2012

The role of accounting conservatism in firms' financial decisions

Jimmy Kiat Bee LEE
Singapore Management University, jimmylee@smu.edu.sg

The Role of Accounting Conservatism in Firms' Financial Decisions

Jimmy Lee*

School of Accountancy
Singapore Management University
60 Stamford Road
Singapore 178900
jimmylee@smu.edu.sg

First Draft: September 7, 2010
Current Draft: February 9, 2012

* This paper is based on the second chapter of my dissertation at Northwestern University. I specially thank my dissertation chair, Robert Magee, for his dedicated guidance and counsel. I also thank my other committee members, Tjomme Rusticus, Paola Sapienza and Beverly Walther, for their valuable advice and encouragement. I am indebted to Craig Chapman, James Sinclair (FARS discussant), Wan Wongsunwai and seminar participants at Northwestern University, HKUST, Singapore Management University, University of Illinois, University of Oregon and the conference particpants at the 2012 AAA FARS midyear meeting for their helpful comments and suggestions. I also gratefully acknowledge financial support from the Kellogg Graduate School of Management and the SMU School of Accountancy Research (SOAR) Centre. All remaining errors are mine.

The Role of Accounting Conservatism in Firms' Financial Decisions

Abstract

This paper investigates whether financial reporting conservatism is related to firms' financial flexibility and their access to capital. If conservatism facilitates monitoring and governance by capital providers, they should be more willing to extend financing and increase firms' access to capital. However, because conservatism leads to systematic understatement of net worth and weakens the appearance of firms' balance sheet strength, it could also reduce firms' access to capital. This study tests these two opposing views of the relationship between conservatism and firms' financial flexibility. Results indicate that firms with greater reporting conservatism exhibit less flexibility in their corporate liquidity management, in their debt or equity issuance decisions, in the sensitivity of their investments to financing constraints and in their payout policies. Overall, results suggest that although firms enjoy lower debt contracting costs by reporting conservatively, they forgo some flexibility in future access to capital, and this affects their financial decisions.

Key words: Financial Reporting Conservatism, Access to Capital, Financial Constraints

1. Introduction

Financial reporting conservatism is one of the most prominent qualitative attributes of accounting, and its economic role and continued existence have been a focus of debate and research attention among regulators, practitioners and academics (e.g., FASB [2005], Watts [2003]). Standard setters prefer financial accounting information to be neutral and free of bias, and they oppose including the concept of conservatism as a desirable qualitative characteristic of accounting information in the conceptual framework (FASB [2005]). On the other hand, researchers reason that accounting conservatism exists in response to economic demand for verifiable and timely information that mitigates agency problems in contracting, and in response to changes in the regulatory and litigation environments (Holthausen and Watts [2001], Watts [2003]). In empirical studies, researchers generally find evidence in support of the contracting and governance role of conservatism in both equity (LaFond and Roychowdhury [2008]; LaFond and Watts [2008]) and debt markets (Zhang [2008]). However, although prior work asserts the role and benefits of accounting conservatism to lenders and borrowers in external financial contracting, there is scant research examining how reporting conservatism shapes firms' internal financial decisions. The effective allocation of capital, the efficient management of corporate liquidity, the choice of debt or equity capital and the design of payout policies are important financial decisions in which accounting information can play an important role. This paper contributes to existing literature and investigates whether reporting conservatism is related to firms' financial flexibility and their financial decisions.

Financial flexibility is the ability of a firm to access and restructure its financing at a low cost. Financially flexible firms are able to avoid financial distress in the face of negative shocks and to fund investment readily when profitable opportunities arise (Gamba and Triantis [2008], p.2263). In existing literature, it is reasoned that accounting conservatism assists monitoring and governance by limiting managers' ability to overstate financial performance opportunistically and thus facilitates the transfer of control rights to capital providers when covenant or performance thresholds are not satisfied (LaFond and Watts [2008], Zhang [2008]). If conservatism assists monitoring and governance by capital providers, debt or equity providers should be more willing to extend financing and increase firms' access to capital. If these conditions hold, I predict firms with greater reporting conservatism should exhibit greater financial flexibility ("Efficient Contracting View").

On the other hand, conservative accounting leads to a cumulative understatement of net assets in the balance sheet and more timely recognition of losses versus gains in the income statement. Thus, the book leverage ratio (debt-to-asset) of the firm is systematically overstated compared to the true economic

leverage, and net worth is systematically understated compared to the true economic firm value. Both of these effects weaken the appearance of the firms' balance sheet strength and may therefore reduce firms' access to capital. Therefore, I predict firms that have adopted greater reporting conservatism should experience less financial flexibility ("Distortion of Information View").

This study tests these two opposing views of the relationship between conservatism and financial flexibility and its resulting effect on corporate financial activities. This inquiry is important because although prior work claims that reporting conservatism benefits borrowers by lowering initial interest rates, it also finds that conservatism shifts power to the lenders by increasing the likelihood of covenant violations (Zhang [2008]). As such, a finding that conservatism is associated with lower interest rates is not conclusive evidence of debt contracting efficiency because lenders will accept a lower interest rate in return for more frequent transfer of control rights (Gigler et al. [2009]). Clearly, a debt contract that has a low interest rate but gives lenders decision rights in all states of the world is not efficient. Therefore, besides using the interest rate as a criterion for evaluating the contractual benefits of reporting conservatism, it is imperative to examine how conservatism relates to financial flexibility if we are to achieve a better understanding of whether conservatism actually increases debt contracting efficiency.

To test these predictions, I first examine whether accounting conservatism is related to corporate cash holdings and firms' propensity to save. When capital markets are frictionless, firms always have access to financing for their positive net present value (NPV) projects, and there is little incentive for cash holdings beyond holding cash for transaction purposes (Baumol [1952], Miller and Orr [1966]). However, when firms face uncertainty regarding future access to capital to fund their investments, they hold more cash for precautionary purposes (Opler et al. [1999]). If reporting conservatism facilitates financial contracting, I expect firms with greater reporting conservatism to have better access to financing, and to hold less precautionary cash. Using a measure of conservatism derived from Dichev and Tang [2008], I find that firms that have a greater propensity to recognize expenses ahead of their associated revenue (more conservative firms) hold more cash, even after controlling for industry effects. In addition, firms that exhibit greater reporting conservatism have a greater propensity to save. The latter result suggests that firms with greater reporting conservatism exhibit less financial flexibility and hence accumulate cash in order to build up internal capital to finance future investment opportunities when future financing is uncertain (Almeida et al. [2004]).

Next, I examine whether accounting conservatism is related to firms' decisions to issue debt or equity. If conservatism eases financial friction, I expect conservative firms to raise capital through the debt market, given that issuing debt is less costly than equity. However, if conservatism exacerbates financial constraints, I expect conservative firms to raise capital through the equity market in order to strengthen their balance sheet and to increase debt capacity. Moreover, I expect these financially constrained firms to have less flexibility in timing their equity issuance during good macroeconomic conditions. Consistent with the latter prediction, I find that firms that exhibit greater reporting conservatism are more likely to issue equity, but they are less likely to do so following stock price run-ups.

In additional tests, I examine whether these financial constraints associated with greater reporting conservatism affect firms' investment and payout policies. I find that firms with greater reporting conservatism also exhibit greater cash flow sensitivity of investment, suggesting that even though reporting conservatism limits over-investment (Francis and Martin [2010]), it may result in under-investment in positive NPV projects (Roychowdhury [2010]). I also find that firms with greater reporting conservatism have lower dividend changes following positive cash changes, but reporting conservatism is not differentially associated with stock repurchase changes following positive cash changes. These results suggest that firms with greater reporting conservatism likely experience less financial flexibility and hence are more reluctant to commit to a consistent higher payout policy via dividends and are also more inclined to distribute excess cash via repurchases that require less commitment for future payouts.

The results are robust with regard to both firm-year specific and cross-sectional regression specifications, inclusion of industry and time fixed-effects, controlling for other governance mechanisms and using an alternative measure of reporting conservatism (Basu [1997]). To mitigate the possibility that my results may have been driven by reverse causality, I include firm fixed-effects that control for time-invariant firm characteristics and conduct lead-lag analyses in additional robustness tests. The main inferences are unchanged. Overall, the analyses suggest that firms with greater accounting conservatism likely face less flexibility in their corporate financial activities. These results also suggest that although firms enjoy lower debt contracting costs and mitigate agency conflicts by reporting conservatively (e.g., Zhang [2008]), they forgo some financial flexibility in future access to capital, and this affects their financial decisions.

This paper extends the existing literature in several ways. First, this study relates to studies examining the role of accounting conservatism. Prior research generally claims that conservatism reduces the cost of debt. However, these studies' findings are only generalizable to firms actually able to obtain the desired amount of capital through debt markets. Firms face not only price constraints (interest rates) but also quantity constraints (amount of borrowing) in financing, and hence, cost of debt cannot be the sole criterion for evaluating the benefits of conservatism. I extend prior findings by documenting the relationship between reporting conservatism and firms' financial decisions, which ultimately determine their liquidity management, choice of financing, investment-cash flow sensitivity, and payout policies. This analysis is important to our complete understanding about how financial reporting behavior relates both to firms' external financial contracting and to their internal corporate financial activities.

Second, this study relates to the existing literature examining the real effects of accounting. In prior work, considerable effort has been made to document the impact of financial reporting quality on the cost of equity or debt capital (e.g., Francis et al. [2004]). However, there is a dearth of research examining the impact of financial reporting on financial decisions. In their review paper, Armstrong et al. [2010, p.214] write, "[w]e also encourage researchers to explore the more fundamental decision of how financial reporting influences the firm's decision regarding the type of financing to pursue." This study makes a first step in this direction.

Armstrong et al. [2010, p.214) also note that "[t]here has been relatively little research on the role of financial reporting in determining whether a firm can obtain debt financing" and "[w]e conjecture that this lack of research is at least in part attributable to the difficulty identifying firms that would like to borrow (or obtain minority shareholders) but are unable to find a willing lender and therefore do not participate in the debt markets." If financial reporting affects lending decisions, it should also affect firms' access to capital and their propensity to save and hold cash. Thus, this study extends the existing literature by indirectly examining the role of financial reporting in the lending decision by inferring firms' access to capital through their financial activities.

Finally, this study contributes to the corporate finance literature. Financial economists and the business press have been interested in why firms hold increasingly larger cash reserves over time (Bates et al. [2009]). Finding and explaining an association between accounting conservatism and firms' propensity to hold cash enhances our understanding of this important topic.

A related paper by Louis et al. [2009] examines accounting conservatism and the market valuation of cash holdings, and their results are complementary to mine. Specifically, these authors find that the value of cash holdings is higher for firms with greater reporting conservatism because of better governance associated with conservatism, and this result may partially explain my finding that conservative firms hold more cash. However, their results cannot fully explain my finding that firms with greater reporting conservatism appear to exhibit less financial flexibility in their debt or equity issuance decision, investment-cash flow sensitivity, and payout policies.

2. Related Literature and Hypothesis Development

2.1 Accounting Conservatism and Financial Flexibility: Efficient Contracting View

Prior literature defines accounting conservatism as "the differential verifiability required for recognition of profit versus losses (Watts [2003], p.208)."[1] The consequence of reporting conservatism is the accelerated recognition of losses versus gains and the recognition of expenses ahead of their associated revenue, both of which lead to systematic understatement of net asset values.[2] In prior work, it is reasoned that reporting entities practice conservatism in response to economic demand for verifiable and timely information that mitigates agency problems in contracting, and in response to changes in the regulatory and litigation environments (Holthausen and Watts [2001], Watts [2003]).

An extensive body of accounting literature examines the role of conservatism in efficient debt contracting. Ball and Shivakumar [2005] identify two distinct concepts of conservatism that mitigate manager-debtholders agency conflicts: (a) imposing a downward bias on reported net worth to alleviate managers' tendency to bias net worth upwards; and (b) committing managers to recognizing bad news in a timely manner. These two aspects of conservatism constrain managers' incentives to transfer wealth to shareholders to the detriment of debtholders[3] and provide timely information to debtholders that allows transfer of control rights to them when firms' financial condition deteriorates and covenants are violated.

[1] According to the FASB Statement of Concepts No. 2, conservatism is defined as "a prudent reaction to uncertainty to try to ensure that uncertainty and risks inherent in business situations are adequately considered."

[2] In this discussion, I do not differentiate between conservatism in accounting methods (e.g., expensing of research and development costs, choice of depreciation method) from conservatism in the recognition of losses versus gains (or asymmetric timeliness). My empirical measures will reflect these two sources of accounting conservatism (see section 3.1 and section 6.4 respectively).

[3] For example, managers could substitute assets towards high risk, negative NPV projects that benefit shareholders in only good states of the world or distribute assets to shareholders, both of which reduce the expected value of debtholders' claim.

Two key assumptions underlie debtholders' preference for reporting conservatism: (a) debtholders have asymmetric payoffs with respect to the firms' net assets and hence are more concerned with information about the lower ends of the earnings and net assets distribution; and (b) debt contracts and their associated covenants are written over accounting numbers, and it is costly to write contracts that adjust these numbers (Guay and Verrecchia [2006], Watts [2003]).

