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Abstract: We study whether more asymmetrically timely earnings constrain payouts to shareholders in the presence of bad news. Our goal is to provide evidence on the *ex post* contracting benefits of accounting conservatism. We distinguish between cash flow asymmetric timeliness and accrual asymmetric timeliness to examine how each relates to asymmetric sensitivity of shareholder payouts. We find that only the asymmetric timeliness of cash flows is significantly related to the asymmetric sensitivity of shareholder payouts. Other measures of conservatism (earnings skewness and accumulated nonoperating accruals) are also not significantly related to the sensitivity of shareholder payouts given bad news. These results suggest that accounting policies do not significantly constrain shareholder distributions conditional on news that does not affect cash flows.

Keywords: Asymmetric timeliness, shareholder distributions

Data Availability: The data used in this study are from the public sources identified in the text.

I. Introduction

We study whether shareholder payouts are more sensitive to bad news when earnings are more sensitive to bad news. Our goal is to provide evidence on the benefits of conservative accounting for bondholders. We find that the sensitivity of payouts to bad news is related to the sensitivity of a firm's cash flows to bad news. However, we are unable to find a significant link between the sensitivity of accruals to bad news and payout sensitivity. While asymmetric timeliness is our primary measure of the sensitivity of earnings to bad news, we also examine the relation between payout sensitivity and other measures of accounting conservatism including earnings skewness and accumulated nonoperating accruals. Our results suggest that care should be exercised when drawing links between accrual decisions and contracting benefits based on measures of earnings conservatism.

Prior research claims that accounting conservatism can control the agency costs of debt (Ball, Kothari, and Robin, 2000, and Watts, 2003) and finds that greater conservatism is associated with a lower cost of debt (Ahmed, Billings, Morton, and Stanford-Harris, 2002, and Zhang, 2008) and greater leverage (Khan and Watts, 2007, and Frankel and Roychowdhury, 2007). Zhang's (2008) research ties the lower cost of debt to the potential benefits gained by the lender over the life of the loan. She shows that firms with more conservative accounting are more likely to violate covenants given bad news. Thus, accounting conservatism offers ex post contracting benefits to lenders by allowing them to renegotiate loan terms when the borrower's financial position deteriorates.

Research finds a positive association between current shareholder payouts and current earnings.[1] However, an unanswered question is whether earnings timeliness, particularly timeliness with respect to negative news, is associated with cross-sectional variation in the relation between shareholder payouts and stock returns. Differences in bondholder and stockholder preferences with regard to payout policy are a potentially significant source of agency costs (Jensen and Meckling, 1976, and Myers, 1977). Because of limited shareholder liability, bondholders would like expected losses to constrain payouts while not allowing expansion of payouts given expected gains. Using stock returns to measure gains and losses, we test whether cross-sectional variation in the asymmetric timeliness of earnings is associated with cross-sectional variation in the relation between payout policy and gains/losses. In this way, we extend Zhang's (2008) search for links between accounting conservatism and ex post benefits to lenders by examining the relation of accounting conservatism and payouts to shareholders.

Furthermore, we distinguish between the cash flow and the accrual components of earnings and relate the asymmetric timeliness of each component to the response of shareholder payouts to good and bad news. Cash-flow constraints directly affect payouts because a firm that does not have access to cash cannot distribute cash to its shareholders. For example, expected gains or growth options that are not yet realized in cash cannot be distributed to shareholders. In contrast, the relation between accruals and shareholder distributions is more complex. Accrual-based constraints operate via debt covenants, state laws, or implicit commitments enforced by reputation. Empirical evidence finds

[1] See for example, Lintner, 1956, Healy and Palepu, 1988, Bernartzi, Michaely, and Thaler, 1997 for evidence on the relation between dividends and earnings. Skinner, 2007, examines the correlation between payouts and earnings and finds a significantly positive relation between payouts and earnings for firms that make regular payouts between 1995 and 2005.

that special items are unrelated to payout policy (DeAngelo, DeAngelo, and Skinner, 1992, Skinner, 2004, and Skinner, 2007), raising questions about the accrual/payout relation.

Our method for studying the relation between asymmetric timeliness of earnings and corporate payouts is as follows. We investigate shareholder distributions by firms between 1997 and 2005. Asymmetric timeliness of earnings is measured via firm-specific-Basu (1997) regression estimated using annual earnings and stock returns for the current year and the previous nine years. Distributions to shareholders are defined as dividends plus stock repurchases less stock issuances.[2] We first examine how asymmetric timeliness of earnings interacts with asymmetric sensitivity of shareholder distributions. We measure the sensitivity of corporate distributions by regressing shareholder-distribution yields on stock returns. Consistent with Ball et al. (2000) and bondholder preferences, we demonstrate that shareholder distributions are more sensitive to negative returns than to positive returns. However, we find that asymmetric sensitivity of corporate distributions to bad news is positively, but not significantly related to asymmetric timeliness of earnings. The relation remains insignificant when earnings asymmetric timeliness is computed using earnings before special items.

Second, we estimate firm-specific measures of asymmetric timeliness of accruals and cash flows separately by regressing each of these earnings components on returns. Accruals are defined as earnings minus cash flows. Two definitions of accruals are used by defining cash flows as operating cash flows and as operating plus investing cash flows. We find that the asymmetric timeliness of cash flows is significantly and

[2] We use a comprehensive measure of net distributions under the assumption that wealth transfers from bondholders result from a reduction of net shareholders' equity. That is, if a firm pays a $1 dividend and issues $1 of stock, the value of debt remains the same.

positively related to the asymmetric sensitivity of distributions, regardless of how cash flows are defined. However, firms with more asymmetrically timely accruals do not have significantly more asymmetrically sensitive payouts. These results are robust to the inclusion of size, book-to-market, and leverage.

To better understand whether our inability to find a significant relation between accrual asymmetric timeliness and payout asymmetric sensitivity is the result of our methods, we employ alternative measures of accrual conservatism, re-estimate our measure of firm-specific asymmetric timeliness using a 15-year rather than a 10-year window, and attempt to isolate more powerful subsamples. The alternative measures of conservatism include (1) the ratio of R^2s from separate regression of accruals on returns when returns are negative and positive, (2) the skewness of earnings relative to the skewness of cash flows, and (3) accumulated nonoperating accruals. We are unable to find a significant relation between these measures of accrual asymmetric timeliness/conservatism and payout asymmetric sensitivity. Next, we re-estimate firm-specific asymmetric timeliness using a 15-year estimation window rather than a 10-year window. In this specification, the relation between accrual asymmetric timeliness and payout asymmetric sensitivity remains insignificant. Finally, we re-estimate the relation between accrual asymmetric timeliness and payout asymmetric sensitivity in firms where conflicts between bondholders and shareholders are likely to be more pronounced (i.e., firms with high leverage, firms with low debt ratings, firms with more volatile ROA). The relation between accrual asymmetric timeliness and payout asymmetric sensitivity continues to be insignificant. Given that the relation between operating cash flow asymmetric timeliness and payout asymmetric sensitivity continues to be significant in

many of these alternative tests, we conclude that lack of power and inappropriate estimation methods are unlikely to be the reason for a lack of a significant finding with regard to accrual asymmetric timeliness.

Our results suggest that greater asymmetrically-timely recognition of non-cash losses relative to gains does not significantly contribute to the asymmetric sensitivity of shareholder distributions. Cash flows play a more decisive role in shaping the asymmetric sensitivity of shareholder distributions than accruals. Firms that are more asymmetrically timely in the *realization* of losses relative to gains are more asymmetrically timely in reducing shareholder distributions in the presence of losses relative to increasing shareholder distributions given gains.

The paper is organized as follows. In Section II, we develop our hypotheses. In Section III, we describe the data, discuss our research design, and report empirical results. In Section IV, we conclude.

