continued

Alternative Measures of Conditional Conservatism: Model (2)

All variables except indicators are truncated at the 1st and 99th percentiles by year. Two-tailed, heteroskedasticity-robust t-statistics clustered at the firm level are shown below coefficient estimates. *, **, *** next to the t-statistic indicate that the coefficient estimate is significant at the 0.1, 0.05, and 0.01 level in two-tailed tests. ΔNI_{it} is change in net income before extraordinary items (#18) from t-1 to t, scaled by t-1 period total assets (#6). ΔNI_{it-1} is change in net income before extraordinary items from t-2 to t-1, scaled by t-2 period total assets. *DN* is equal to one if ΔNI_{it-1} is negative, zero otherwise. $NODEBT_{it-1}$ is an indicator variable equal to one if a firm-observation at t-1 has no debt, zero otherwise. LEV_{it-1} is defined as the lagged ratio of total debt (#9+#34) to the market value of total assets. ADD_LEV_{it-1} is the lagged leverage adjusted by considering off-balance-sheet items minus leverage computed from on the balance sheet. PUB_{it-1} is the lagged ratio of public debt to total debt. LTD_{it-1} is defined as the lagged ratio of long-term debt (#9) to total debt. $CONV_{it-1}$ is the lagged ratio of convertible debt (#79) to total long-term debt. SEN_{it-1} is the senior debt (#9-#80) to total long-term debt ratio at t-1. SEC_{it-1} is defined as secured debt (#241) divided by the total long-term debt at t-1.

TABLE 8
Short-term Debt vs. Long-term Debt

Sub-samples	*High Credit Rating=1*	*High Credit Rating=0*	*No Credit Rating*
Intercept	0.0561	0.0402	-0.0513
	(6.74) ***	(2.96) ***	(-9.30) ***
DR	0.0024	-0.0366	-0.0090
	(0.22)	(-2.56) **	(-1.94) *
RET	0.0156	-0.0117	-0.0237
	(0.78)	(-0.68)	(-5.13) ***
*DR*RET*	-0.0221	0.0550	0.1328
	(-0.40)	(1.18)	(12.39) ***
LTD	-0.0052	0.0526	0.0683
	(-1.13)	(7.15) ***	(19.19) ***
*DR*LTD*	-0.0224	0.0064	0.0344
	(-2.34) **	(0.35)	(3.78) ***
*RET*LTD*	-0.0243	-0.0080	0.0202
	(-1.81) *	(-0.41)	(2.09) **
*DR*RET*LTD*	0.0928	-0.1265	-0.0815
	(3.07) ***	(-2.67) ***	(-3.41) ***
LEV	-0.0143	-0.1677	-0.0647
	(-0.62)	(-7.33) ***	(-4.88) ***
*DR*LEV*	0.0290	0.0950	-0.0319
	(0.81)	(2.84) ***	(-1.68) *
*RET*LEV*	0.0302	0.0425	0.0121
	(0.53)	(1.29)	(0.49)
*DR*RET*LEV*	-0.0131	0.2933	0.1607
	(-0.08)	(3.67) ***	(3.68) ***
BTM	0.0184	0.0121	0.0060
	(1.92) *	(1.02)	(0.88)
*DR*BTM*	0.0153	0.0001	0.0097
	(0.85)	(0.01)	(1.15)
*RET*BTM*	0.0771	0.0171	0.0425
	(2.27) **	(0.95)	(3.22) ***
*DR*RET*BTM*	0.0968	-0.0341	-0.0272
	(1.01)	(-1.10)	(-1.46)
SIZE	-0.0013	0.0024	0.0122
	(-1.32)	(1.64)	(18.52) ***
*DR*SIZE*	-0.0043	0.0013	0.0055
	(-1.95) *	(0.35)	(3.87) ***
*RET*SIZE*	-0.0048	-0.0064	0.0008
	(-1.36)	(-1.52)	(0.51)
*DR*RET*SIZE*	0.0033	-0.0044	-0.0108
	(0.41)	(-0.40)	(-2.51) **
N	3,716	8,315	35,064
Adj_R2	10.41%	12.23%	15.22%