Empirically, Zhang [2008] finds that conservatism is associated with lower initial interest rates and higher likelihood of covenant violations following large negative shocks, which she interprets as suggestive of the contractual benefits of conservatism to both lenders and borrowers. Subsequent work also finds empirical support for the role of conservatism in mitigating firms' and debtholders' conflicts in private debt markets (Beatty et al. [2008], Wittenberg-Moerman [2008]), public debt markets (Nikolaev [2010]), and syndicated loan markets (Ball et al. [2008]).

Outside debt contracting settings, prior work also examines the governance role of accounting conservatism. LaFond and Watts [2008] posit that conservatism mitigates information asymmetry between managers and shareholders and limits managers' ability to manipulate and overstate financial performance. They find that accounting conservatism increases in response to an increase in information asymmetry. Francis and Martin [2010] and Srivastava and Tse [2009] find that acquisition profitability and the likelihood of early termination of unprofitable projects are increasing in timely loss recognition, respectively. These results are consistent with the idea that conservatism provides important information to shareholders that disciplines and constrains opportunistic managers' incentive to engage in value-destroying activities.

Overall, prior studies suggest that accounting conservatism plays an important informational and governance role in reducing debt contracting costs and mitigating manager-shareholder conflicts. Thus for firms that report conservatively, I expect debt and equity capital providers to be more willing to extend capital when needed, hence increasing firms' financial flexibility. Based on the above discussion, I present my first hypothesis as follows:

H1A: *("Efficient Contracting View") Firms with greater financial reporting conservatism exhibit greater financial flexibility*.

2.2 Accounting Conservatism and Financial Constraints: Distortion of Information View

An alternative view is that accounting conservatism is associated with lower financial flexibility. As discussed earlier, the consequence of reporting conservatism is the cumulative understatement of net assets in the balance sheet and more timely recognition of losses versus gains. When financial statements delay the recognition of good news relative to bad news, the book leverage ratio (debt-to-asset) of the firm is systematically overstated as compared to the true economic leverage, and net worth is systematically understated as compared to the true economic firm value. Both effects diminish credit standing and debt capacity and may thus reduce firms' ability to raise capital in the future and decrease their financial flexibility. Furthermore, because net worth covenants are relatively common in debt contracts[4] and violation of net worth covenants is the most frequent infringement that leads to technical defaults (Beneish and Press [1993]), the resulting understatement of net worth from reporting conservatism is detrimental to financial flexibility. This result is important to firms' financial decisions in light of the strong emphasis that managers place on financial flexibility.[5]

In this reasoning, I posit that lenders do not undo the bias in conservative financial reporting at the time of debt contracting because conservatism facilitates their monitoring throughout the contract duration and increases the expected value of their financial claim.[6] Alternatively, it may be too costly for lenders and borrowers to initiate and write contracts that adjust reported accounting numbers to reverse this bias completely.[7] Finally, because of information problems within lending institutions, lenders prefer to contract on "hard information" (Stein [2002]), implying that lenders do not adjust the effects of reporting conservatism in audited financial statements completely.

[4] For example, Li [2010] documents in his sample of private loan agreements from 1996-2005 that 45.2% of loans include net worth covenants.

[5] In a survey of finance managers' debt financing decisions, Graham and Harvey [2001] document that financial flexibility is the most important factor driving firms' choice of debt-equity ratios.

[6] Also, because of information asymmetry, the lending market may not be sufficiently perfect such that new lenders can reduce the bargaining power of existing lenders.

[7] One possible solution to satisfy lenders' demand for conservatism is to include contract modifications (for example, via income escalators) instead of requiring firms' commitment to report conservatively at the time of debt contracting. However, this may not be feasible since Beatty et al. [2008] document that contract modifications are not perfect substitutes for reporting conservatism in debt contracts.

Moreover, reporting conservatism may create contracting inefficiencies that alter borrowers' financial decisions. Guay and Verrecchia [2006] discuss how conservatism that recognizes bad news in a timely manner but good news in an untimely manner can create informational inefficiencies.[8] Gigler et al. [2009] further demonstrate in their theoretical model that accounting conservatism, which increases the probability of a low signal in both good and bad states, can actually reduce the information content of bad reports and increase the probability of false alarms, both of which ultimately reduce the efficiency of debt contracts. As Roychowdhury [2010] highlights, conservatism may also lead to dysfunctional behavior if managers' actions are based on the anticipated (negative) effect of conservatism on earnings and higher probability of future covenant violations.[9] The above suggests that reporting conservatism that reduces financial flexibility may therefore affect firms' financial decisions when managers behave in anticipation of the effect of conservatism on reported earnings.[10]

The above discussion does not require the assumption that firms are not behaving optimally. It is possible that firms trade off the benefits and costs of reporting conservatism in efficient contracting. By reporting conservatively, firms enjoy lower interest rates but they cede greater control to lenders and bear the costs of higher probability of covenant violations which decreases their financial flexibility. Based on the above discussion, I present my second hypothesis as follows:

H1B: *("Distortion of Information View") Firms with greater financial reporting conservatism exhibit lower financial flexibility*.

[8] In Guay and Verrecchia's [2006] simple illustration, in a setting where there are three possible states of the world (bad, typical and good), conservative accounting reports bad news truthfully, but reports typical and good news as typical news, which results in information loss.

[9] The potential costs of covenant violations to both managers and the firm are renegotiation costs, interest rate increases, restriction on investments and financing, among others (Beneish and Press [1993]). Chava and Roberts [2008] also find that capital investment declines sharply following covenant violations, which provides corroborating evidence that covenant violations are indeed costly.

[10] Graham and Harvey [2001] document that earnings per share (EPS) dilution is the most important factor in managers' decision to issue equity, which they interpret as 'intriguing' since the textbook view is that EPS is not diluted if the new equity earns the required rate of return. Bens et al. [2003] also find that firms repurchase stocks to manage diluted EPS associated with outstanding employee stock options. The above examples highlight the possibility that managers are fixated on reported numbers and base their decisions on them, even though reported numbers may not reflect firms' true economic conditions.

2.3 Financial Flexibility and Firms' Financial Decisions

Firms' financial flexibility and their ability to access capital are difficult to measure empirically.[11] However, financial flexibility should manifest in firms' financial decisions. My empirical strategy to test the two opposing predictions of conservatism's relation with financial flexibility is to triangulate my findings by examining various corporate financial activities, namely, corporate liquidity management, decision to issue debt or equity, cash flow sensitivity of investments and payout decisions. The discussion of the relation between conservatism and these financial activities follows.

2.3.1 Corporate liquidity management. The first financial decision I examine is corporate liquidity management. If capital markets are frictionless, firms always have access to financing for their positive NPV projects and there is little incentive for cash holdings beyond holding cash to minimize transaction costs associated with converting non-cash financial assets into cash for payments (Baumol [1952], Miller and Orr [1966]). However, when firms face uncertainty regarding future access to capital to fund their investments, they hold more cash for precautionary purposes (Opler et al. [1999]). Precautionary cash holdings are more valuable for financially constrained firms because they allow value-increasing investments to be made that might otherwise be bypassed due to lack of available resources (Denis and Sibilkov [2010]).

However, holding cash is not costless. Even though firms derive interest income from cash holdings, that is usually less than the interest expense saved from reducing debt. Also, there is an agency cost of free cash flow because entrenched managers derive benefits from retaining cash as it facilitates perquisites consumption and empire building (Jensen [1986]). Consistent with the agency cost explanation, Faulkender and Wang [2006] find that the average marginal value of a dollar of cash across all firms is only \$0.94, and the value of cash holdings is even lower for firms with greater agency conflicts between managers and shareholders (Dittmar and Mahrt-Smith [2007], Pinkowitz et al. [2006]). Hence, precautionary cash holding is more desirable to the extent that firms anticipate future financing difficulty.

If reporting conservatism facilitates financial contracting, I expect firms with greater reporting conservatism to have better access to financing and to hold less precautionary cash (Efficient Contracting

[11] For instance, firms with observed low levels of debt may imply either high financial flexibility due to low leverage, or imply low financial flexibility because these firms may want to obtain debt financing but are unable to do so.

View). Likewise, if reporting conservatism reduces financial flexibility, I expect firms with greater reporting conservatism to hold more cash (Distortion of Information View).[12]

Besides examining firms' aggregate cash holding, I examine firms' propensity to save cash from free cash flows. Almeida et al. [2004] posit that firms' propensity to accumulate cash from cash inflows reflects the effect of financial constraints. They find that after controlling for other sources and competing uses of funds (e.g., capital expenditures, acquisitions and investment in working capital), firms with greater financial constraints are more likely to accumulate cash out of cash inflows in order to build up internal capital to finance future investment opportunities.[13] Consistent with this conjecture, Campello et al. [2010] find that financially constrained firms built cash reserves as a buffer against potential credit supply shocks during the global financial crisis of 2008. Based on the Efficient Contracting View (Distortion of Information View), if accounting conservatism reduces (increases) financial frictions and hence increases (reduces) financial flexibility, I expect firms with greater financial reporting conservatism to have a lower (higher) propensity to save.

2.3.2 Decision to issue debt or equity. The second financial decision I examine is the choice of debt or equity financing. If conservatism eases financial frictions, I expect conservative firms to raise capital through the debt market, given that issuing debt is less costly than equity.[14,15] However, if conservatism understates net worth and increases financial constraints, I expect conservative firms to raise capital through the equity market in order to strengthen their balance sheet and to increase debt capacity.[16]

[12] Note that the availability of credit lines is not able to fully alleviate this financial friction since credit lines may be conditionally reduced upon covenant violations (Sufi [2009]), where violations are also more likely for conservative firms (Zhang [2008]).

[13] In Almeida et al.'s [2004] model, the propensity to save for financially unconstrained firms is indeterminate since unconstrained firms are already investing at the first-best levels and their financial policy is only determined by the decision to pay a dividend either today or tomorrow, which has no implications on firm value ("irrelevance of liquidity").

[14] Besides having higher front-end transaction costs, equity is more informationally sensitive compared to debt and therefore associated with greater security underpricing (Myers and Majluf [1984]).

[15] Ball et al. [2008] find that financial reporting conservatism is shaped by debt markets rather than equity markets. This suggests firms with greater conservatism are catering their financial reporting to debtholders' demand, which implies that conservative firms are more likely to raise capital through the debt market.

[16] A possible question is why financially constrained firms would still issue equity if they could not obtain debt financing at a reasonable cost. To this point, Korajczyk and Levy [2003] find that financially constrained firms are not able to time their equity issuances during good macroeconomic conditions and may thus have to "take what they

Consistent with this reasoning, Kim and Weisbach [2008] find that firms' decision to issue equity is partly driven by their desire to build up cash reserves, presumably in anticipation of future financing needs. Therefore, based on the Efficient Contracting View (Distortion of Information View), firms with greater financial reporting conservatism are more (less) likely to issue debt than equity.

According to the static trade-off theory of capital structure where firms balance the benefits of interest tax shields against the costs of financial distress, it is unclear whether financially unconstrained firms will necessarily choose to issue debt over equity, since financing choice is dependent on whether the firm is under or over-leveraged at the time of financing. In order to account for this trade-off, I explicitly control for firms' deviation from a target leverage ratio in my empirical test examining the debt or equity issuance decision.

2.3.3 Cash flow sensitivity of investments. The third financial attribute I examine is firms' investment-cash flow sensitivity.[17] An extensive body of literature in economics and finance studies how financial frictions affect firms' investment decisions. Theoretically, in perfect capital markets, firms invest until the marginal return on investment is equivalent to the cost of capital and adjustment costs (Hayashi [1982]). Hence, investments should vary only with profitable opportunities since firms are always able to fund their projects. When there are financial frictions and firms face funding constraints, investments also correlate with the availability of cash flows (Fazzari et al. [1988]). If reporting conservatism eases financial constraints and increases firms' access to capital, then firms with greater reporting conservatism should experience lower investment-cash flow sensitivity (Efficient Contracting View). Conversely, if reporting conservatism reduces financial flexibility, firms with greater reporting conservatism should exhibit higher investment-cash flow sensitivity (Distortion of Information View).

2.3.4 Payout decisions. The final financial decision I examine is firms' payout policies. Following positive cash changes and after financing for investments, I expect firms with greater financial flexibility to have greater ability to increase their payout to shareholders, either via dividend or stock repurchase increases (DeAngelo et al. [2009], Harford et al. [2008]). Based on the Efficient Contracting View (Distortion of Information View), if reporting conservatism reflects greater (lower) financial flexibility, I

---

can get," suggesting that constrained firms may have to raise equity regardless of timing and possibly when it is highly costly.

[17] I classify firms' cash flow sensitivity of investments as a financial decision in this paper because firms' ability to invest is ultimately affected by their ability to obtain capital, which is a financial decision.

expect dividend payouts/repurchase changes to be more (less) positively associated with prior cash changes for firms with greater reporting conservatism.