II. Hypothesis Development

2.1 Asymmetric sensitivity of shareholder payouts and bondholder/stockholder conflicts

The distribution of assets to shareholders can increase shareholder wealth despite a reduction in enterprise value when the efficiency loss is offset by the wealth transfer from the bondholders to the shareholders (Galai and Masulis, 1976, and Myers, 1977). To limit the expected efficiency loss, shareholders and bondholders can agree, ex ante, to restrict dividends (Jensen and Meckling, 1976, and Myers, 1977). However, agency costs arising from shareholders' relations with managers suggest that the corner solution of paying no dividend is also inefficient (Grossman and Hart, 1980, Easterbrook, 1984,

Jensen and Meckling, 1986). If no shareholder distributions are made, the cash retained by successful firms would likely exceed their investment opportunities. DeAngelo, DeAngelo, and Stulz (2004) find that if the 25 largest long-standing dividend payers had paid no dividend between 1950 and 2002, they would accumulate $1.6 trillion in cash and their cash balances would exceed 51% of total assets rather than the current 6% of total assets. Therefore, shareholders seek to pay dividends while simultaneously limiting the payout-related wealth transfers. Payout restrictions are often implemented via debt covenants with accounting-based benchmarks (e.g., Smith and Warner, 1979, Kalay, 1982, Leftwich, 1983, and Watts and Zimmerman, 1986). Ball, Kothari, and Robin (2000) and Watts (2003) argue that asymmetric timeliness of earnings can increase the efficiency of accounting-based debt covenants. That is, covenant benchmarks using asymmetrically timely earnings as an input can more effectively thwart distributions to shareholders that transfer wealth from bondholders.[3]

Up-side limits on the value of the bondholders' claim and their ex-post-settling-up problem with shareholders imply that bondholders prefer a dividend policy that constrains payouts in the face of expected losses but does not allow payouts to increase in light of anticipated gains. A simple example illustrates this point. Assume a two-period world. The initial value of the firm's assets exceeds the promised payment on its debt by $1. The debt matures at the end of period two. The initial value of assets is not subject to variation, and thus in the absence of new projects or interim payouts to shareholders, bondholders are assured of receiving their promised payment.

[3] Conflicts between bondholders and shareholders also arise because of asset substitution. Asymmetric timeliness of accounting earnings can also reduce these conflicts by making managers more risk averse. If managers are compensated based on accounting earnings, immediate recognition of anticipated losses and delayed recognition of gains imply that the present value of compensation declines as the variance of economic earnings increases.

Assume that the firm undertakes a new project at the beginning of period one.

Case 1. Assume that the project pays off either \$1 or \$0 at the end of period two. At the end of period one, the firm learns the probability of the positive payoff, p, and thus the expected value of the project (and the firm). However, this probability does not affect the liquidation value of the firm. Shareholders can receive a dividend in period one. Assume that the dividend is restricted to be \$1 plus period-one earnings. If the expected payoff of the project is recognized as period-one earnings, a dividend of \$1+\$$p$ can be paid to shareholders, but this dividend results in a transfer of wealth from the bondholders. If period-one earnings recognize \$$p$, bondholders' expected loss is -(1-p)*\$$p$. If the eventual payoff from the project is zero, bondholders receive the promised payment on the debt minus \$$p$. If the project yields \$1, bondholders only receive the promised payment on the debt. Bondholders would prefer that no dividend beyond \$1 be paid until the gain is realized. Thus, if the allowable dividend was \$1 plus earnings in period one, bondholders would prefer that \$$p$ not be recognized as earnings.

Case 2. Alternatively, assume that the project offers a chance of a negative payoff instead of a positive payoff, videlicet, the potential payoff at the end of period two is -\$1 with probability p and zero with probability 1-p. In this case, the bondholders prefer that period-one earnings recognize the expected loss rather than ignore it. If the loss is not recognized, shareholders can receive a dividend of \$1 in period one and bondholders' expected loss is -\$$p$. Recognition of the expected project loss in earnings reduces dividend payment in period one by \$$p$ and bondholders' expected loss to \$$p^2$-\$$p$. Thus, if earnings is used to determine the maximum interim dividend, bondholders prefer asymmetric recognition of gains and losses. That is, they wish expected losses to be

recognized in earnings and prefer that recognition of expected gains be delayed until they are realized.

In this example, payment of dividend does not affect investments and therefore does not lead to an efficiency loss. Thus, the shareholders have no clear preference for asymmetrically timely loss recognition. Bondholders will price the expected wealth transfers in the initial loan terms and shareholders will pay for expected wealth transfers. However, if transferring wealth via interim distributions leads shareholders to forego positive net present value investments, and if bondholders are price protected, shareholders have an incentive to "tie their hands" so that the firm is not expected to deviate from market-value maximization and to do so at the lowest possible cost (Fama, 1978). Thus, shareholders will prefer asymmetric recognition of gains and losses because asymmetrically timely loss recognition enhances the ability of the debt contract to reduce the deadweight loss associated with wealth transfers.

The above example suggests that bondholders prefer that no dividend be paid. However, this restriction is costly if the rate of return earned on cash retained by the firm is lower than the rate that could be earned in the pockets of shareholders. Therefore, shareholders will seek an alternative that permits dividends to be paid in situations where a wealth transfer is unlikely. The example illustrates that debt covenants combined with asymmetrically timely earnings recognition can provide this alternative by reducing the expected loss to bondholders that can accompany shareholder distributions. Bondholders prefer asymmetrically timely earnings because it does not recognize anticipated gains and thus reduces the ex-post-settling-up problem that results when dividends are paid on anticipated gains. Because of asymmetric timeliness of earnings, shareholders' equity

and thus slack of debt covenants decrease in light of bad news (expected losses) but do not increase given good news (expected gains).

2.2 Asymmetric sensitivity of shareholder payouts and asymmetric timeliness of earnings

Current shareholder distributions are a function of multiple variables besides current earnings. For example, Lintner (1956) shows that dividends tend to be path dependent. Skinner (2007) provides evidence that since 1980, firms who continue to pay dividends do so because they have done so in the past. When making stock repurchase decisions, managers consider EPS effects and market timing as well as residual cash flows (Brav et al., 2005). Moreover, current-period accruals, per se, do not constrain current-period payouts. Therefore, in the absence of debt covenants, legal constraints, reputation costs, etc., symmetric timeliness of earnings does not necessarily imply asymmetrically sensitive distributions.

To analyze the relation between earnings and shareholder payouts, we begin by writing earnings as a function of operating cash flows and accruals. Next, we relate each of these components to shareholder distributions. Following Sloan (1996), we define earnings as follows:

$$\text{Earnings}(t-1, t) = \text{OCF}(t-1, t) + \text{Accruals}(t-1, t), \quad (1)$$

where Earnings(t-1, t) is net income between time t-1 and t, OCF is operating cash flows, and Accruals are increases in non-cash current assets minus increases in current liabilities (excluding the current portion of long-term debt) minus depreciation expense.[4] The change in cash is represented by the following formula:

$$\text{Cash}(t-1) + \text{OCF}(t-1, t) + \text{ICF}(t-1, t) + \text{FCF}(t-1, t) = \text{Cash}(t), \quad (2)$$

[4] Capitalization of cash expenditures giving rise to long-term assets is also an accrual. Our tests include a broader definition of accruals that includes the effects of these investments.