TABLE 8, continued

Short-term Debt vs. Long-term Debt

All variables except indicators are truncated at the 1st and 99th percentiles by year. Two-tailed, heteroskedasticity-robust t-statistics clustered at the firm level are shown below coefficient estimates. *, **, *** next to the t-statistic indicate that the coefficient estimate is significant at the 0.1, 0.05, and 0.01 level in two-tailed tests. High Credit Rating equals one if the firm's S&P Long-term issuer credit rating (#280) is A- or higher. *EPS* is net income before extraordinary items (#18), scaled by the lagged market value of equity (#25*#199). *RET* is annual returns calculated by compounding the monthly returns beginning in the fourth month after fiscal year end. *DR* is equal to one if *RET* is negative, zero otherwise. *CONV* is the ratio of convertible debt (#79) to total long-term debt. *LEV* is defined as total debt (#9+#34) divided by the market value of total assets. *BTM* is the book-to-market ratio defined as the book value of equity (#60) divided by the market value of equity (#25*#199). *SIZE* is equal to the natural log of total assets (#6).

TABLE 9
Convertible Debt vs. Non-convertible Debt

Sub-samples	*High Credit Rating*	*Investment Grade*	*Non-investment Grade and No Credit Rating*
Intercept	0.1046	0.0989	0.0150
	(5.04) ***	(7.19) ***	(1.01)
DR	-0.0175	0.0205	-0.0139
	(-0.75)	(1.35)	(-0.81)
RET	0.0110	0.0548	0.0059
	(0.31)	(2.63) ***	(0.37)
*DR*RET*	0.0067	0.0138	0.1236
	(0.09)	(0.21)	(2.85) ***
CONV	-0.0339	-0.0284	-0.0466
	(-2.98) ***	(-3.73) ***	(-3.39) ***
*DR*CONV*	-0.0082	-0.0001	-0.0043
	(-0.54)	(0.00)	(-0.20)
*RET*CONV*	-0.0144	-0.0107	-0.0504
	(-0.40)	(-0.72)	(-2.39) **
*DR*RET*CONV*	-0.1463	-0.0794	0.0883
	(-2.23) **	(-1.72) *	(1.62)
LEV	-0.0528	-0.0180	-0.1614
	(-2.01) **	(-1.01)	(-9.25) ***
*DR*LEV*	-0.0230	0.0729	0.0055
	(-0.33)	(2.30) **	(0.12)
*RET*LEV*	0.0096	0.0965	0.0768
	(0.11)	(2.77) ***	(1.67) *
*DR*RET*LEV*	-0.0425	-0.0775	0.2211
	(-0.21)	(-0.68)	(2.11) **
BTM	0.0165	0.0373	0.0561
	(0.94)	(2.66) ***	(3.45) ***
*DR*BTM*	0.0471	-0.0475	0.0024
	(1.72) *	(-2.16) **	(0.11)
*RET*BTM*	0.0781	-0.0284	0.0195
	(1.89) *	(-1.05)	(0.71)
*DR*RET*BTM*	0.1576	0.0148	-0.0053
	(1.53)	(0.21)	(-0.11)
SIZE	-0.0047	-0.0068	0.0093
	(-2.63) ***	(-4.73) ***	(6.31) ***
*DR*SIZE*	-0.0023	-0.0031	0.0069
	(-0.62)	(-1.08)	(1.98) *
*RET*SIZE*	-0.0036	-0.0036	-0.0009
	(-0.72)	(-1.01)	(-0.28)
*DR*RET*SIZE*	0.0006	0.0117	-0.0066
	(0.05)	(0.87)	(-0.77)
N	687	1,566	5,953
Adj_R2	15.81%	10.46%	14.34%

TABLE 9, continued

Convertible Debt vs. Non-convertible Debt

All variables except indicators are truncated at the 1st and 99th percentiles by year. Two-tailed, heteroskedasticity-robust t-statistics clustered at the firm level are shown below coefficient estimates. *, **, *** next to the t-statistic indicate that the coefficient estimate is significant at the 0.1, 0.05, and 0.01 level in two-tailed tests. *EPS* is net income before extraordinary items (#18), scaled by the lagged market value of equity (#25*#199). *RET* is annual returns calculated by compounding the monthly returns beginning in the fourth month after fiscal year end. *DR* is equal to one if *RET* is negative, zero otherwise. *CONV* is the ratio of convertible debt (#79) to total long-term debt. *LEV* is defined as total debt (#9+#34) divided by the market value of total assets. *BTM* is the book-to-market ratio defined as the book value of equity (#60) divided by the market value of equity (#25*#199). *SIZE* is equal to the natural log of total assets (#6).

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