3. Research Design

3.1 Measure of Accounting Conservatism

My main measure of reporting conservatism is derived from Dichev and Tang [2008]. The authors propose a measure of reporting conservatism based on the matching of revenue with past, present and future expenses:

$$REVENUE_t = \alpha_0 + \alpha_1 * EXP_{t-1} + \alpha_2 * EXP_t + \alpha_3 * EXP_{t+1} + \varepsilon_t \quad (1)$$

where EXP is expenses and is defined as revenue less earnings before extraordinary items, and all variables are scaled by average total assets. In this model, perfect matching of revenue with contemporaneous expenses for a profitable entity implies that $\alpha_2 > 1$ and both α_1 and α_3 equal 0. If financial reporting is conservative, expenses will be recognized before the associated revenue is recognized, and hence we should observe a positive relationship between past expenses and current revenue. Thus, I use α_1 as my firm-year specific measure of reporting conservatism in this paper. This measure captures the understatement of net assets due to accounting methods and discretion because recognizing expenses before their associated revenue systematically understates net assets.

When choosing my empirical measure for reporting conservatism, the first priority is selecting one that corresponds with the hypotheses in this study. Depending on the specific hypothesis examined, prior work focuses on salient features of accounting conservatism such as the understatement of net assets and/or the asymmetric timeliness of losses versus gains recognition.[18] For this study, and as highlighted in my hypothesis development, I focus on accounting conservatism that ultimately leads to the understatement of net worth, so I select a measure that reflects this attribute. My choice of measure for conservatism is also driven by the trade-off between: (a) a firm-year specific measure that is estimated using a time-series of prior-period observations; and (b) a cross-sectional specification that is estimated across all firms. Choosing the former provides a measure that captures some aspect of firm-year specific time-invariant practice of conservatism since it is estimated over a particular time window. Choosing the latter likely provides an estimate with a larger sample size that is less subject to a survivorship bias arising

[18] Some prior work also differentiates between "conditional" and "unconditional" conservatism (e.g., Ball and Shivakumar [2005]).

from requiring long time-series data, but it assumes all firms in the cross-section have the same estimated coefficients in the conservatism model. For my main analyses and robustness tests, I use a firm-year specific measure because it is more consistent with my hypothesis that firms exhibit a level of reporting conservatism that does not change substantially over time. To support the robustness of my results, I also use a cross-sectional specification in additional sensitivity checks.

I estimate α_1 ($CONSV_t$) in equation (1) using the prior ten-year rolling window and interpret it to be increasing in the extent of reporting conservatism. The main benefit of this measure as compared to other firm-year specific asymmetric timeliness measures of conservatism is that it does not require a minimum number of "bad news" observations for estimation.[19] Thus, this measure provides a minimal loss of observations and offers a more representative sample. A potential drawback of this measure is that it does not capture the differential timeliness of losses versus gains characteristic of much of other measures (e.g., the Basu [1997] measure). In additional analyses, I also test my hypothesis with a cross-sectional specification using the Basu [1997] model.[20]

A firm's tendency to recognize expenses before its associated revenue is also a function of the firm's business model. For example, a firm with a lean manufacturing business model (e.g., contract manufacturers) is less likely to recognize expenses early as compared to a firm that incurs expenses in anticipation of future demand (e.g., fashion and R&D intensive businesses). In order to account for the heterogeneity of my measure of conservatism that is driven by different business models, I include industry and time fixed-effects in my empirical tests.

Table 1 provides the results of the firm-year specific regression of equation (1). Panel A presents the statistics for the total sample and the statistics partitioned by decade. Consistent with results documented by Dichev and Tang [2008] and Givoly and Hayn [2000], there is a general trend of increasing reporting conservatism over time. α_1 (or CONSV) which measures the extent to which expenses are recognized

[19] Bad news observations are either fiscal years with negative returns (Basu [1997]), negative change in income, or negative cash flows from operations (Ball and Shivakumar [2005]).

[20] I do not estimate a firm-year specific measure of conservatism using the Basu [1997] model because Givoly et al. [2007] find that this firm-year specific estimation is unstable over time which is inconsistent with the notion that reporting conservatism is a reasonably consistent attribute. I also do not consider a firm-year specific measure of conservatism suggested by Khan and Watts [2009] because their measure is a linear combination of the market-to-book ratio, leverage and size, which are important determinants of financial activities as documented in the finance literature, and thus using the Khan and Watts [2009] measure may confound my analyses.

ahead of the associated revenue, increases from a mean of 0.02 in the 1970s to a mean of 0.09 in the 2000s.

To provide some evidence of construct validity of this measure of conservatism, I compute the correlation between CONSV and accounting practices that are expected *a priori* to be associated with conservative reporting. In Table 1, Panel B, I find that CONSV is positively correlated with research and development expenses as a percentage of total assets (R&D, Pearson correlation = 0.14, p-value < 0.01) and the rate of depreciation for fixed assets (DEPRATE, Pearson correlation = 0.09, p-value < 0.01). Also, prior research (e.g., Beaver and Ryan [2000], Feltham and Ohlson [1995]) suggests that accounting conservatism is manifested in higher market-to-book ratio because equity values reflect expectations of future cash flows which are not reflected in book values that are understated as a result of reporting conservatism. Hence, I compute the correlation between CONSV and the market-to-book ratio (MB) and I find that it is positive (Pearson correlation = 0.12, p-value < 0.01) as predicted.[21]

3.2 Empirical Models

Before discussing the empirical models used to test the hypothesis, it is important to recognize that the hypothesis in this paper implicitly assumes that accounting conservatism influences corporate financial decisions. It could also be the case that corporate financial decisions influence accounting conservatism. For example, corporate cash holdings may reflect firms' ability to report conservatively or aggressively, and firms with greater financial resources are less likely to report conservatively since they are also less likely to access the capital markets for financing (reverse causality). To address this issue, I measure the firm-year specific level of conservatism one year prior to the financial variable for all my baseline regression specifications. I also address this concern in several other ways that are discussed in greater detail in section 6.

3.2.1 Model of corporate liquidity management. To test my hypothesis, I first determine whether reporting conservatism is related to corporate cash holdings. I use a cash model similar to Bates et al. [2009] and regress corporate cash holding on its contemporaneous determinants and lagged measure of reporting conservatism:

[21] While conceptually appealing, I do not use the market-to-book ratio as my measure of reporting conservatism because the market-to-book ratio also proxies for Tobin's Q, which is an important determinant of financial decisions as widely documented in finance literature. However, I include a proxy for Tobin's Q as a control variable in my regression equations.

$$CASH_t = \alpha + \beta CONSV_{t-1} + \sum \gamma CONTROLS_t + \varepsilon_t \quad (2)$$

Prior work examining cash holdings defines CASH as the sum of cash and cash equivalents scaled by total assets. Since reporting conservatism affects book values of both assets and equity, I define CASH as cash and cash equivalents scaled by market value of assets (MVA) to mitigate spurious correlation between my measure of cash holdings and conservatism due to the correlation between my choice of scalar and conservatism.[22] I also scale all financial control variables by market value of assets to reduce heteroskedasticity. Because I conduct my hypothesis testing on a pooled sample, I adjust the standard errors to control for cross-sectional and time-series dependence (Gow et al. [2010], Petersen [2009]).

For CONTROLS, I select the book-to-market ratio (BM) and research and development expenditure (R&D) to proxy for investment opportunities because cash holdings are more beneficial for firms with valuable growth options (Opler et al. [1999]). I use firm size (SIZE) as a proxy for economies of scale associated with the transaction motive for holding cash (Baumol [1952], Miller and Orr [1966]). I also proxy for firm performance using cash flows (CF) and returns (RET) since firms with better performance are also more likely to accumulate cash (Bates et al. [2009]). Net working capital (NWC) is selected to control for assets that substitute for cash, and capital expenditure (CAPEX) and acquisition expenditure (ACQ) are chosen to proxy for cash outflows as well as asset tangibility. Firms with higher asset tangibility are expected to hold less precautionary cash since tangible assets can be used as collateral for future financing. I use financial leverage (LEVERAGE) to proxy for the tendency of high-leveraged firms to use cash to reduce debt, and cash flow volatility (CFVOL) and return volatility (RETVOL) to control for cash flow risk and other idiosyncratic risks which motivate precautionary cash holding (Bates et al. [2009]). I also include a dividend-paying firm dummy (DIVD) to account for the fact that dividend paying firms are likely to be less risky and hence have lower need for precautionary cash holdings. Finally, I include industry and year dummies as additional controls. Detailed descriptions of all variables used in this paper are included in Appendix A.

If accounting conservatism increases (decreases) financial flexibility and leads to better (worse) access to capital, I expect firms with greater reporting conservatism to hold less (more) cash, and hence I expect $\beta < 0$ ($\beta > 0$) in equation (2).

[22] An implicit assumption in using market value instead of book value as a scalar is that the semi-strong efficient market impounds all publicly available information (including conservatism) in stock prices.

In an alternative test of H1, I assess whether accounting conservatism is related to firms' propensity to save, using a cash flow retention model similar to Almeida et al. [2004]:

$$\Delta CASH_t = \alpha + \psi FCF_t + \zeta CONSV_{t-1} + \beta FCF_t * CONSV_{t-1} + \sum \gamma CONTROLS_t + \varepsilon_t \quad (3)$$

where FCF is free cash flow and is defined as operating income before depreciation after interest, taxes and dividends, less other sources and (competing) uses of cash. The latter variables are capital expenditure (CAPEX), acquisition expenditure (ACQ), change in net working capital (ΔNWC) and change in short-term debt (ΔSTDEBT). Finally, I include book-to-market (BM), firm size (SIZE), and industry and year dummies as additional control variables. Similar to equation (2), I also scale all financial variables by market value of assets.

If accounting conservatism increases (decreases) financial flexibility and leads to better (worse) access to capital, I expect firms with greater reporting conservatism are less (more) likely to save out of cash flows and hence I expect $\beta < 0$ ($\beta > 0$) in equation (3).

3.2.2 Model of debt or equity issuance. I examine whether reporting conservatism is related to firms' choice of debt versus equity issuance using the following financing model:

$$Pr(DISSUE_t) = \alpha + \beta CONSV_{t-1} + \psi(LEVERAGE^*_t - LEVERAGE_{t-1}) + \sum \gamma CONTROLS_t + \varepsilon_t \quad (4)$$

where DISSUE is an indicator variable which equals 1 if the firm issues debt, and 0 if it issues equity. To prevent misclassification of debt and equity issuance (for example, issuing equity for employee stock options plans), I follow prior work (e.g., Korajczyk and Levy [2003]) and test my hypothesis only on firms that either issue debt or equity greater than 5% of market value of assets.[23] I discard observations where firms issue both debt and equity because their inclusion in my sample may lead to misclassification (6.4% of the sample of debt or equity issuances).

In this regression, I specifically control for the deviation from target leverage in the prior period ($LEVERAGE^*_{t-1} - LEVERAGE_{t-1}$) because firms that are under-leveraged (over-leveraged) are more likely to issue debt (equity). To estimate this deviation, I first regress firm leverage on its

[23] Prior work uses 5% of total assets as the threshold. I use 5% of market value of assets because all my financial variables are scaled by market value of assets.

contemporaneous determinants (all financial variables scaled by market value of assets), which include proxies for asset tangibility (property, plant and equipment or PPE), performance (OI and RET), product uniqueness (BM and R&D), net operating losses carry-forward (NOL), size (SIZE), dividend-paying firm dummy (DIVD), operating income and return volatility (OIVOL and RETVOL), industry median leverage (ILEV), and industry and year dummies. Asset tangibility is included because tangible assets serve as collateral for debt financing and increase firms' ability to carry debt. Firms with better performance and more unique products are also likely to have less debt (Titman and Wessels [1988]). Net operating losses carry-forward reduces future tax burden and thus reduces the benefit of interest tax shields and debt. Larger and dividend-paying firms are likely to have more debt as they are more diversified and stable and hence have lower probability of financial distress. Firms with volatile operations or facing higher idiosyncratic risks are less likely to rely on debt financing. Finally, firms tend to adjust their capital structure towards the industry median leverage (Hovakimian et al. [2001]). After estimating firm-year specific target leverage which is defined as the fitted value of the leverage regression ($LEVERAGE^*_{t-1}$), the difference between the target leverage and the actual leverage is the deviation from target leverage ratio ($LEVERAGE^*_{t-1} - LEVERAGE_{t-1}$). For control variables in equation (4), I specifically include stock returns (RET) to control for firms' tendency to issue equity following stock price run-ups. I also include contemporaneous BM, R&D, SIZE, DIVD, PPE, OI, OIVOL, RETVOL, NOL, and industry and year dummies as additional controls.

If accounting conservatism increases (decreases) financial flexibility and leads to better (worse) access to capital, I expect firms with greater reporting conservatism are more likely to issue debt (equity). Therefore, I expect $\beta > 0$ ($\beta < 0$) in equation (4).