Where ICF is investing cash flows, and FCF is financing cash flows. Kalay (1982) uses a similar formula. We decompose FCF(t-1, t) as follows:

$$FCF(t-1, t) = DEBT\_Issue(t-1, t) + EQ\_Issue(t-1, t), \quad (3)$$

where DEBT_Issue is net debt issuance, EQ_Issue is net equity issuance (i.e., issuance minus repurchases minus dividends paid). Substituting equation (3) into equation (2) and rearranging terms yields the following relation between shareholder distributions and cash flows:

$$EQ\_Issue(t-1, t) = Cash(t) - Cash(t-1) - OCF(t-1, t) - ICF(t-1, t) - DEBT\_Issue(t-1, t) \quad (4)$$

Equation (4) expresses the tautological relation between EQ_Issue and OCF. Because EQ_Issue > 0 implies that the firm is a net issuer of stock, more operating cash flows imply greater net distributions to shareholders.[5] Thus, asymmetrically timely operating cash flows imply asymmetrically sensitive net payouts.[6]

However, the relation between EQ_Issue and earnings is not unambiguously specified via the cash flow formula. Rewriting equation (1) in terms of OCF and substituting for OCF in equation (4) link Earnings to EQ_Issue.

$$EQ\_Issue(t-1, t) = Cash(t) - Cash(t-1) - Earnings(t-1, t) + Accruals(t-1, t) - ICF(t-1, t) - DEBT\_Issue(t-1, t) \quad (5)$$

That is, increases in Earnings are not tautologically linked to increases in EQ_Issue. To the extent that the source of Earnings is operating cash flows, equation (4) links Earnings

[5] According to equation (3), this statement is true *ceteris paribus*. We do not imply that this statement is true empirically. Firms faced with lower operating cash flows can cut capital expenditures to sustain shareholder payouts. Survey evidence by Brav et al. (2005) suggests that financial executives place dividend decisions and investment decisions on equal footing.

[6] This paper is not intended to examine why cash flows are asymmetrically timely. A possible reason for asymmetric timeliness of cash flows is managers' desire to minimize present value of taxes. For example, managers are more likely to abandon losing projects that will lead to recognition of losses than those associated with gains.

to shareholder distributions. However, if the source of Earnings is an increase in Accruals, equation (5) provides no formulaic link between earnings and shareholder distributions.

The relation between the income statement and the balance sheet provides a formula that can, via legal restriction, create a direct relation between current accruals and current shareholder distributions.

$$ShareEq(t) = Earnings(t-1, t) + EQ\_Issue(t-1, t) + OCI(t-1, t) + ShareEq(t-1), \quad (6)$$

where ShareEq is the level of shareholders' equity and OCI is other comprehensive income. Solving (6) for EQ_Issue yields

$$EQ\_Issue(t-1, t) = -Earnings(t-1, t) - OCI(t-1, t) + (ShareEq(t) - ShareEq(t-1)). \quad (6a)$$

According to equation (6a), holding fixed OCI(t-1,t) and the change in ShareEq, increased Earnings imply increased net distributions to shareholders whether the source of earnings is accruals or operating cash flows. By requiring ShareEq(t) to exceed a predetermined threshold, a debt covenant enforces the mathematical relation between Earnings and EQ_Issue given in (6a). For lenders seeking to curtail shareholder distributions that increase the riskiness of debt, restrictions based on shareholders' equity have an advantage over cash-based restrictions. Unlike cash-based restrictions, the borrower cannot relax shareholders'-equity-based constraints by increasing investing cash flows (e.g., selling property, plant and equipment) or additional borrowing. The disadvantage of shareholders'-equity-based covenants is that managers can forestall technical default by accrual-increasing accounting choices (Defond and Jiambalvo, 1994, Sweeney, 1994, Dichev and Skinner, 2002).

The incremental effect of accounting earnings beyond cash flows in restricting shareholders payouts is unclear because negative covenants preventing liquidation of property and additional senior borrowing are common.[7] These covenants prevent payouts that cannot be financed by operations by restricting actions rather than setting minimum accounting outcomes. Thus, these covenants can substitute for and reduce the economic importance of shareholders'-equity-based covenants and simultaneously reduce the contracting importance of accruals.

The analysis in this section suggests the importance of determining whether the relation between payout policy and earnings arises from operating cash flows or accruals. The relation between operating cash flows and payout policy stems from the cash-flow formula. This formulaic relation could lead to an empirical relation between earnings characteristics and payout policy characteristics. In fact, Skinner (2007) finds that net repurchases are significantly related to earnings between 1995 and 2005. We extend his findings by examining whether the asymmetric timeliness of earnings is related to the asymmetric sensitivity of payouts.

In addition, to understand whether payout characteristics are related to accounting policy decisions, we examine the relation between payout policy characteristics and the characteristics of accruals. In particular, if balance sheet constraints shape payouts, we expect accrual characteristics to be associated with payout characteristics. This discussion suggests three hypotheses:

[7] For example, a 29 March 2002 lending agreement between Silicon Valley Bank and Insightful Corporation prevents Insightful from selling equipment, without lender approval, unless it is "worn-out or obsolete." Similarly, a 15 November 2004 lending agreement between Arlie Opportunity Master Fund, Ltd. And Mobilepro Corp. prevents the sale of any assets unless assets are sold at market value and proceeds are used to repay the loan.

H1: Asymmetric sensitivity of shareholder distributions is positively associated with asymmetric timeliness of earnings.

H2: Asymmetric sensitivity of shareholder distributions is positively associated with asymmetric timeliness of cash flows.

H3: Asymmetric sensitivity of shareholder distributions is positively associated with asymmetric timeliness of accruals.

III. Data and Empirical tests

3.1 Sample selection and data description

Our sample consists of firm-year observations with necessary data during 1997-2005. Our sample period begins in 1997 because operating cash flows (COMPUSTAT #308) are available for most firms starting in 1988 and we require cash-flow-statement data for ten years to compute the asymmetric timeliness of cash flows and accruals for each firm-year observation. We exclude financial firms (SIC between 6000 and 6999) and utility firms (SIC between 4999 and 5000) because regulatory oversight can affect payout policy. We also exclude American Depository Receipts (ADRs) and firms designated as pre-FASB. Finally, we eliminate firm-years with negative assets or sales. Continuous variables are winsorized at the 1st and 99th percentile of their respective distributions.

We measure asymmetric timeliness of earnings using Basu (1997) regression.

$$E_{i,t}/MVE_{i,t-1} = \alpha_0 + \alpha_1 NEGRET_{i,t} + \alpha_2 RET_{i,t} + \alpha_3 NEGRET_{i,t} * RET_{i,t}, \quad (7)$$

where $E_{i,t}$ is the earnings before extraordinary items of firm i in year t,[8] $RET_{i,t}$ is the stock returns for firm i in year t, $NEGRET_{i,t}$ is an indicator variable equal to one if returns for firm i in year t are negative, and $MVE_{i,t-1}$ is the market value of common equity for firm i at the beginning of year t. In regression (7), stock returns are used as a proxy for economic gains and losses. If accounting earnings recognize economic losses more quickly than gains, the association between accounting earnings and stock returns is expected to be higher when stock returns are negative. Thus, the coefficient α_3 on NEGRET*RET measures the incremental timeliness of loss recognition in earnings and serves as our first and primary measure of asymmetric timeliness of earnings (AT). Our second measure is based on the relative explanatory power of stock returns for earnings in years with bad news compared to that in years with good news. It is defined as the ratio of r-square of regression (7) (excluding terms containing NEGRET) estimated using negative return years to the r-square of the regression estimated using positive return years (R^2_{bad}/R^2_{good}). We also use regression (7) to estimate asymmetric timeliness of operating cash flows (Compustat #308) and the asymmetric timeliness of accrual component (earnings - Compustat #308).[9]

To obtain a firm-year-specific measure of asymmetric timeliness of earnings, cash flows and accruals, we estimate regression (7) for each firm in each year over the ten-year period from year t-9 to year t. To implement the estimation, we require that the firm

[8] Research shows that special items are not related to payout policy (DeAngelo et al., 1992, Skinner, 2004, and Skinner, 2007). Therefore, in untabulated analyses, we remove special items from earnings and get qualitatively similar results.

[9] We also employ an alternative definition of cash flows and accruals in our tests: cash flows are defined as the sum of operating cash flows and investing cash flows (Compustat #308 + Compustat #311), and accruals are defined as the difference between earnings and cash flows. We examine the effect of this definition on our results because the distinction between operating cash flows and investing cash flows is subject to management discretion and can vary with a firm's accounting policy. For example, a firm may decide that R&D related to software meets the criteria for capitalization and classify payments as investing cash flows.

have non-missing data for earnings or its cash flow or accrual component, stock price and returns during the ten years. To increase the power of our α_3 estimate, we require that the firm have at least two years and at most eight years with negative returns during the ten-year period. Similarly, to meaningfully estimate R^2_{bad}/R^2_{good}, we require that the firm have at least three years and at most seven years with negative returns during the ten-year period.

Besides asymmetric timeliness, we use two additional measures of conservatism employed in the literature (e.g., Givoly and Hayn, 2000, and Zhang, 2008). The first is the relative skewness of earnings (CONSV_skew), defined as the skewness of earnings divided by the skewness of operating cash flows for each firm over a ten-year period from year t-9 to year t, multiplied by -1. Earnings are likely to be negatively skewed if bad news is incorporated into earnings in a more timely manner. Losses will tend to be larger than gains because gains will be spread across multiple periods. We multiply the ratio of earnings' skewness to cash flows' skewness by -1 so that a larger value indicates greater conservatism. The second measure is accumulated nonoperating accruals divided by accumulated total assets (CONSV_accrual). Accumulated nonoperating accruals reflect bad news recorded over time. We also multiply this measure by -1 so that a higher CONSV_accrual value indicates that accrual recognition is more conservative.

We derive our measure of shareholder distributions (NetPayout) from information in the financing section of the Statement of Cash Flows. Our intent is to measure net distributions to existing shareholders that directly transfer wealth from existing bondholders to existing shareholders. Allen and Michaely (2003) document that cash paid to target shareholders in cash acquisitions can exceed cash paid to the firm's existing

shareholders in the form of repurchases and dividends. From the point of view of the firm's bondholders, cash-based acquisitions are similar to investments. The firm exchanges a less risky asset (cash) for a more risky asset (e.g., receivables, inventory, PP&E, goodwill). Any debt assumed by the acquirer is economically similar to debt used to finance investment. While cash-based acquisitions affect the value of the firm's debt and can result in wealth transfers from bondholders to stockholders, they are an exchange with target shareholders rather than a distribution to existing shareholders. These transactions are economically distinct from asset distributions to the firm's existing shareholders. Our payout measure excludes the effects of cash-based acquisitions.

Stock-based acquisitions are also an exchange between the firm and target shareholders. However, the effect of a stock-based acquisition can be economically similar to the issuance of stock. For example, if an unlevered target whose only asset is cash is acquired for stock, the transaction is equivalent to the issuance of stock, provided the value of stock offered is equal to the value of the target's cash (i.e., no goodwill arises). Alternatively, if the assets acquired cause the variance of combined assets to exceed the variance of the acquirer's pre-acquisition assets, the acquisition can reduce the value of debt and is not economically similar to the issuance of stock for cash. Our measure of net payout is not affected by stock-based acquisitions unless the acquirer first repurchases stock for cash and then exchanges the repurchased stock for the stock of target shareholders. We capture the repurchase side of the transaction. Our measure excludes the equity-based investment (i.e., the exchange of acquirer equity for target equity). To test the sensitivity of our results to the effects of non-cash acquisitions, we

rerun our tests excluding observations with equity-based acquisitions in the current and the subsequent year. The results are discussed in robustness tests (section 3.4).

Acquisitions highlight the link between investment and payouts to shareholders. This relation is made explicit when equity is used to finance an investment as can occur in the case of an acquisition. However, the use of equity to finance the acquisition of a firm is similar to the use of equity to finance a project. Equation (4) indicates that operating cash flows, investing cash flows, and financing cash flows are related. The relation between operating cash flows and financing cash flows can be viewed as the residual of the relation between financing cash flows and investing cash flows. For example, if current bad news leads to increases in investment, we will find reductions in shareholder payouts associated with bad news. Such reductions are necessitated by the firm's investment strategy, not its earnings properties. To control for the effects of investment, we include investing cash flows (level and change) as an independent variable in our estimations in robustness analyses.

Another issue arising with respect to measurement of shareholder distributions is stock purchased to cover the exercise of stock options or for employee stock ownership plans (ESOP) (Fama and French, 2001). The cash used to purchase shares is an outflow of assets to existing shareholders and is not different from a straight repurchase. Our cash-based measure (NetPayout) treats these repurchases as a distribution. However, our measure ignores the subsequent reissuance of shares to the extent that no cash is received. This treatment of share reissuance is appropriate for our purpose because shares distributed to employees through an ESOP or via stock option exercises do not reduce shareholders' equity. They dilute the holdings of existing shareholders. That is, they do

not reduce the size of the pie; they create more slices so that each piece of the pie is worth less. As such, granting shares to an employee does not have the direct effect on bondholders that accompanies the payment of a dividend or the issuance of shares for cash.[10]

Variable definitions for the experimental and control variables are provided in Table 1. Table 2 reports descriptive statistics. Panel A of Table 2 shows that the mean of NetPayout is negative. On average firms are net issuers of stock, raising capital from shareholders at a magnitude of 1.69% of beginning market value of equity. Under the primary definition of asymmetric timeliness (i.e., the coefficient on NEGRET*RET in regression (7)), asymmetric timeliness of earnings (AT_EARN) has a mean (or median) of 0.0770 (or 0.0340), suggesting that earnings of sample firms more rapidly incorporate bad news compared to good news. The means and medians of asymmetric timeliness of earnings components - cash flows and accruals - are also significantly positive. Asymmetric-timeliness property of both components contributes to the asymmetric timeliness of earnings. Similar results are obtained for the second definition of asymmetric timeliness (R^2_{bad}/R^2_{good}), i.e., earnings, cash flows and accruals incorporate bad news in a more timely manner. For the other two measures of conservatism, average CONSV_accrual is positive, while average CONSV_skew is negative.

Panel B of Table 2 presents the pair-wise Pearson correlations among key variables used in our tests. Net payout (NetPayout) to common shareholders is negatively correlated with asymmetric timeliness of earnings (AT_EARN), asymmetric

[10] Employee stock ownership can have indirect effects on bondholders by altering the incentives of managers (e.g., Begley and Felthman, 1999, and Lambert, Lanen, and Larker, 1989). Beatty (1995) discusses the tax, capital structure, employee benefit, and corporate control effects of ESOPs. In addition, when a firm pays its employees with cash, the payment reduces the value of debt and equity. When a firm pays its employees with stock, equity holders bear the cost via dilution.

timeliness of accruals (AT_ACC) and accumulated nonoperating accruals (CONSV_accrual). Net payout is negatively correlated with market-to-book ratio (MB), indicating that firms with more growth opportunities invest more and pay out less to shareholders. Net payout is positively correlated with leverage and firm size (LogMVE). Asymmetric timeliness of earnings (AT_EARN) is positively correlated with asymmetric timeliness of accruals (AT_ACC) and asymmetric timeliness of cash flows (AT_OCF).

Asymmetric timeliness of accruals (AT_ACC) and asymmetric timeliness of cash flows (AT_OCF) are highly negatively correlated. One possible explanation is that firms implement accrual policies to achieve an optimal AT_EARN (AT_EARN*) and AT_OCF is pre-determined by the firm's prior production and investment decisions. In this case, firms would choose AT_ACC such that the combination of AT_OCF and AT_ACC leads to AT_EARN*, which suggests an inverse relation between AT_OCF and AT_ACC.