3.3.3 Model of cash flow sensitivity of investments. Next, I estimate the following investment-cash flow sensitivity model:

$$CFSI_t = \alpha + \beta CONSV_{t-1} + \sum \gamma CONTROLS_t + \varepsilon_t \quad (5)$$

where CFSI is a firm-year specific measure of cash flow sensitivity of investment (Hovakimian and Hovakimian [2009]). This measure is defined as the difference between the firm's cash flow-weighted

time-series average investment and its unweighted arithmetic time-series average investment.[24] The intuition behind this specification is that a financially unconstrained firm's investment is unaffected by the timing of its cash flows and hence the cash-flow weighted and unweighted average investment should be similar. I estimate this measure using the current and the prior nine years rolling window.

For CONTROLS, I include proxies for asset tangibility (PPE) since firms with higher asset collateral are better able to obtain financing and should have lower investment-cash flow sensitivity. I also control for firm performance (CF and RET) because better performing firms exhibit lower constraints to investments. Proxies for growth opportunities (BM and R&D) are included to control for investment opportunities. I include size (SIZE) and dividend-paying firm dummy (DIVD) since larger firms and dividend payers are more stable and face less investment constraints. Finally, I include leverage (LEVERAGE) and cash flow and return volatility (OIVOL and RETVOL) because firms with higher debt and higher cash flow and idiosyncratic risks are also likely to have higher investment-cash flow sensitivity. Consistent with earlier specifications, all financial variables are scaled by market value of assets, and I include industry and year dummies as additional controls.

If accounting conservatism increases (decreases) financial flexibility and leads to better (worse) access to capital, I expect firms with greater reporting conservatism exhibit lower (higher) investment-cash flow sensitivity. Hence, I expect $\beta < 0$ ($\beta > 0$) in equation (5).

3.2.4 Model of corporate payout decisions. Finally, I separately estimate the following regression for dividend changes and stock repurchase (PAYOUT) changes similar to Harford et al. [2008]:

$$\Delta PAYOUT_{t+1} = \alpha + \psi \Delta CASH_t + \phi CASH_t + \zeta CONSV_{t-1} + \beta \Delta CASH_t * CONSV_{t-1} + \sum \gamma CONTROLS_t + \varepsilon_{t+1} \quad (6)$$

If accounting conservatism increases (decreases) financial flexibility and leads to better (worse) access to capital, I expect payout changes should be more (less) positively associated with prior cash changes. Therefore, I expect $\beta > 0$ ($\beta < 0$) in equation (6).

[24] Specifically, $CFSI_{it} = \sum_{t=1}^{n} \left(I_{it} \times \frac{CF_{it}}{\sum_{t=1}^{n} CF_{it}} \right) - \frac{1}{n} \sum_{t=1}^{n} I_{it}$, where CF is income before extraordinary items and depreciation, I is capital expenditures, and both variables are scaled by beginning-of-period net property, plant and equipment. Following prior work (e.g., Biddle and Hilary [2006], Hovakimian and Hovakimian [2009]) and to avoid negative and extreme values, negative values are set to zero in this formula.

For CONTROLS, I include all other control variables in cash regression equation (2) because determinants of cash holdings are likely to drive both cash changes and payout changes. All financial variables are also scaled by market value of assets.

4. Data and Descriptive Statistics

I obtain my initial sample of firm-year observations from 1971 – 2007 from COMPUSTAT. I include firms that are incorporated in the US, listed in the US stock exchanges (EXCHG code between 11 and 19), and with stock returns data from CRSP. I also exclude financials (SIC 6000-6999) and utilities (SIC 4900-4999) because these regulated firms are likely distinctive in their financial and reporting activities. My main sample after data requirements consists of 43,598 firm-years (Table 2), and sample size varies across regression equations to conserve sample size. To mitigate the influence of outliers, I discard observations where the value of the continuous variables is lower (higher) than the 1% (99%) levels.

Table 2 presents the descriptive statistics for the main sample. The firms in my sample are generally larger than the COMPUSTAT universe in the corresponding sample period. The sample median of total assets is $201 million whereas the COMPUSTAT median of total assets is $86 million (untabulated). This size difference is due to my firm-year specific measurement of reporting conservatism (CONSV) that requires data from the prior 10 fiscal years. Therefore, my sample is composed of only larger firms that have survived at least 10 years. This is also reflected by the relatively large proportion of dividend-paying firms (60.6%) versus the COMPUSTAT universe of 38.2% (untabulated).

Table 3 presents the sample Pearson correlations among the main variables. The financial activity variables appear to be correlated with one another in a meaningful way. Firms that hold more cash are more likely to issue equity (DISSUE) and have higher investment-cash flow sensitivity (CFSI). Firms with higher investment-cash flow sensitivity (CFSI) are also more likely to issue equity and are less likely to increase dividends. However, because these are pairwise univariate correlations, I defer the main analyses to multivariate tests in section 5.

5. Results

5.1 Analyses Using Firm-year Specific Measure of Reporting Conservatism

Table 4 represents the association between reporting conservatism and corporate liquidity management. In Panel A, I find that firms with greater reporting conservatism hold more cash (coefficient

= 0.013, *t*-statistic = 2.72) which is consistent with H1B. One standard deviation increase in reporting conservatism is associated with a 2.7% increase in the unconditional mean corporate cash holdings.[25] The other control variables are largely consistent with findings in prior literature that firms with more valuable investment opportunities (higher R&D) and higher cash flow risks (higher CFVOL) hold more cash, and firms with greater cash outflows (higher LEVERAGE, CAPEX, ACQ and NWC) and firms that are more stable (higher SIZE and dividend paying firms) hold less cash. However, I find that firms with higher BM also hold more cash, possibly because book-to-market also proxies for firm stability. Firms with higher CF appear to hold less cash, possibly because firms with higher and more stable cash flows are more likely to return cash to capital providers and hence hold less cash. Finally, I find that firms with higher idiosyncratic risks (high RETVOL) hold less cash, possibly because these risks are unanticipated and thus firms do not hold precautionary cash beyond that required to mitigate their firms' own cash flow risks (CFOVOL).

In Panel B, I investigate whether reporting conservatism is associated with firms' propensity to save. Consistent with H1B, I find that firms with higher reporting conservatism also save more cash out of cash flows (coefficient = 0.063, *t*-statistic = 1.82). One standard deviation increase in reporting conservatism is associated with a 4.3% increase in firms' propensity to save. Overall, the results in Table 4 suggest that firms with higher reporting conservatism exhibit lower financial flexibility and thus hold more cash and accumulate more cash out of cash inflows, presumably in anticipation of future difficulty in their ability to access capital.

In Table 5, I examine whether reporting conservatism is associated with firms' financing choice. Consistent with H1B, I find that firms with higher reporting conservatism are more likely to issue equity rather than debt (coefficient = -0.433, *z*-statistic = -2.17).[26] One standard deviation increase in reporting conservatism is associated with an 8.1% decrease in the mean probability of debt issuance. To provide greater support that firms with greater reporting conservatism face less financial flexibility in their financing choice, I also examine whether firms with higher reporting conservatism are less likely to time their equity issuance after stock price run-up, since Korajczyk and Levy [2003] find that financially constrained firms are not able to time their equity issuance during favorable macroeconomic conditions.

[25] Computed as 0.0126 (coefficient of CONSV) x 0.1586 (standard deviation of CONSV) ÷ 0.0736 (unconditional mean cash holdings).

[26] Inferences are unchanged when I use alternate thresholds 3% (coefficient = -0.372, *z*-statistic = -2.10) and 7% (coefficient = -0.349, *z*-statistic = -1.61) instead of 5% for classifying debt or equity issuance.

To test this prediction, I interact stock return performance (RET) with the measure of reporting conservatism (CONSV) and I find that firms with greater reporting conservatism are less likely to issue equity following a stock price run-up (coefficient = 0.988, *z*-statistic = 2.53). This result is consistent with my earlier finding that firms that exhibit greater reporting conservatism are likely to experience less flexibility in their choice of financing.

The other control variables are largely consistent with findings in prior literature. Firms that are under-leveraged (higher LEVDEV) and more stable (dividend-paying firms) are more likely to issue debt, and firms with greater investment opportunities (lower BM and higher R&D), higher stock price run-ups (higher RET), higher idiosyncratic risks (higher RETVOL) and higher tax shields (higher NOL) are more likely to issue equity.

Next, I examine whether reporting conservatism is related to firms' investment-cash flow sensitivity. In Table 6, column 1, consistent with H1B, I find that firms with greater reporting conservatism also exhibit higher cash flow sensitivity of investments (coefficient = 0.061, *t*-statistic = 3.16). One standard deviation increase in reporting conservatism is associated with a 10.1% increase in the mean CFSI. Following Hovakimian and Hovakimian [2009], I also use a 0.05 threshold for CFSI as representing greater investment-cash flow sensitivity (CFSIDUM), and the result of the logit regression is positive and significant (coefficient = 0.991, *z*-statistic = 6.65).[27] To examine the conjecture that reporting conservatism may result in under-investment, I regress CAPEX on CONSV and other controls. Results in Table 6, column 3 suggest that reporting conservatism is associated with under-investment (coefficient = -0.006, *t*-statistic = -3.15). This result corroborates Roychowdhury's [2010] conjecture that reporting conservatism may lead to under-investment in positive NPV projects if managers anticipate the negative effect of conservatism on reported earnings.

The coefficients on the other control variables are also consistent with findings in prior literature. Firms that are larger and more stable (higher SIZE and dividend-paying firms), have higher asset tangibility (higher PPE), and better performing firms (higher OI and RET) face less constraints in investments, and firms that are highly leveraged (high LEVERAGE) and face greater operating uncertainty and idiosyncratic risks (higher OIVOL AND RETVOL) exhibit greater investment-cash flow sensitivity.

[27] Results are also significant when I use thresholds of 0.03 and 0.01.

Finally, I investigate the relation between reporting conservatism and payout decisions in Table 7, and I provide separate analysis for dividend and repurchase decisions. Firms with positive cash changes are more likely to increase dividends and repurchases, consistent with firms more likely to increase payouts to shareholders following an increase in liquidity. However, consistent with H1B, I find that firms with greater reporting conservatism have a smaller increase in dividends following positive cash changes (coefficient of ΔCASH*CONSV = -0.007, *t*-statistic = -3.46), which suggests that firms with greater conservatism likely face more constraints in their payout policies. Interestingly, I do not find the same result for stock repurchase changes (coefficient of ΔCASH*CONSV = 0.006, *t*-statistic = 0.32). Together, this suggests that firms with greater reporting conservatism are more reluctant to commit to a consistent higher payout policy via dividends and are more inclined to distribute excess cash via repurchases that requires less commitment for future payouts.

In sum, the earlier tests are consistent with the Distortion of Information View (H1B) and suggest that firms with greater reporting conservatism exhibit less financial flexibility in their corporate liquidity management, choice of financing, investment-cash flow sensitivity and payout policies.

5.2 Analyses Using Cross-sectional Model of Reporting Conservatism

The analyses in the preceding section utilize a firm-year specific measure of reporting conservatism. I also confirm my results using cross-sectional reverse regression analyses on the pooled sample which is subject to less survivorship bias arising from requiring long time-series data to estimate CONSV. To do so, I augment the Dichev and Tang [2008] model to include interaction variables with future financial decision variables:

$$\begin{aligned} REVENUE_t = {} & \beta_0 + \beta_1*EXP_{t-1} + \beta_2*EXP_t + \beta_3*EXP_{t+1} + \beta_4*FIN + \beta_5*EXP_{t-1}*FIN + \\ & \beta_6*EXP_t*FIN + \beta_7*EXP_{t+1}*FIN + \varepsilon_t \end{aligned} \quad (7)$$

where FIN is either $CASH_{t+1}$, $\Delta CASH_{t+1}$, $DISSUE_{t+1}$, $CFSI_{t+1}$ or $\Delta PAYOUT_{t+2}$, scaled by average total assets to be consistent with the Dichev and Tang [2008] model. The coefficient of interest is β_5 where I examine whether reporting conservatism in time t is associated with financial decisions in time t+1 or t+2. Table 8 presents the results.

Relaxing the requirement for computing the firm-year specific measure of CONSV increases the usable sample size to 94,467 firm-years. As observed in Table 8, column 1, the coefficient of

EXP_{t-1}*$CASH_{t+1}$ is positive and significant (coefficient = 0.17, *t*-statistic = 3.28), suggesting that firms with greater reporting conservatism hold more cash which is consistent with H1B. In column 2, after controlling for FCF, the coefficient of EXP_{t-1}*$\Delta CASH_{t+1}$ is positive but not significant (coefficient = 0.08, *t*-statistic = 1.19), which provides no statistical support for H1. Coefficients of EXP_{t-1}*$DISSUE_{t+1}$ (coefficient = -0.17, *t*-statistic = -7.64) and EXP_{t-1}*$CFSI_{t+1}$ (coefficient = 0.02, *t*-statistic = 1.98) in columns 3 and 4 also provide evidence consistent with H1B, that firms with greater reporting conservatism are more likely to issue equity rather than debt and exhibit higher investment-cash flow sensitivity. In columns 5 and 6, I examine whether reporting conservatism is associated with future payout decisions and I find consistent evidence that firms with greater conservatism are associated with lower dividend changes (coefficient of EXP_{t-1}*$DIVDCHG_{t+2}$ = -1.64, *t*-statistic = -1.86) after controlling for $CASH_{t+1}$ and $\Delta CASH_{t+1}$. However, these firms are associated with higher repurchase changes (coefficient of EXP_{t-1}*$REPURCHG_{t+2}$ = 0.21, *t*-statistic = 2.51), which suggests that firms with greater reporting conservatism substitute repurchase changes for dividend changes in distributing excess cash to shareholders, which presumably requires less commitment for future payouts.