3.2 Association between asymmetric sensitivity of shareholder distributions and asymmetric timeliness of earnings, cash flows and accruals

To investigate whether asymmetric timeliness of earnings (AT_EARN) reduces corporate distributions to shareholders in the presence of bad news, we examine the association between asymmetric sensitivity of shareholder distributions and AT_EARN. We begin by estimating the asymmetric sensitivity of net shareholder distributions using regression (8).

$$NetPayout_{i,t} = \alpha_0 + \alpha_1 NEGRET_{i,t} + \alpha_2 RET_{i,t} + \alpha_3 NEGRET_{i,t} * RET_{i,t}, \quad (8)$$

Regression (8) is similar to the Basu (1997) model, except that the dependent variable is shareholder-distribution yield rather than earnings-price ratio. If corporate distributions

are more sensitive to negative news, they should have a greater association with negative stock returns, where $NEGRET_{i,t}$ and $RET_{i,t}$ are defined as in regression (7). $NetPayout_{i,t}$ is net payout to common shareholders of firm i in year t, deflated by firm i's market value of common equity at the beginning of year t. NetPayout is defined as cash dividends, plus stock repurchases (Compustat #115) minus equity issuances (Compustat #108). We use cash dividend, instead of total dividends, to common shareholders under the assumption that stock dividends do not affect a firm's ability to repay debtholders. To compute cash dividends to common shareholders, we subtract preferred dividends (Compustat #19) from total dividends on the Statement of Cash Flows (Compustat #127). To remove repurchases and new issuances related to preferred stock, we follow Grullon and Michaely (2002) to add back reductions in the redemption value of preferred stock (Compustat #56).[11]

Our method is similar to Ball et al. (2000) who examine the asymmetric timeliness of dividends. We use a broader measure to capture net distributions to shareholders. A dollar distributed to shareholders affects debtholders in the same manner whether the distribution occurs via a share repurchase or a one-time dividend. Similarly, if a firm pays dividends and offsets these dividends with proceeds from a stock offering, the firm's ability to pay back bondholders is not affected.[12]

We report estimation results from equation (8) in Table 3. We find that the coefficient α_3 on NEGRET*RET is significantly positive, suggesting that net payout is

[11] We focus on payouts to common shareholders under the assumption that the voting rights of common shareholders allow them to pressure managers to make decisions that transfer wealth from the bondholders. However, we find similar results to those tabulated if dividends, repurchases, and issuances related to preferred stock are included in the payout measures.

[12] Untabulated results suggest that NetPayout has insignificant serial correlation for 83% of our sample firms, while changes in NetPayout exhibit negative serial correlation in 55% of our firms. These results suggest that differencing to remove serial correlation is not appropriate.

more sensitive to negative news than to good news. This result is consistent with the dividend result for U.S. firms in Ball et al. (2000).[13] The negative coefficient on RET suggests market timing of a firm's shareholder distributions. For example, when the performance of a firm's stock is good (i.e., RET>0), the firm tends to make less payout to shareholders by issuing more stock and repurchasing less.[14]

Next, to examine how asymmetric sensitivity of shareholder distributions interacts with asymmetric timeliness of earnings (AT_EARN), we add AT_EARN and its interaction with stock returns to regression (8). The expanded regression is as follows.

$$\begin{aligned} NetPayout_{i,t} = {} & \alpha_0 + \alpha_1 NEGRET_{i,t} + \alpha_2 RET_{i,t} + \alpha_3 NEGRET_{i,t} * RET_{i,t} \\ & + \beta_0 AT\_EARN_{i,t} + \beta_1 NEGRET_{i,t} * AT\_EARN_{i,t} \\ & + \beta_2 RET_{i,t} * AT\_EARN_{i,t} + \beta_3 NEGRET_{i,t} * RET_{i,t} * AT\_EARN_{i,t}. \end{aligned} \quad (9)$$

If shareholder distributions are more sensitive to bad news when asymmetric timeliness of earnings (AT_EARN) is greater, we expect a positive coefficient on NEGRET*RET*AT_EARN (Hypothesis 1).

Estimation results for regression (9) using our primary measure of asymmetric timeliness (i.e., coefficient on NEGRET*RET in regression (7)) are presented in column (1) of Table 4 Panel A.[15] We find a positive but insignificant coefficient on NEGRET*RET*AT_EARN. Thus the asymmetric sensitivity of net payout to shareholders is not significantly related to the asymmetric timeliness of earnings. In

[13] We find similar results when using the level of dividends to common stockholders as the dependent variable.

[14] When we use dividend, instead of net payout, as the dependent variable, the coefficient on RET is also negative, consistent with the finding on dividend for U.S. firms in Ball et al. (2000).

[15] To reduce the impact of outliers and estimation noise of asymmetric timeliness (AT) or conservatism (CONSV) measures, we use the percentile rank of each AT or CONSV measure in regression estimations. Our results are robust to using raw measures winsorized at the 1st and 99th percentile of their respective distributions.

columns (3) and (5), we examine the relation between asymmetric sensitivity of net payout and asymmetric timeliness of earnings components—cash flows (AT_OCF or AT_CF) and accruals (AT_ACC or AT_ACCOI) (Hypotheses 2 and 3). We find significantly positive coefficients on NEGRET*RET*AT_OCF (column (3)) and NEGRET*RET*AT_CF (column (5)), indicating that asymmetric sensitivity of net payout to shareholders becomes more pronounced as asymmetric timeliness of cash flows grows (Hypothesis 2), under both measures of cash flows. However, asymmetric timeliness of accruals is not significantly related to the asymmetric sensitivity of shareholder distributions. The coefficient on NEGRET*RET*AT_ACC (column (3)) or NEGRET*RET*AT_ACCOI (column (5)) is not significant. These results suggest that the cash flow relation in equation (4) imposes a binding constraint on payouts to shareholders, while the shareholders' equity relation in equation (6a) does not. Thus, we are unable to provide evidence consistent with the notion that changes in accounting policies with regard to accruals are instrumental in limiting wealth transfers between bondholders and shareholders.

Research shows that asymmetric timeliness of earnings (AT_EARN) is highly correlated with leverage, market-to-book ratio, and firm size (e.g., Khan and Watts, 2007, and Frankel and Roychowdhury, 2007). To test whether the effect of AT of earnings or its components on asymmetric sensitivity of shareholder distributions is incremental to the effects of leverage, market-to-book, and firm size, we add these variables and their interactions with stock returns to regression (9). Columns (2), (4) and (6) of Table 4

Panel A present the estimation results of these expanded regressions. After controlling for the effects of leverage, book-to-market, and firm size, we get similar results.[16]

Due to the difficulty in estimating asymmetric timeliness of earnings or its components at firm level, estimation noise can be a potential reason for the insignificant relation between asymmetric sensitivity of payouts and asymmetric timeliness of earnings or accruals. To better understand the relation between accrual asymmetric timeliness and payout asymmetric sensitivity, we report the estimation results of regression (9) using alternative asymmetric timeliness or conservatism measures in Panels B, C and D of Table 4. In Panel B, we report the estimation results using the second measure of asymmetric timeliness - relative explanatory power of stock returns for earnings in years with bad news compared to that in years with good news (R^2_{bad}/R^2_{good}). In column (2), the coefficient on NEGRET*RET*AT_EARN is marginally significant. After dividing earnings into accruals and cash flows, the coefficients on NEGRET*RET*AT_ACC in column (4) and on NEGRET*RET*AT_ACCOI in column (6) are not significant. Therefore, we do not find evidence suggesting that firms with more asymmetrically timely accruals have more asymmetrically sensitive payouts. In column (6), the coefficient on NEGRET*RET*AT_CF is significant, consistent with the result on cash flows in Panel A. We report the estimation results using the other two measures of conservatism, relative skewness of earnings (CONSV_skew) and accumulated nonoperating accruals (CONSV_accrual), in Panel C. We do not find that the asymmetric sensitivity of net payout changes with either measure. To reduce estimation noise in asymmetric timeliness measures, we increase the estimation period from 10

[16] In untabulated robustness analysis, to control for the effect of investment on shareholder payout, we also add a firm's investing cash flows and its change in investing cash flows and the interactions of these two variables with stock returns to regression (9). Results are qualitatively similar.

years to 15 years (year t-14 to year t) and re-estimate regression (9) using 15-year measures. In Panel D, we report the estimation results using our primary definition of asymmetric timeliness (i.e., the coefficient on NEGRET*RET in regression (7)) estimated over 15 years. The coefficient on NEGRET*RET*AT_EARN or NEGRET*RET*AT_ACC is still not significant. The coefficient on NEGRET*RET*AT_OCF continues to be significant.

The results in Panels B, C and D of Table 4 show that payout asymmetric sensitivity does not change with accrual asymmetric timeliness or conservatism, no matter how accrual asymmetric timeliness or conservatism is measured. Such results suggest that noise or low power in the estimation of asymmetric timeliness measures do not appear to explain the insignificant result for accrual asymmetric timeliness, especially given the significant result for cash flow asymmetric timeliness in these analyses.

3.3 Association between asymmetric sensitivity of shareholder distributions and asymmetric timeliness of accruals in subsamples with pronounced shareholder-debtholder conflicts

Overall, in Table 4, we do not find evidence suggesting that accrual policies affect asymmetric sensitivity of shareholder payouts. One possible explanation for this result is that accrual policies do not matter in the overall sample because shareholder-debtholder conflicts with regard to payouts are irrelevant for firms with low conflicts. Therefore, we focus on firms with more pronounced shareholder-debtholder conflicts and re-examine the relation between payout asymmetric sensitivity and accrual asymmetric timeliness.

We identify subsamples with magnified shareholder-debtholder conflicts in three ways. First, we study firms with leverage higher than the median. Higher leverage implies that there is greater claim on the firm's assets by debtholders and that firm value

is likely to be closer to the value of the debt. Shareholder-debtholder conflicts intensify as the value of assets approaches the value of liabilities. Second, we examine firms with long-term public debt rating below investment grade (i.e., below BBB-). DeAngelo and DeAngelo (1990) find that dividend reductions for firms in financial distress are often associated with binding debt covenants. To focus our attention on situations where covenants are apt to be more binding and where wealth-redistributing payouts are more likely, we examine whether asymmetric sensitivity of payouts is associated with asymmetric timeliness of accruals for firms in financial distress identified using long-term public debt rating. And third, we focus on firms with standard deviation of return on assets (STDROA) in the past six years higher than the median. Performance uncertainty is greater for firms with more volatile ROA and therefore debtholders of these firms want to put a greater constraint on shareholder distributions given anticipated gains in case such gains will not be realized in the future.

In Table 5, we report the estimation results for these three subsamples. We do not find an association between asymmetric sensitivity of payouts and asymmetric timeliness of accruals. The coefficient on NEGRET*RET*AT_ACC is insignificant in all three subsamples. In the subsamples of firms with high leverage or high standard deviation of ROA, the coefficient on NEGRET*RET*AT_OCF is significantly positive. Therefore, the results in Table 5 are consistent with the primary results in Table 4 Panel A: Payout asymmetric sensitivity increases with cash flow asymmetric timeliness, but does not change with accrual asymmetric timeliness.

3.4 Robustness tests

Corporate law seeks to protect creditors by requiring firms to maintain some excess of asset values over liability values and thus allows dividend payments only if the firm meets certain capital requirements (Cox and Hazen, 2003). Statutory dividend restrictions vary by state and can include one or more of the following characteristics: (1) prohibition of dividend payments by insolvent firms, (2) the requirement of some general surplus of assets in excess of liabilities,[17] (3) the requirement of some earned surplus similar to retained earnings, (4) the requirement of current earnings instead of a capital surplus (5) the requirement of a minimum ratio of certain assets to current liabilities. Approximately one-half of the states base their statutes on the Model Business Corporation Act which prohibits dividends that would reduce the value of assets below that of liabilities plus amounts required for liquidation preferences.[18] To understand whether statute-based-dividend restrictions play a role in the relation between AT and payout policy, we conduct additional tests that exclude observations with a negative stockholders' equity and separate tests that exclude observations with a stockholders' equity smaller than 10% of total assets. In both analyses, we get results similar to those reported in the paper: Payout sensitivity is not significantly associated with asymmetric timeliness of earnings or accruals, but is significantly and positively associated with asymmetric timeliness of cash flows. These results suggest that binding-state-statutory requirements are not the sole driver of our findings.

Equity-based acquisitions can be associated with an increase in the acquirer's asset variance and thus a decrease in its value of debt. As discussed in section 3.1, it is possible that the acquirer can first repurchase stock for cash and then exchange the

[17] Interestingly, unrealized gains on fixed assets are generally excluded from the computation of this surplus.

[18] A detailed enumeration of these restrictions can be found in Peterson and Hawkins (1997/1998).

repurchased stock for the stock of target shareholders. Our measure of net payout captures the repurchase side of the transaction, but excludes the equity-based investment (i.e., the exchange of acquirer equity for target equity). In this sensitivity test, we rerun our tests by excluding observations with equity-based acquisitions in the current and the subsequent year. We choose to exclude these observations instead of reducing the net payout measure by the market value of the acquisition because this alternative method treats net assets acquired on an equivalent basis to cash, which is not reasonable if most of the net assets acquired are goodwill or are more risky than cash. This alternative method would understate net payout from the point of view of bondholders. We choose to exclude observations with equity-based acquisitions in the subsequent year as well to control for the possibility that a firm may repurchase stock in the current year and use the stock to acquire a company in the subsequent year. After removing such observations, the positive coefficient on NEGRET*RET*AT_EARN in Table 4 Panel A becomes significant, but the coefficient on NEGRET*RET*AT_ACC or NEGRET*RET*AT_ACCOI remains insignificant and the coefficient on NEGRET*RET*AT_OCF or NEGRET*RET*AT_CF is still significantly positive.

To address the possibility that the association between asymmetric timeliness of earnings or its components and shareholder distributions vary across industries, we re-estimate the regressions using industry-adjusted asymmetric timeliness (AT) or conservatism (COSNV) measures. For each AT or CONSV measure, an industry average is computed for firms with the same industry classification according to Fama and French (1997) in each year and subtracted from the AT or CONSV measure of each firm. Our primary conclusions do not change: The asymmetric sensitivity of shareholder

distributions is significantly and positively associated with asymmetric timeliness of cash flows, but is not associated with the asymmetric timeliness of earnings or accruals.

IV. Conclusion

Theory suggests that asymmetric timeliness of earnings reduces agency costs by restricting distributions of the firm's net assets to shareholders when such distributions transfer wealth from bondholders to stockholders. We examine the validity of this conjecture by studying the association between asymmetric timeliness of earnings and shareholder distributions.

Because limited shareholder liability hinders retrieval of payments made to shareholders and because bondholder payouts are capped, bondholders prefer asymmetric sensitivity of shareholder payouts to anticipated gains and losses. That is, they want distributions to shareholders to be reduced in light of anticipated losses, but to be increased only upon realization of gains. We find that asymmetric timeliness of earnings is positively related to asymmetric sensitivity of net payout to shareholders but that this relation is not significant—casting doubt on the importance of earnings asymmetric timeliness in limiting wealth transfers from bondholders to stockholders via distributions from unrealized gains.

We decompose the earnings asymmetric timeliness into cash flow and accrual asymmetric timeliness to understand how each is related to asymmetric sensitivity of shareholder distributions. Holding investment constant, operating cash flows directly confine payments to shareholders, while accruals can constrain payouts via contracts and other devices that limit distributions based on shareholders' equity. We find that

asymmetric timeliness of operating cash flows is significantly and positively related to asymmetric sensitivity of shareholder payouts, while asymmetric timeliness of accruals is not. These results suggest that accounting policies with regard to accruals (e.g., depreciation method choices) do not have a significant influence on the asymmetric sensitivity of shareholder distributions.

V. References

Ahmed, A., Billings, B., Morton, R., and Stanford-Harris, M., 2002, The role of accounting conservatism in mitigating bondholder-shareholder conflicts over dividend policy and in reducing debt costs, The Accounting Review 77, 867-890.