Overall, the results in this section are consistent with the earlier finding that firms with greater reporting conservatism exhibit less flexibility in their financial decisions, in line with the Distortion of Information View (H1B).

6. Additional Analyses and Sensitivity Checks

6.1 Controlling for Potential Endogeneity in Firm-year specific Measure of Conservatism

As highlighted in section 3.2, this paper posits that reporting conservatism influences corporate financial decisions, but it could be the case that corporate financial decisions influence reporting conservatism. To address this issue, I reestimate my regressions using a 3-year and 5-year lagged value of CONSV.[28] Even though statistical significance becomes weaker in longer lagged values, the main inferences are mostly unchanged (untabulated).[29] I also include firm fixed-effects that control for time-invariant firm characteristics and assume that the endogeneity resulting from the reverse causality is

[28] The reason for this procedure is to reduce the effect of reverse causality, given that lagged value of the conservatism measure is likely to be less influenced by the future value of the dependent variable.

[29] In particular, all tests remain statistically significant and consistent with H1B except for the analysis of propensity to save in which the CONSV coefficient retains the same sign but loses significance.

constant over time in additional sensitivity tests.[30] Although the coefficient of CONSV becomes insignificant when I examine its association with corporate propensity to save, the remaining tests are statistically similar (untabulated). Overall, the inferences are consistent with the results in the main analyses.

6.2 Lead and Lag Analysis Using Cross-sectional Model of Reporting Conservatism

I recognize that firm fixed-effects may not be meaningful given that my measure of conservatism is estimated over the prior ten periods and there are overlapping windows in the estimation of the firm-year specific CONSV. To mitigate this concern, I conduct a lead and lag analysis using the cross-sectional model of reporting conservatism. If changes in conservatism precede changes in financial decisions, I should observe a relation between the change in conservatism and the lead dependent variable, but not the lagged dependent variable. Therefore, I estimate the following model analyzing cash and cash changes:[31]

$$\begin{aligned} REVENUE_t = {} & \beta_0 + \beta_1*EXP_{t-1} + \beta_2*EXP_t + \beta_3*EXP_{t+1} + \beta_4*\Delta CASH_{t+x} + \\ & \beta_5*EXP_{t-1}*\Delta CASH_{t+x} + \beta_6*EXP_t*\Delta CASH_{t+x} + \beta_7*EXP_{t+1}*\Delta CASH_{t+x} + \\ & \beta_8*CASH_{t-1+x} + \beta_9*EXP_{t-1}*CASH_{t-1+x} + \beta_{10}*EXP_t*CASH_{t-1+x} + \\ & \beta_{11}*EXP_{t+1}* CASH_{t-1+x} + \varepsilon_t \end{aligned} \quad (8)$$

In this specification, I analyze over three successive time periods (x= -1, 0, 1) and I split the CASH variable into two components: CASH at the beginning of the period (time t-1+x) and the ΔCASH over the period (time t+x). Using this specification allows me to track how reporting conservatism is associated with change in cash holdings over successive time periods, after controlling for cash holdings. In untabulated analysis, I find that the coefficient of $EXP_{t-1}*\Delta CASH_{t+x}$ for x= -1, 0 and 1 is 0.022 (*t*-statistic = 0.32), 0.301 (*t*-statistic = 4.03), and 0.335 (*t*-statistic = 4.36), respectively. This suggests that reporting conservatism leads cash holdings rather than the reverse, providing support for the main results.

[30] Firm fixed-effects are not included in the analysis of financing choice because 61.6% of the observations do not exhibit variation in debt-equity choice over time.

[31] In this analysis, I only examine cash holdings because they are uncontaminated by overlapping window unlike CFSI. In addition, it is not meaningful to analyze changes of change variables (ΔCASH and ΔPAYOUT). Finally, very few firms issue debt and equity in successive fiscal years so it is difficult to conduct lead-lag analysis.

6.3 Alternative Specification of CONSV

In measuring CONSV based on the Dichev and Tang [2008] model, I define reporting conservatism as the magnitude of the relation between current revenue and past expenses. Consistent with Dichev and Tang [2008], expenses include special items and exclude extraordinary items and discontinued operations. Given that special items may induce noise to this measurement, I exclude special items in expenses when I estimate the Dichev and Tang [2008] model to derive CONSV.[32] The adjusted CONSV coefficient remains significant and consistent with H1B in the analyses of cash holdings, propensity to save, investment-cash flow sensitivity and payout decisions, whereas it retains the same sign but loses significance in the analyses of financing choice (untabulated).

Alternatively, instead of focusing solely on the relation between revenue and past expenses (α_1) in my measure of CONSV, I include the relation between revenue and *future* expenses (α_3) in my measure because α_3 captures the firm's tendency to defer recognition of expenses with its associated revenue (less conservative). Specifically, I redefine CONSV as $\alpha_1 - \alpha_3$ and rerun my tests. The redefined CONSV coefficient is statistically significant and consistent with the main results in all analyses except for the analysis of financing choice where it loses significance (untabulated). Overall, the main inferences are largely unchanged using these two alternative specifications of CONSV.

6.4 Basu's [1997] Model of Reporting Conservatism

As discussed earlier, my measure of reporting conservatism does not capture the differential timeliness of losses versus gains characteristic to the same extent as other measures. In an additional analysis, I also test my hypotheses with a cross-sectional reverse regression specification using the Basu [1997] model:

$$\begin{aligned} EARNINGS_t = {} & \beta_0 + \beta_1 * NEG_t + \beta_2 * RET_t + \beta_3 * RET_t * NEG_t + \beta_4 * FIN + \beta_5 NEG_t * FIN + \\ & \beta_6 RET_t * FIN + \beta_7 NEG_t * RET_t * FIN + \sum \gamma CONTROLS_t + \varepsilon_t \end{aligned} \quad (9)$$

[32] On one hand, if special items expenses are incurred in anticipation of future revenue decreases, including them in expenses may attenuate my measure of α_1. On the other hand, if special items expenses are incurred prior to future revenue increases (e.g. restructuring costs), including them may have the opposite effect on α_1. I include special items in my measure of CONSV because: (a) firms incurring special items expenses ahead of associated revenue are consistent with my definition of reporting conservatism; (b) CONSV measured including special items has a higher correlation with various measures associated with conservative reporting (market-to-book ratio, R&D intensity and the rate of depreciation for fixed assets).

where FIN is either $CASH_{t+1}$, $\Delta CASH_{t+1}$, $DISSUE_{t+1}$, $CFSI_{t+1}$ or $\Delta PAYOUT_{t+2}$, RET_t is stock returns cumulated over the 12-month period ending 3 months after the fiscal year end, NEG_t is an indicator equaling 1 if RET_t is negative. I include BM, SIZE, LEVERAGE and an indicator variable for firm membership in high litigation risks industries and interact these variables with NEG_t, RET_t and NEG_t*RET_t, as common in the literature. I examine whether incremental timeliness for bad news recognition in time t is associated with financial decisions in time t+1 or t+2 (β_7). The results for equation (9) are tabulated in Table 9. β_7 retains the same sign and remains statistically significant in the analyses of cash holdings, propensity to save and choice of financing, whereas β_7 is insignificant in the analyses of investment-cash flow sensitivity and payout policies. Overall, the results using the Basu [1997] model of reporting conservatism are largely consistent with my main results reported earlier.

6.5 Controlling for Firm Governance

Roychowdhury [2010] posits that accounting policies including reporting conservatism are part of a system of good governance mechanisms and policies. Hence, it is likely that corporate governance influences both conservative reporting and financial decisions and my findings may be spurious. To address this issue, I control for firm governance using institutional ownership (IOHOLD, available from 1979-2007), board independence (BD_IND, available from 1996-2007), and G-score (GSCORE, available from 1991-2007) individually in my analyses using firm-year specific measure of CONSV.[33] In untabulated analyses, the coefficient of CONSV retains the same sign and is significant at 10% or better in all analyses including institutional ownership as a control. The CONSV coefficient loses significance in the analyses of investment-cash flow sensitivity and dividend payouts including either board independence or G-score as controls. Finally, the CONSV coefficient changes sign and becomes significant in the analysis of dividend payouts using board independence as a control. This suggests that board governance relaxes financial constraints and ensures that managers of firms with greater reporting conservatism increase dividend payouts following positive cash changes.

6.6 Managerial Risk Aversion

Throughout the paper, I examine and test whether reporting conservatism is associated with corporate financial activities. However, I cannot dismiss the possibility that managers are inherently risk-averse which affects both conservative reporting and financial decisions. To examine this possibility, I use CEO's age, tenure and wealth (logged value of CEO's share ownership) to proxy for risk aversion

[33] I do not include all three controls at the same time because it results in a significant loss of firm-year observations from 43,598 to 5,507.

because CEOs who are older, have longer tenure or are wealthier are likely to be less risk averse. Data on these variables are available from fiscal year 1993. I include these variables individually as additional controls. In untabulated analyses, I find that the CONSV coefficient retains the same sign and remains statistically significant in the analyses of cash holdings, propensity to save, and choice of financing, while the CONSV coefficient loses significance in the analyses of investment-cash flow sensitivity and payout policies. I also find that CEOs who are older, have longer tenure and are wealthier hold more cash and have lower investment-cash flow sensitivity. Overall, even though I cannot completely reject this alternative story of managerial risk aversion due to imperfect proxies, most of the main inferences are unchanged using these proxies.

7. Summary and Conclusion

In this paper, I examine whether reporting conservatism is associated with firms' financial flexibility as manifested in their corporate financial decisions, namely with regard to their liquidity management, choice of debt or equity financing, investment-cash flow sensitivity, and payout policies. Using a measure of reporting conservatism derived from Dichev and Tang [2008], I find that firms with greater reporting conservatism exhibit less flexibility in their financial decisions. By understating net worth, accounting conservatism weakens the appearance of firms' balance sheet strength which results in managers seeming more financially constrained and behaving more conservatively in their financial decisions.

This paper responds to a concern by Roychowdhury [2010, p.180] that evidence on conservatism's effect on corporate decisions is lacking in the literature. This study extends our understanding of the relationship between accounting conservatism and corporate financial activities. Although reporting conservatism is beneficial to borrowers in terms of lower cost of debt, it also shifts more power to lenders by increasing the likelihood of covenant violations and lenders' interventions (Zhang [2008]). This paper suggests that firms that report more conservatively behave as if debt contracting is more costly by exhibiting less financial flexibility in their internal financial decisions. This study draws attention to possible costs of reporting conservatism following theoretical work by Gigler et al. [2009], who find that reporting conservatism may reduce debt contracting efficiency. The results in this paper also provide some justification as to why standard setters prefer accounting information to be neutral and free of bias, and why they oppose including the concept of conservatism as a desirable qualitative characteristic of accounting information in the conceptual framework.

A caveat in this paper is that I do not provide conclusive evidence of a causal link between reporting conservatism and firms' financial activities. While I attempt to provide some evidence of a causal relationship through my empirical tests (e.g., lead and lag analysis), the results are insufficient to prove causality. Future research may utilize specific settings (e.g., exogenous shocks to reporting conservatism) to explore the causal relation between accounting conservatism and firms' financial activities.

References

ALMEIDA, H., M. CAMPELLO, and M.S. WEISBACH. "The cash flow sensitivity of cash." *Journal of Finance* 59 (2004): 1777-1804.

ARMSTRONG, C.S., W.R. GUAY, and J.P. WEBER. "The role of information and financial reporting in corporate governance and contracting." *Journal of Accounting and Economics* 50 (2010): 179-234.

BALL, R., R.M. BUSHMAN, and F.P. VASVARI. "The debt-contracting value of accounting information and loan syndicate structure." *Journal of Accounting Research* 46 (2008): 247-287.

BALL, R., A. ROBIN, and G. SADKA. "Is financial reporting shaped by equity markets or by debt markets? An international study of timeliness and conservatism." *Review of Accounting Studies* 13 (2008): 168-205.

BALL, R., and L. SHIVAKUMAR. "Earnings quality in UK private firms: Comparative loss recognition timeliness." *Journal of Accounting and Economics* 39 (2005): 83-128.

BASU, S. "The conservatism principle and the asymmetric timeliness of earnings." *Journal of Accounting and Economics* 24 (1997): 3-37.

BATES, T.W., K.M. KAHLE, and R.M. STULZ. "Why do U.S. firms hold so much more cash than they used to?" *Journal of Finance* 64 (2009): 1985-2021.