Allen, F., and Michaely, R., 2003, Payout policy, in: Constantinides, G., Harris, M., and Stutz, R., (Eds.), North-Holland Handbooks of Economics, Elsevier Science, Amsterdam.

Ball, R., Kothari, S.P., and Robin, A., 2000, The effect of international institutional factors on properties of accounting earnings, Journal of Accounting and Economics 29, 1-51.

Basu, S., 1997, The conservatism principle and the asymmetric timeliness of earnings, Journal of Accounting and Economics 24, 3-37.

Beatty, A., 1995, The cash flow and informational effects of employee stock options plans, Journal of Financial Economics 38, 211-240.

Begley, J., and Feltham, G., 1999, An empirical examination of the relation between debt contracts and management incentives, Journal of Accounting and Economics 27, 229-259.

Brav, A., Graham, J., Harvey, C., and Michaely, R., 2005, Payout policy in the 21st century, Journal of Financial Economics 77(3), 483-527.

Bernartzi, S., Michaely, R., and Thaler, R., 1997, Do changes in dividends signal the future or the past? Journal of Finance 52, 1007-1043.

Cox, J., and Hazen, T. L., 2003, Cox & Hazen on Corporations, Second Edition, Aspen Publishers, New York.

DeAngelo, H., and DeAngelo, L., 1990, Dividend policy and financial distress: an empirical investigation of troubled NYSE firms, Journal of Finance 45, 1415-1431.

DeAngelo, H., DeAngelo, L., and Skinner, D., 1992, Dividends and losses, Journal of Finance 47, 1837-1863.

DeAngelo, H., DeAngelo, L., and Stulz, R., 2004, Dividend policy, agency costs, and earned equity, Working paper University of Southern California and Ohio State University.

Defond, M., and Jiambalvo, J., 1994, Debt covenant violation and manipulation of accruals, Journal of Accounting and Economics 17, 145-176.

Dichev, I., and Skinner, D., 2002, Large-sample evidence on the debt covenant hypothesis, Journal of Accounting Research 40, 1091-1123.

Easterbrook, F., 1984, Two agency-cost explanations of dividends, American Economic Review 74, 650-659.

Fama, E., 1978, The effects of a firm's investment and financing decisions on the welfare of its security holders, American Economic Review 68, 272-284.

Fama, E., and French, K., 1997, Industry costs of equity, Journal of Financial Economics 43, 153-193.

Fama, E., and Kenneth, R., 2001, Disappearing dividends: Changing firm characteristics or lower propensity to pay? Journal of Financial Economics 60, 3-43.

Frankel, R., and Roychowdhury, S., 2007, Asymmetric timeliness and the persistence of special items, Working paper, MIT Sloan School.

Galai, D., and Masulis, R., 1976, The option pricing model and the risk factor of stock, Journal of Financial Economics 3, 53-81.

Givoly, D., and Hayn, C., 2000, The changing time-series properties of earnings, cash flows and accruals: has financial reporting become more conservative? Journal of Accounting and Economics 29, 287–320.

Grossman, S., and Hart, O., 1980, Takeover bids, the free-rider problem, and the theory of corporations, Bell Journal of Economics 11, 42-54.

Grullon, G., and Michaely, R., 2002, Dividends, share repurchases, and the substitution hypothesis, Journal of Finance 57, 1649-1684.

Healy, P., and Palepu, K., 1988, Earnings information conveyed by dividend initiations and omissions, Journal of Financial Economics 21, 149-176.

Jensen, M., and Meckling, W., 1976, Theory of the firm: managerial behavior, agency costs, and ownership structure, Journal of Financial Economics 3, 305-360.

Khan, M., and Watts, R., 2007, Estimation and validation of a firm-year measure of conservatism, Working paper, MIT Sloan School.

Kalay, A., 1982, Stockholder-bondholder conflict and dividend constraints, Journal of Financial Economics 10, 211-233.

Lambert, R., Lanen, W., and Larcker, D., 1989, Executive stock option plans and corporate dividend policy, Journal of Financial and Quantitative Analysis 24, 409-425.

Leftwich, R., 1983, Accounting information in private markets: Evidence from private lending agreements, The Accounting Review 58, 23-42.

Lintner, J., 1956, Distribution of incomes of corporations among dividends, retained earnings, and taxes, American Economic Review 46, 97-113.

Myers, S., 1977, Determinants of corporate borrowing, Journal of Financial Economics 5, 147-175.

Peterson, C., and Hawkins, H., 1997/1998, Does corporate law matter? Legal capital restrictions on stock distributions, Akron Law Review 31, 175-221.

Skinner, D., 2004, What do dividends tell us about earnings quality? Working paper, University of Chicago.

Skinner, D., 2007, The evolving relation between earnings, dividends, and stock repurchases, Journal of Financial Economics, forthcoming.

Sloan, R., 1996, Do stock prices fully reflect information in accruals and cash flows about future earnings? Accounting Review 71, 289-315.

Smith, C., and Warner, J., 1979, On financial contracting: an analysis of bond covenants, Journal of Financial Economics 7, 117-161.

Sweeney, A., 1994, Debt covenant violations and managers' accounting responses, Journal of Accounting and Economics 17, 281-308.

Watts, R., 2003, Conservatism in accounting part I: explanations and implications, Accounting Horizons 17, 207-221.

Watts, R., and Zimmerman, J., 1986, Positive Accounting Theory, Prentice-Hall Englewood Cliffs, New Jersey.

Zhang, J., 2008, The contracting benefits of accounting conservatism to lenders and borrowers, Journal of Accounting and Economics 45, 27-54.

Table 1 : Variable definitions

Dependent variables

NetPayout	is net payout (dividend + share repurchases - equity issuances) to common shareholders for firm i in year t divided by market value of common stock (Compustat #25*Compustat #199) at the beginning of year t, where net payout is defined as Compustat #127 + Compustat #115 - Compustat #108 - Compustat #19 + Compustat #56 - Compustat #56lag1.

Primary independent variable (Variable of interest)

AT_XXX	is asymmetric timeliness of earnings or its accrual or cash flow component, estimated using Basu (1997) regression for firm i over a ten-year window from year t-9 to year t. XXX is EARN, OCF, ACC, CF or ACCOI. EARN is earnings before extraordinary items (Compustat #123); OCF is operating cash flows (Compustat #308); ACC accruals (Compustat #123 - Compustat #308); CF is sum of operating cash flows and investing cash flows (Compustat #308 + Compustat #311); and ACCOI is accruals (Compustat #123 - Compustat #308 - Compustat #311).
AT_XXX(R^2)	is asymmetric timeliness of earnings or its accrual or cash flow component defined as R^2_{bad}/R^2_{good}, where R^2_{bad} (R^2_{good}) is the r-square from Basu(1997) regression (excluding terms containing NEGRET) using negative (positive) return years for firm i during a ten-year window from year t-9 to year t. XXX is EARN, OCF, ACC, CF or ACCOI.
CONSV_skew	is the ratio of skewness of earnings before extraordinary items (Compustat #123) to skewness of operating cash flows (Compustat #308) for firm i over a ten-year window from year t-9 to year t, multiplies by -1.
CONSV_accrual	is the ratio of accumulated nonoperating accruals to accumulated total assets (Compustat #6) for firm i over a ten-year window from year t-9 to year t, multiplied by -1. Following Zhang (2008), nonoperating accruals are operating accruals - Δaccounts receivable (Compustat #2) - Δinventories (Compustat #3) - Δprepaid expenses (Compustat #160) + Δaccounts payable (Compustat #70) + Δtaxes payable (Compustat #71), where operating accruals are net income (Compustat #172) + depreciation (Compustat #14) - cash flow from operations (Compustat #308).