BAUMOL, W.J. "The transaction demand for cash: The inventory theoretic approach." *Quarterly Journal of Economics* 66 (1952): 545-556.

BEATTY, A., J. WEBER, and J.J. YU. "Conservatism and debt." *Journal of Accounting and Economics* 45 (2008): 154-174.

BEAVER, W.H., and S.G. RYAN. "Biases and lags in book value and their effects on the ability of the book-to-market ratio to predict book return on equity." *Journal of Accounting Research* 38 (2000): 127-148.

BENEISH, M.D., and E. PRESS. "Costs of technical violation of accounting-based debt covenants." *The Accounting Review* 68 (1993): 233-257.

BENS, D.A., V. NAGAR, D.J. SKINNER, and M.H.F. WONG. "Employee stock options, EPS dilution, and stock repurchases." *Journal of Accounting and Economics* 36 (2003): 51-90.

BIDDLE, G.C., and G. HILARY. "Accounting quality and firm-level capital investment." *The Accounting Review* 81 (2006): 963-982.

CAMPELLO, M., J.R. GRAHAM, and C.R. HARVEY. "The real effects of financial constraints: Evidence from a financial crisis." *Journal of Financial Economics* 97 (2010): 470-487.

CHAVA, S., and M.R. ROBERTS. "How does financing impact investment? The role of debt covenants." *Journal of Finance* 63 (2008): 2085-2121.

DEANGELO, H., L. DEANGELO, and D.J. SKINNER. "Corporate payout policies." *Foundations and Trends in Finance* Vol. 3 (2008): 95-287.

DENIS, D.J., and V. SIBILKOV. "Financial constraints, investment, and the value of cash holdings." *Review of Financial Studies* 23 (2010): 247-269.

DICHEV, I.D., and V.W. TANG. "Matching and the changing properties of accounting earnings over the last 40 years." *The Accounting Review* 83 (2008): 1425-1460.

DITTMAR, A., and J. MAHRT-SMITH. "Corporate governance and the value of cash holdings." *Journal of Financial Economics* 83 (2007): 599-634.

FAMA, E.F., and K.R. FRENCH. "Disappearing dividends: Changing firm characteristics or lower propensity to pay?" *Journal of Financial Economics* 60 (2001): 3-43.

FAULKENDER, M., and R. WANG. "Corporate financial policy and the value of cash." *Journal of Finance* 61 (2006): 1957-1990.

FAZZARI, S.M., R.G. HUBBARD, and B.C. PETERSEN. "Financing constraints and corporate investment." *Brookings Papers on Economic Activity* Vol. 1988 (1988): 141-206.

FELTHAM, G., and J. OHLSON. "Valuation and clean surplus accounting for operating and financial activities." *Contemporary Accounting Research* 11 (1995): 689-731.

FINANCIAL ACCOUNTING STANDARDS BOARD (FASB). Board meeting handout: Conceptual framework. July 27 (2005). Norwalk, CT: FASB

FRANCIS, J., R. LAFOND, P.M. OLSSON, and K. SCHIPPER. "Costs of equity and earnings attributes." *The Accounting Review* 79 (2004): 967-1010.

FRANCIS, J.R., and X. MARTIN. "Acquisition profitability and timely loss recognition." *Journal of Accounting and Economics* 49 (2010): 161-178.

GAMBA, A., and A. TRIANTIS. "The value of financial flexibility." *Journal of Finance* 63 (2008): 2263-2296.

GIGLER, F., C. KANODIA, H. SAPRA, and R. VENUGOPALAN. "Accounting conservatism and the efficiency of debt contracts." *Journal of Accounting Research* 47 (2009): 767-797.

GIVOLY, D., and C. HAYN. "The changing time-series properties of earnings, cash flows and accruals: Has financial reporting become more conservative?" *Journal of Accounting and Economics* 29 (2000): 287-320.

GIVOLY, D., C.K. HAYN, and A. NATARAJAN. "Measuring reporting conservatism." *The Accounting Review* 82 (2007): 65-106.

GOW, I.D., G. ORMAZABAL, and D.J. TAYLOR. "Correcting for cross-sectional and time-series dependence in accounting research." *The Accounting Review* 85 (2010): 483-512.

GRAHAM, J.R., and C.R. HARVEY. "The theory and practice of corporate finance: Evidence from the field." *Journal of Financial Economics* 60 (2001): 187-243.

GUAY, W., and R. VERRECCHIA. "Discussion of an economic framework for conservative accounting and Bushman and Piotroski (2006)." *Journal of Accounting and Economics* 42 (2006): 149-165.

HARFORD, J., S.A. MANSI, and W.F. MAXWELL. "Corporate governance and firm cash holdings in the US." *Journal of Financial Economics* 87 (2008): 535-555.

HAYASHI, F. "Tobin's marginal q and average q: a neoclassical interpretation." *Econometrica* 50 (1982): 213-224.

HOLTHAUSEN, R.W., and R.L. WATTS. "The relevance of value-relevance literature for financial accounting standard setting." *Journal of Accounting and Economics* 31 (2001): 3-75.

HOVAKIMIAN, A., and G. HOVAKIMIAN. "Cash flow sensitivity of investment." *European Financial Management* 15 (2009): 47-65.

HOVAKIMIAN, A., T. OPLER, and S. TITMAN. "The debt-equity choice." *Journal of Financial and Quantitative Analysis* 36 (2001): 1-24.

JENSEN, M. "Agency costs of free cash flow, corporate finance and takeovers." *American Economic Review* 76 (1986): 323-329.

KHAN, M. and R.L. WATTS. "Estimation and empirical properties of a firm-year measure of accounting conservatism." *Journal of Accounting and Economics* 48 (2009): 132-150.

KIM, W., and M.S. WEISBACH. "Motivations for public equity offers: an international perspective." *Journal of Financial Economics* 87 (2008): 281-307.

KORAJCZYK, R.A., and A. LEVY. "Capital structure choice: Macroeconomic conditions and financial constraints." *Journal of Financial Economics* 68 (2003): 75-109.

LAFOND, R., and S. ROYCHOWDHURY. "Managerial ownership and accounting conservatism." *Journal of Accounting Research* 46 (2008): 101-135.

LAFOND, R., and R.L. WATTS. "The information role of conservatism." *The Accounting Review* 83 (2008): 447-478.

LI, N. "Negotiated measurement rules in debt contract." *Journal of Accounting Research* 48 (2010): 1103-1144.

LOUIS, H., A. SUN, and O. URCAN. "Value of cash holdings and accounting conservatism." *Contemporary Accounting Research*, forthcoming.

MILLER, M.H., and D. ORR. "A model of the demand for money by firms." *Quarterly Journal of Economics* 80 (1966): 413-435.

MYERS, S.C., and N.S. MAJLUF. "Corporate financing and investment decisions when firms have information that investors do not have." *Journal of Financial Economics* 13 (1984): 187-221.

NIKOLAEV, V.V. "Debt covenants and accounting conservatism." *Journal of Accounting Research* 48 (2010): 137-175.

OPLER, T., L. PINKOWITZ, R.M. STULZ, and R. WILLIAMSON. "The determinants and implications of corporate cash holdings." *Journal of Financial Economics* 52 (1999): 3-46.

PETERSEN, M.A. "Estimating standard errors in finance panel data sets: Comparing approaches." *Review of Financial Studies* 22 (2009): 435-480.

PINKOWITZ, L., R.M. STULZ, and R. WILLIAMSON. "Does the contribution of corporate cash holdings and dividends to firm value depend on governance? A cross-country analysis." *Journal of Finance* 61 (2006): 2725-2751.

ROYCHOWDHURY, S. "Discussion of: "Acquisition profitability and timely loss recognition" by J. Francis and X. Martin." *Journal of Accounting and Economics* 49 (2010): 179-183.

SRIVASTAVA, A., and S.Y. TSE. "Timely loss recognition and the early termination of unprofitable projects." Unpublished working paper, 2009.

STEIN, J.C. "Information production and capital allocation: Decentralized versus hierarchical firms." *Journal of Finance* 57 (2002): 1891-1921.

SUFI, A. "Bank lines of credit in corporate finance: An empirical analysis." *Review of Financial Studies* 22 (2009): 1057-1088.

TITMAN, S., and R. WESSELS. "The determinants of capital structure choice." *Journal of Finance* 43 (1988), 1-19.

WATTS, R.L. "Conservatism in accounting, Part I: Explanations and implications." *Accounting Horizons* 17 (2003): 207-221.

WITTENBERG-MOERMAN, R. "The role of information asymmetry and financial reporting quality in debt trading: Evidence from the secondary loan market." *Journal of Accounting and Economics* 46 (2008): 240-260.

ZHANG, J. "The contracting benefits of accounting conservatism to lenders and borrowers." *Journal of Accounting and Economics* 45 (2008): 27-54.

APPENDIX

Variables Definition[34]

ACQ — Acquisition expenditure (AQC) for the fiscal year.

BM — The book-to-market ratio at the end of the fiscal year, defined as total assets (AT) divided by the sum of book value of debt (AT – CEQ) and market value of equity (CSHO*PRCC_F).

CAPEX — Capital expenditure (CAPEX) for the fiscal year.

CASH — Sum of cash and cash equivalents (CEQ) at the end of the fiscal year.

CF — Cash flow for the fiscal year, defined as operating income before depreciation (OIBDP) less interest expense (XINT) less tax expense (TXT) less dividends (DVC).

CFSI — $\sum_{t=1}^{n}\left(I_{it} \times \frac{CF_{it}}{\sum_{t=1}^{n} CF_{it}}\right) - \frac{1}{n}\sum_{t=1}^{n} I_{it}$, where CF is income before extraordinary items and depreciation (IB + DP), I is capital expenditures (CAPX), and both variables are scaled by beginning-of-period net property, plant and equipment (PPENT). To avoid negative and extreme values, negative values are set to zero in this formula

CFVOL — Volatility of cash flow, measured over at least 3 years in the prior ten fiscal years.

CONSV — Defined as α_1 in the following firm-specific time series regression in the prior ten-year rolling window:

$$REVENUE_t = \alpha_0 + \alpha_1 * EXP_{t-1} + \alpha_2 * EXP_t + \alpha_3 * EXP_{t+1} + \varepsilon_t$$

DEBT — Book value of debt at the end of the fiscal year, which is defined as the sum of long-term debt (DLTT) and debt in current liabilities (DLC).

DISSUE — Indicator equals one if the firm issues net debt (ΔDEBT) greater than 5% of market value of assets, and zero if the firm issues net equity (SSTK – PRSTKC - ΔPSTKL) greater than 5% of market value of assets, in the fiscal year.

DIVD — Indictor equals one if the firm is a dividend payer (DVC > 0) in the fiscal year, zero otherwise.

[34] COMPUSTAT variables in parentheses, unless otherwise noted.

DIVDCHG Change in dividends (DVC) over the fiscal year.

FCF Free cash flow in the fiscal year, defined as operating income before depreciation (OIBDP) less interest expense (XINT), less tax expense (TXT) less dividends (DVC) less capital expenditure (CAPEX) less acquisition expenditure (AQC) less change in net working capital (WCAP – CHE) less change in short-term debt (DD1).

LEVDEV Deviation from target leverage in the prior fiscal year ($LEVERAGE_{t-1}^{*}$ less $LEVERAGE_{t-1}$).

LEVERAGE Sum of long-term debt (DLTT) and debt in current liabilities (DLC) at the end of the fiscal year.

MVA Market value of assets, defined as the sum of book value of debt (AT – CEQ) and market value of equity (CSHO*PRCC_F) at the end of the fiscal year.

NOL Net operating loss carry-forward (TLCF) at the end of the fiscal year.

NWC Net working capital at the end of the fiscal year, defined as working capital (WCAP) less cash (CHE).

OI Operating income before depreciation (OIBDP) in the fiscal year.

OIVOL Volatility of operating income before depreciation (OIBDP), measured over at least 3 years in the prior ten fiscal years.

PPE Gross property, plant and equipment (PPEGT) at the end of the fiscal year.

REPURCHG Change in net repurchases in the fiscal year. Following Fama and French [2001], if the firm uses the 'treasury method', net repurchases are defined as the increase in treasury stock (TSTKC). If the firm uses the 'retirement method' (inferred from zero treasury stock in the prior and current year), net repurchases are defined as the difference between stock purchases (PRSTKC) and stock issuances (SSTK). Net repurchases are set to zero if negative.

R&D Research and development expenditure (XRD) in the fiscal year. This variable is set to zero if missing.

RET Value-weighted 12-month market-adjusted returns in the fiscal year (CRSP: VWRETD).

RETVOL	12-month returns volatility in the fiscal year.
SIZE	Logarithm of market value of assets (AT – CEQ + CSHO*PRCC_F) in the fiscal year, adjusted for inflation using Table B-3 from the Economic Report to the President.

Table 1
Firm-specific Regression of Revenue on Past, Current and Future Expenses

$REVENUE_t = \alpha_0 + \alpha_1 * EXP_{t-1} + \alpha_2 * EXP_t + \alpha_3 * EXP_{t+1} + \varepsilon_t$ *(1)*

	CONST	α_1	α_2	α_3
Panel A: Total sample (43,598 firm-year observations)				
Mean	-0.05	0.06	1.01	0.00
(t-statistic)	(-36.55)	(74.10)	(912.45)	(-5.88)
Q1	-0.17	-0.03	0.97	-0.07
Median	-0.03	0.03	1.04	-0.01
Q3	0.08	0.11	1.12	0.06
Std. Dev.	0.29	0.16	0.23	0.17
1970s sample (8,442 firm-year observations)				
Mean	-0.05	0.02	1.07	-0.01
Q1	-0.14	-0.03	1.02	-0.05
Median	-0.03	0.01	1.06	-0.01
Q3	0.06	0.05	1.12	0.03
1980s sample (12,764 firm-year observations)				
Mean	-0.06	0.03	1.06	-0.01
Q1	-0.16	-0.03	1.00	-0.07
Median	-0.04	0.02	1.06	-0.01
Q3	0.07	0.08	1.13	0.05
1990s sample (12,415 firm-year observations)				
Mean	-0.05	0.08	0.98	0.00
Q1	-0.19	-0.02	0.92	-0.09
Median	-0.03	0.04	1.03	-0.01
Q3	0.10	0.15	1.11	0.07
2000s sample (9,977 firm-year observations)				
Mean	-0.05	0.09	0.95	0.00
Q1	-0.18	-0.02	0.84	-0.09
Median	-0.03	0.05	1.01	0.00
Q3	0.10	0.18	1.11	0.09

Panel B: Pearson correlation table

	CONSV	R&D	DRATE	MB
CONSV	1.00			
R&D	0.14	1.00		
DEPRATE	0.09	0.25	1.00	
MB	0.12	0.32	0.20	1.00

The sample consists of 43,598 US-incorporated firm-years from 1971 – 2007 and excluding financials (SIC 6000-6999) and utilities (SIC 4900-4999). REVENUE is net sales (SALE). EXP is expenses, defined as REVENUE less income before extraordinary items (IB). R&D is research and development (XRD) scaled by total assets (AT). DEPRATE is depreciation expense (DP) divided by gross property, plant and equipment (PPEGT). MB is the market-to-book ratio. All variables in (1) are scaled by average total assets (AT). The t-statistics reported in Panel A are determined based on the distribution of the 43,598 coefficients obtained from the firm-specific regressions.

Table 2
Sample and Descriptive Statistics

Variables	Obs.	Mean	Median	Std. Dev.	Q1	Q3
CASH	43,598	0.074	0.044	0.086	0.018	0.097
ΔCASH	43,598	0.003	0.001	0.049	-0.012	0.019
DISSUE	8,911	0.844	1.000	0.363	1.000	1.000
CFSI	41,212	0.095	0.018	0.320	0.004	0.058
DIVDCHG	42,648	0.000	0.000	0.003	0.000	0.001
REPURCHG	28,443	0.008	0.000	0.023	0.000	0.004
CONSV	43,598	0.056	0.026	0.159	-0.027	0.111
BM	43,598	0.816	0.817	0.302	0.597	1.027
R&D	43,598	0.015	0.000	0.028	0.000	0.020
SIZE	43,598	1.509	1.435	1.874	0.117	2.866
DIVD	43,598	0.606	1.000	0.489	0.000	1.000
LEVERAGE	43,598	0.204	0.177	0.162	0.069	0.309
LEVDEV	42,480	-0.002	0.008	0.119	-0.074	0.077
CAPEX	43,598	0.052	0.039	0.044	0.021	0.069
PPE	43,598	0.505	0.433	0.342	0.243	0.696
FCF	43,598	-0.022	-0.011	0.080	-0.056	0.022
OI	43,598	0.099	0.102	0.072	0.068	0.140
CF	43,598	0.047	0.053	0.055	0.031	0.075
RET	43,598	0.174	0.160	0.429	-0.078	0.403
OIVOL	43,598	0.046	0.038	0.032	0.024	0.058
CFVOL	43,598	0.033	0.024	0.030	0.015	0.040
RETVOL	43,598	0.118	0.103	0.061	0.076	0.142
ACQ	43,598	0.011	0.000	0.030	0.000	0.003
NWC	43,598	0.153	0.122	0.171	0.029	0.255
NOL	43,494	0.044	0.000	0.164	0.000	0.000

The sample consists of 43,598 US-incorporated firm-years from 1971 – 2007 and excluding financials (SIC 6000-6999) and utilities (SIC 4900-4999). CASH is the sum of cash and cash equivalents. ΔCASH is the change in CASH. DISSUE is an indicator equals one if the firm issues net debt greater than 5% of market value of assets, and zero if the firm issues net equity greater than 5% of market value of assets. CFSI is the cash flow sensitivity of investment, defined according to Hovakimian and Hovakimian [2009]. DIVDCHG is the change in dividends. REPURCHG is the change in net repurchases. CONSV is the firm-year measure of reporting conservatism. BM is the book-to-market ratio. R&D is research and development expenditure. SIZE is logarithm of market value of assets adjusted for inflation. DIVD is an indicator equals one if the firm is a dividend payer, and zero otherwise. LEVERAGE is the sum of long-term debt and debt in current liabilities. LEVDEV is the deviation from target leverage in the prior period ($LEVERAGE^{*}$ - LEVERAGE). CAPEX is capital expenditure. PPE is gross property, plant and equipment. FCF is free cash flow. OI is operating income before depreciation. CF is cash flow. RET is the value-weighted 12-month market-adjusted returns in the fiscal year. OIVOL is the volatility of operating income before depreciation, measured over at least 3 years in the prior ten fiscal years. CFVOL is the volatility of cash flow, measured over at least 3 years in the prior ten fiscal years. RETVOL is 12-month returns volatility in the fiscal year. ACQ is acquisition expenditure. NWC is net working capital. NOL is net operating loss carry-forward. All financial variables are also scaled by market value of assets.

Table 3
Pearson Correlation Table

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1 CASH	1.00																								
2 ΔCASH	0.23	1.00																							
3 DISSUE	-0.17	-0.20	1.00																						
4 CFSI	0.06	-0.02	-0.10	1.00																					
5 DIVDCHG	0.02	0.07	-0.07	-0.02	1.00																				
6 REPURCHG	0.07	0.10	-0.50	0.03	0.02	1.00																			
7 CONSV	0.06	-0.01	-0.11	0.10	-0.03	0.01	1.00																		
8 BM	0.11	-0.05	0.31	-0.06	-0.07	-0.06	-0.12	1.00																	
9 R&D	0.19	-0.07	-0.10	0.09	-0.03	0.02	0.10	-0.02	1.00																
10 SIZE	-0.22	0.04	0.06	-0.17	0.07	0.02	-0.06	-0.29	-0.14	1.00															
11 DIVD	-0.09	0.02	0.20	-0.24	0.03	-0.03	-0.18	0.04	-0.18	0.35	1.00														
12 LEVERAGE	-0.26	-0.06	0.36	0.01	-0.10	-0.09	-0.05	0.51	-0.15	-0.05	-0.11	1.00													
13 LEVDEV	0.25	0.00	0.13	-0.05	0.06	0.02	-0.01	-0.07	0.00	0.08	0.09	-0.68	1.00												
14 CAPEX	-0.11	-0.09	0.17	-0.08	-0.01	-0.02	-0.09	0.32	-0.08	0.04	0.15	0.24	0.04	1.00											
15 PPE	-0.08	-0.05	0.16	-0.12	-0.05	-0.05	-0.06	0.58	-0.11	-0.05	0.11	0.37	-0.01	0.57	1.00										
16 FCF	0.09	0.38	-0.08	-0.05	0.04	-0.03	0.00	-0.07	-0.03	0.03	0.02	-0.17	0.01	-0.31	-0.06	1.00									
17 OI	-0.09	0.15	0.19	-0.19	0.18	-0.01	-0.16	0.27	-0.23	0.11	0.37	0.06	0.03	0.33	0.28	0.23	1.00								
18 CF	-0.11	0.16	0.15	-0.16	0.13	0.00	-0.10	0.14	-0.18	0.12	0.21	-0.04	0.07	0.30	0.25	0.32	0.87	1.00							
19 RET	-0.03	0.16	-0.18	0.01	0.12	0.03	0.01	-0.27	-0.09	0.02	0.00	-0.19	0.01	-0.12	-0.15	0.11	0.10	0.13	1.00						
20 OIVOL	0.20	-0.02	-0.12	0.22	-0.02	0.02	0.11	0.11	0.14	-0.48	-0.28	-0.01	0.00	0.02	0.03	-0.10	-0.14	-0.16	0.07	1.00					
21 CFVOL	0.17	-0.03	-0.17	0.25	-0.05	0.02	0.19	-0.01	0.16	-0.40	-0.39	-0.01	-0.05	-0.05	-0.03	-0.10	-0.26	-0.23	0.05	0.81	1.00				
22 RETVOL	0.05	0.00	-0.22	0.20	-0.06	0.00	0.12	-0.01	0.16	-0.34	-0.43	0.11	-0.14	-0.09	-0.08	-0.06	-0.26	-0.22	0.24	0.30	0.33	1.00			
23 ACQ	-0.08	-0.11	0.13	0.00	0.00	0.02	0.00	-0.03	-0.03	0.10	0.01	0.05	0.01	-0.08	-0.10	-0.37	-0.01	0.02	-0.01	-0.05	-0.02	-0.05	1.00		
24 NWC	-0.06	-0.06	0.13	-0.04	0.00	-0.02	-0.11	0.52	0.09	-0.34	0.08	0.12	-0.01	-0.06	0.01	-0.03	0.24	0.14	-0.07	0.10	-0.04	-0.02	-0.07	1.00	
25 NOL	0.05	-0.07	-0.15	0.15	-0.03	0.00	0.14	-0.03	0.15	-0.19	-0.28	0.06	-0.07	-0.10	-0.03	-0.08	-0.31	-0.31	-0.06	0.27	0.35	0.26	-0.03	-0.09	1.00

The sample consists of 43,598 US-incorporated firm-years from 1971 – 2007 and excluding financials (SIC 6000-6999) and utilities (SIC 4900-4999). All variables are defined in the Appendix. All correlations are statistically significant at the 0.05 level or better, except those highlighted.

Table 4
Reporting Conservatism and Corporate Liquidity Management

Panel A: Cash Model

$$CASH_t = \alpha + \beta CONSV_{t-1} + \sum \gamma CONTROLS_t + \varepsilon_t \quad (2)$$

	CASH		
	Coef.	*t-stats*	
CONSV	0.013	2.72	***
BM	0.157	26.37	***
R&D	0.333	5.28	***
SIZE	-0.007	-9.43	***
DIVD	-0.002	-0.86	
LEVERAGE	-0.233	-23.47	***
CAPEX	-0.335	-17.13	***
CF	-0.077	-4.73	***
RET	0.003	1.53	
CFVOL	0.184	5.31	***
RETVOL	-0.071	-4.24	***
ACQ	-0.147	-8.74	***
NWC	-0.201	-22.61	***
CONSTANT	0.045	4.14	***
Industry and Year FE	YES		
Adjusted R^2	0.313		
Observations	43,598		

Panel B: Cash Retention Model

$$\Delta CASH_t = \alpha + \psi FCF_t + \zeta CONSV_{t-1} + \beta FCF_t * CONSV_{t-1} + \sum \gamma CONTROLS_t + \varepsilon_t \quad (3)$$

	ΔCASH		
	Coef.	*t-stats*	
CONSV	0.000	0.30	
FCF*CONSV	0.063	1.82	*
FCF	0.234	27.46	***
BM	-0.009	-8.83	***
SIZE	0.000	1.68	*
CONSTANT	0.019	3.52	***
Industry and Year FE	YES		
Adjusted R^2	0.159		
Observations	43,598		

All variables are defined in the Appendix, and financial variables are scaled by market value of assets. Standard errors are corrected for cross-sectional and time-series dependence (Gow et al. [2010], Petersen [2009]). ***, **, and * indicate statistical significance at the 0.01, 0.05 and 0.10 level or better, respectively (two-tailed test).

Table 5
Reporting Conservatism and the Choice of Debt or Equity Financing

$$Pr(DISSUE_t) = \alpha + \beta CONSV_{t-1} + \psi LEVDEV_t + \sum \gamma CONTROLS_t + \varepsilon_t \quad (4)$$

	(1) DISSUE			(2) DISSUE		
	Coef.	*z-stats*		*Coef.*	*z-stats*	
CONSV	-0.433	-2.17	**	-0.645	-3.10	***
RET*CONSV				0.988	2.53	**
BM	3.440	12.07	***	3.421	12.10	***
R&D	-4.292	-2.85	***	-4.122	-2.68	***
SIZE	0.008	0.23		0.004	0.12	
DIVD	0.576	7.29	***	0.581	7.27	***
LEVDEV	3.568	9.74	***	3.595	9.89	***
PPE	-0.470	-2.10	**	-0.465	-2.09	**
OI	-0.872	-0.89		-0.867	-0.89	
RET	-0.326	-3.21	***	-0.419	-3.63	***
OIVOL	0.579	0.45		0.550	0.43	
RETVOL	-3.868	-5.87	***	-3.910	-6.04	***
NOL	-0.741	-4.43	***	-0.735	-4.48	***
CONSTANT	-1.850	-2.18	**	-1.815	-2.15	**
Industry and Year FE	YES			YES		
McFadden's R^2	0.230			0.231		
Observations	8,560			8,560		

All variables are defined in the Appendix, and financial variables are scaled by market value of assets. Standard errors are corrected for cross-sectional and time-series dependence (Gow et al. [2010], Petersen [2009]). ***, **, and * indicate statistical significance at the 0.01, 0.05 and 0.10 level or better, respectively (two-tailed test).

Table 6
Reporting Conservatism and Investment-Cash Flow Sensitivity

$$CFSI_t = \alpha + \beta CONSV_{t-1} + \sum \gamma CONTROLS_t + \varepsilon_t \quad (5)$$

	(1) CFSI			(2) CFSIDUM			(3) CAPEX		
	Coef.	*t-stats*		*Coef.*	*z-stats*		*Coef.*	*t-stats*	
CONSV	0.061	3.16	***	0.991	6.65	***	-0.006	-3.15	***
BM	-0.039	-2.22	**	-0.044	-0.28		-0.011	-5.09	***
R&D	-0.025	-0.18		1.933	1.61		0.095	7.34	***
SIZE	-0.009	-3.79	***	-0.148	-7.00	***	0.001	3.80	***
DIVD	-0.066	-9.46	***	-0.967	-15.25	***	0.001	0.76	
LEVERAGE	0.093	3.55	***	0.781	3.18	***	0.009	2.57	**
PPE	-0.089	-7.43	***	-0.997	-7.74	***	0.058	22.54	***
OI	-0.240	-5.08	***	-0.895	-2.61	***	0.096	18.16	***
RET	-0.024	-4.71	***	-0.171	-3.95	***	-0.010	-10.77	***
OIVOL	1.562	9.83	***	9.645	9.33	***	0.044	3.41	***
RETVOL	0.394	7.24	***	3.959	12.04	***	0.014	2.91	***
CONSTANT	0.101	4.83	***	-2.008	-3.27	***	0.007	1.49	
Industry and Year FE	YES			YES			YES		
Adj. R^2 /McFadden's R^2	0.113			0.202			0.454		
Observations	41,212			41,199			43,598		

CFSIDUM is an indicator equals to one if CFSI > 0.05, and zero otherwise. All other variables are defined in Appendix A, and financial variables are scaled by market value of assets. Standard errors are corrected for cross-sectional and time-series dependence (Gow et al. [2010], Petersen [2009]). ***, **, and * indicate statistical significance at the 0.01, 0.05 and 0.10 level or better, respectively (two-tailed test).

Table 7
Reporting Conservatism and Payout Decisions

$$\Delta PAYOUT_{t+1} = \alpha + \psi \Delta CASH_t + \phi CASH_t + \zeta CONSV_{t-1} + \beta \Delta CASH_t * CONSV_{t-1} + \sum \gamma CONTROLS_t + \varepsilon_{t+1} \quad (6)$$

	(1) DIVDCHG			(2) REPURCHG		
	Coef.	*t-stats*		*Coef.*	*t-stats*	
ΔCASH	0.002	4.77	***	0.045	7.48	***
CASH	0.001	4.32	***	0.009	3.26	***
CONSV	-0.000	-1.69	*	0.000	0.02	
ΔCASH*CONSV	-0.007	-3.46	***	0.006	0.32	
BM	-0.001	-7.38	***	0.000	-0.41	
R&D	-0.001	-1.51		0.003	0.42	
SIZE	0.000	4.22	***	0.001	3.86	***
DIVD	-0.001	-5.88	***	-0.002	-5.44	***
LEVERAGE	-0.002	-6.64	***	-0.013	-8.67	***
CAPEX	-0.001	-2.33	**	0.010	1.85	*
CF	0.006	6.55	***	-0.011	-1.98	**
RET	0.001	5.59	***	0.000	0.10	
CFVOL	0.000	0.32		0.012	1.80	*
RETVOL	-0.003	-5.08	***	0.002	0.64	
ACQ	0.002	3.82	***	0.029	5.04	***
NWC	0.000	-0.37		0.004	2.63	***
CONSTANT	0.001	2.54	**	0.005	1.61	
Industry and Year FE	YES			YES		
Adjusted R^2	0.090			0.029		
Observations	42,648			28,443		

ΔPAYOUT refers to either dividend changes (DIVDCHG) or net repurchase changes (REPURCHG). All other variables are defined in the Appendix, and financial variables are scaled by market value of assets. Standard errors are corrected for cross-sectional and time-series dependence (Gow et al. [2010], Petersen [2009]). ***, **, and * indicate statistical significance at the 0.01, 0.05 and 0.10 level or better, respectively (two-tailed test).

Table 8

Cross-sectional Tests of the Association between Reporting Conservatism and Financial Decisions

$$REVENUE_t = \beta_0 + \beta_1*EXP_{t-1} + \beta_2*EXP_t + \beta_3*EXP_{t+1} + \beta_4*FIN + \beta_5*EXP_{t-1}*FIN + \beta_6*EXP_t*FIN + \beta_7*EXP_{t+1}*FIN + \varepsilon_t \quad (7)$$

	(1) FIN=$CASH_{t+1}$ $REVENUE_t$			(2) FIN=$\Delta CASH_{t+1}$ $REVENUE_t$			(3) FIN=$DISSUE_{t+1}$ $REVENUE_t$			(4) FIN=$CFSI_{t+1}$ $REVENUE_t$			(5) FIN=$DIVDCHG_{t+2}$ $REVENUE_t$			(6) FIN=$REPURCHG_{t+2}$ $REVENUE_t$		
EXP_{t-1}	0.08	7.66	***	0.07	7.82	***	0.21	9.77	***	0.07	7.46	***	0.08	8.25	***	0.09	11.25	***
EXP_t	0.96	80.74	***	0.96	57.79	***	0.76	18.21	***	0.96	81.69	***	0.96	72.86	***	0.95	62.56	***
EXP_{t+1}	-0.03	-5.92	***	-0.02	-1.75	*	0.04	1.42		-0.02	-4.28	***	-0.03	-4.47	***	-0.04	-3.90	***
FIN_{t+1}	-0.21	-8.64	***	0.09	2.04	**	0.16	14.13	***	-0.05	-7.52	***	3.65	8.86	***	-0.23	-5.15	***
EXP_{t-1}*FIN	0.17	3.28	***	0.08	1.19		-0.17	-7.64	***	0.02	1.98	**	-1.64	-1.86	*	0.21	2.51	**
EXP_t*FIN	-0.29	-3.66	***	-0.17	-1.18		0.26	5.98	***	-0.03	-1.91	*	1.07	0.83		-0.20	-1.49	
EXP_{t+1}*FIN	0.18	3.54	***	0.02	0.22		-0.10	-3.16	***	0.02	1.52		0.70	0.91		-0.03	-0.33	
FCF_{t+1}				0.36	14.58	***												
EXP_{t-1}*FCF_{t+1}				-0.22	-6.95	***												
EXP_t*FCF_{t+1}				0.32	7.37	***												
EXP_{t+1}*FCF_{t+1}				-0.06	-1.94	*												
$CASH_{t+1}$													-0.22	-9.99	***	-0.14	-6.31	***
EXP_{t-1}*$CASH_{t+1}$													0.20	3.84	***	0.13	2.33	**
EXP_t*$CASH_{t+1}$													-0.44	-3.41	***	-0.42	-3.10	***
EXP_{t+1}*$CASH_{t+1}$													0.24	2.95	***	0.29	3.37	***
$\Delta CASH_{t+1}$													0.30	6.89	***	0.31	6.84	***
EXP_{t-1}*$\Delta CASH_{t+1}$													-0.05	-0.66		-0.03	-0.37	
EXP_t*$\Delta CASH_{t+1}$													0.06	0.29		0.16	0.73	
EXP_{t+1}*$\Delta CASH_{t+1}$													0.01	0.07		-0.10	-0.81	
$CONSTANT_t$	0.02	4.01	***	0.02	3.71	***	-0.14	-11.70	***	0.03	7.09	***	0.02	4.76	***	0.02	4.37	***
Adjusted R^2	0.956			0.962			0.952			0.977			0.957			0.956		
Observations	94,467			94,467			22,569			53,321			92,688			60,799		

All variables are defined in the Appendix, and financial variables are scaled by average total assets.. Standard errors are corrected for cross-sectional and time-series dependence (Gow et al. [2010], Petersen [2009]). ***, **, and * indicate statistical significance at the 0.01, 0.05 and 0.10 level or better, respectively (two-tailed test).

Table 9

Cross-sectional Tests of the Association between Reporting Conservatism and Financial Decisions using Basu (1997) Model

$$EARNINGS_t = \beta_0 + \beta_1*NEG_t + \beta_2*RET_t + \beta_3*RET_t*NEG_t + \beta_4*FIN + \beta_5 NEG_t*FIN + \beta_6 RET_t*FIN + \beta_7 NEG_t*RET_t*FIN + \sum\gamma CONTROLS_t + \varepsilon_t \quad (9)$$

	(1) FIN=$CASH_{t+1}$ EARNING$_t$			(2) FIN=$\Delta CASH_{t+1}$ EARNING$_t$			(3) FIN=$DISSUE_{t+1}$ EARNING$_t$			(4) FIN=$CFSI_{t+1}$ EARNING$_t$			(5) FIN=$DIVDCHG_{t+2}$ EARNING$_t$			(6) FIN=$REPURCHG_{t+2}$ EARNING$_t$		
NEG_t	-0.01	-0.85		-0.01	-1.02		-0.03	-1.82	*	0.00	0.33		-0.01	-0.70		-0.01	-1.18	
RET_t	-0.01	-1.32		-0.01	-0.59		0.01	0.32		-0.01	-0.84		-0.01	-1.40		-0.02	-3.12	***
NEG_t*RET_t	0.27	6.65	***	0.25	5.74	***	0.31	6.43	***	0.29	5.80	***	0.27	6.54	***	0.27	7.06	***
FIN	-0.09	-3.30	***	0.08	2.19	**	0.07	8.53	***	-0.04	-5.35	***	1.79	4.02	***	-0.27	-6.07	***
NEG_t*FIN	-0.01	-0.45		0.05	0.80		0.03	2.17	**	-0.01	-0.58		-0.10	-0.24		-0.08	-1.02	
RET_t*FIN	-0.12	-3.20	***	-0.11	-3.07	***	0.00	0.29		0.01	0.64		2.09	3.22	***	0.10	1.38	
NEG_t*RET_t*FIN	0.31	2.29	**	0.30	1.95	*	-0.14	-2.79	***	-0.02	-0.78		1.94	0.66		0.03	0.12	
FCF_{t+1}				0.06	1.98	**												
NEG_t*FCF_{t+1}				-0.02	-0.45													
RET_t*FCF_{t+1}				0.19	5.12	***												
$NEG_t*RET_t*FCF_{t+1}$				-0.50	-4.63	***												
$CASH_{t+1}$													-0.11	-4.19	***	-0.09	-2.82	***
NEG_t*CASH_{t+1}													-0.02	-0.52		-0.01	-0.32	
RET_t*CASH_{t+1}													-0.14	-3.51	***	-0.13	-2.72	***
$NEG_t*RET_t*CASH_{t+1}$													0.29	2.24	**	0.24	2.03	**
$\Delta CASH_{t+1}$													0.16	5.36	***	0.09	3.46	***
$NEG_t*\Delta CASH_{t+1}$													0.03	0.61		0.06	0.77	
$RET_t*\Delta CASH_{t+1}$													0.05	1.28		0.10	3.68	***
$NEG_t*RET_t*\Delta CASH_{t+1}$													-0.01	-0.06		-0.11	-0.62	
$CONSTANT_t$	-0.05	-6.31	***	-0.06	-6.90	***	-0.13	-10.72	***	-0.02	-2.20	**	-0.05	-6.59	***	-0.01	-1.68	*
CONTROLS	YES			YES			YES			YES			YES			YES		
Adjusted R^2	0.15			0.15			0.22			0.15			0.16			0.13		
Observations	89,091			89,091			22,022			50,418			87,399			57,907		

$EARNINGS_t$ is earnings before extraordinary items (IB) scaled by market value of equity. RET_t is stock returns cumulated over the 12-month period ending 3 months after the fiscal year end. NEG_t is an indicator equals one if RET_t is negative. CONTROLS include BM, SIZE, LEVERAGE, an indicator variable for firm membership in high litigation risks industries and their interaction with NEG_t, RET_t and NEG_t*RET_t. All other variables are defined in the Appendix. Standard errors are corrected for cross-sectional and time-series dependence (Gow et al [2010], Petersen [2009]). ***, **, and * indicate statistical significance at the 0.01, 0.05 and 0.10 level or better, respectively (two-tailed test).