Other variables

RET	is firms i's stock returns during year t, defined as the buy-and-hold returns over the 12 months ending 3 months after the end of year t. Monthly stock returns are obtained from CRSP,

NEGRET	is a dummy variable that takes a value of one if RET is negative for firm i in year t, and zero otherwise,
LogMVE	is the natural log of market value of common equity (Compustat #25*Compustat #199) for firm i at the end of year t,
MB	is market to book ratio of equity for firm i at the end of year t (Compustat #25*Compustat #199/Compustat #6),
Leverage	is the leverage of firm i at the end of year t, defined as the sum of long-term debt (Compustat #9) and short-term debt (Compustat #34) divided by total assets (Compustat #6).

Table 2: Descriptive statistics
Panel A: Summary statistics

This table presents summary statistics for our sample over 1997-2005. Variables are defined in Table 1. Continuous variables are winsorized at 1% and 99%. * indicates significance at the 5% level.

	Mean	Std.Dev	Q1	Median	Q3	N
Payout Variables						
NetPayout	-0.0169*	0.1181	-0.0096	0	0.0194	35343
AT Variable						
AT_EARN	0.0770*	0.6258	-0.1194	0.0340	0.2313	14142
AT_ACC	0.0580*	0.8850	-0.1967	0.0141	0.2919	13758
AT_OCF	0.0144*	0.7008	-0.2141	0.0153	0.2349	13764
AT_ACCOI	0.0447*	1.4795	-0.3486	0.0296	0.4356	13676
AT_CF	0.0421*	1.2921	-0.3357	0.0054	0.3608	13682
AT_EARN(R^2)	68.6629*	396.8700	0.2731	1.2784	6.1121	12319
AT_ACC(R^2)	84.6340*	509.8700	0.2630	1.2225	5.7582	12017
AT_OCF(R^2)	70.3628*	421.0700	0.2734	1.2120	5.4641	12021
AT_ACCOI(R^2)	83.5380*	480.8300	0.2883	1.3337	6.2401	11944
AT_CF(R^2)	70.9750*	415.8500	0.2705	1.2874	6.1251	11948
CONSV_skew	-0.1786*	7.7402	-1.3144	-0.3264	0.9581	19151
CONSV_accrual	0.0208*	0.0360	0.0020	0.0159	0.0337	16917
Other Variables						
RET	0.1879*	0.8272	-0.3096	0.0267	0.4310	35343
NEGRET	0.4794*	0.4996	0	0	1	35343
LogMVE	5.4207*	2.2066	3.7668	5.3404	6.9035	35210
MB	2.8612*	4.2263	1.0740	1.8998	3.4195	35210
Leverage	0.2216*	0.2128	0.0216	0.1830	0.3502	35210

Panel B: Correlations

This table presents pooled pair-wise Pearson correlations among key variables in our study. Variables are defined in Table 1. Continuous variables are winsorized at 1% and 99%. Sample period is 1997 to 2005. * indicates significance at the 10% level.

	NetPayout	AT_EARN	AT_ACC	AT_OCF	AT_EARN(R^2)	AT_ACC(R^2)	AT_OCF(R^2)	CONSV_skew	CONSV_accrual	RET	LogMVE	MB	Leverage
NetPayout	1												
AT_EARN	-0.0385*	1											
AT_ACC	-0.0267*	0.5474*	1										
AT_OCF	-0.0020	0.1350*	-0.6942*	1									
AT_EARN(R^2)	0.0071	0.0018	-0.0228*	0.0277*	1								
AT_ACC(R^2)	-0.0021	0.0106	-0.0104	0.0212*	0.0306*	1							
AT_OCF(R^2)	-0.0048	0.0071	-0.0171*	0.0302*	0.0316*	0.0470*	1						
CONSV_skew	0.0114	-0.0132	-0.0041	0.0013	0.0112	0.0080	-0.0024	1					
CONSV_accrual	-0.1402*	0.0310*	0.0353*	-0.0233*	0.0116	0.0034	0.0039	0.0139*	1				
RET	-0.1291*	0.0134	0.0110	-0.0012	0.0036	-0.0126	-0.0050	0.0065	0.0108	1			
LogMVE	0.1031*	-0.0606*	-0.0243*	-0.0236*	0.0291*	0.0135	0.0494*	-0.0063	0.0264*	0.1197*	1		
MB	-0.0687*	0.0030	-0.0094	0.0150*	-0.0011	0.0172*	0.0311*	-0.0062	0.1133*	0.1921*	0.2313*	1	
Leverage	0.0254*	0.0239*	0.0340*	-0.0245*	0.0095	-0.0266*	-0.0238*	0.0216*	0.0486*	-0.0700*	0.0066	-0.1067*	1

Table 3: Asymmetric timeliness of shareholder distributions

This table presents the results from pooled OLS regressions of shareholder distributions (net payout) on stock returns. Variables are defined in Table 1. Continuous variables are winsorized at 1% and 99%. Sample period is 1997 to 2005. Standard errors are adjusted for within-firm correlations. Robust t statistics are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Independent Variables	NetPayout
NEGRET	-0.0012
	(0.523)
RET	-0.0429
	(17.786)***
NEGRET*RET	0.1119
	(22.674)***
Constant	0.0086
	(5.320)***
Observations	35343
R-squared	0.040

Table 4: The association between asymmetric sensitivity of shareholder distributions and asymmetric timeliness of earnings or its components

Panel A: Asymmetric timeliness is defined as α_3 on NEGRET*RET in Basu (1997) regression.

This table presents the results from pooled OLS regressions of shareholder distributions (net payout) on stock returns and asymmetric timeliness of earnings (or accruals and cash flows). Variables are defined in Table 1. Continuous variables are winsorized at 1% and 99%. Percentile ranks of asymmetric timeliness of earnings, cash flows and accruals are used. Sample period is 1997 to 2005. Standard errors are adjusted for within-firm correlations. Robust t statistics are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	AT variables included in the regression					
	AT_EARN		AT_ACC and AT_OCF		AT_ACCOI and AT_CF	
Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)
NEGRET	-0.0029	0.0101	-0.0039	0.0063	-0.0008	0.0098
	(0.588)	(1.205)	(0.352)	(0.483)	(0.056)	(0.632)
RET	-0.0249	-0.0135	-0.0124	-0.0023	-0.0059	0.0050
	(4.429)***	(1.575)	(1.369)	(0.210)	(0.636)	(0.468)
NEGRET*RET	0.0728	0.0740	0.0357	0.0420	0.0416	0.0520
	(5.150)***	(3.130)***	(1.162)	(1.195)	(1.194)	(1.335)
AT_EARN	-0.0080	-0.0058				
	(1.401)	(1.020)				
RET*AT_EARN	-0.0065	-0.0086				
	(0.631)	(0.823)				
NEGRET*AT_EARN	0.0115	0.0098				
	(1.269)	(1.078)				
NEGRET*RET*AT_EARN	0.0321	0.0336				
	(1.261)	(1.308)				
AT_ACC			-0.0036	-0.0019	-0.0062	-0.0032
			(0.481)	(0.247)	(0.650)	(0.325)
RET*AT_ACC			-0.0166	-0.0193	-0.0227	-0.0255
			(1.554)	(1.771)*	(1.971)**	(2.157)**
NEGRET*AT_ACC			0.0003	-0.0013	-0.0033	-0.0047
			(0.022)	(0.107)	(0.210)	(0.301)
NEGRET*RET*AT_ACC			0.0265	0.0267	0.0012	0.0015
			(0.792)	(0.791)	(0.029)	(0.037)
AT_OCF			0.0017	0.0031	0.0038	0.0063
			(0.232)	(0.416)	(0.395)	(0.643)
RET*AT_OCF			-0.0166	-0.0162	-0.0258	-0.0259
			(1.526)	(1.464)	(2.334)**	(2.273)**

(Continued)

Table 4, Panel A: (continued)

NEGRET*AT_OCF			0.0129	0.0122	0.0092	0.0085
			(1.072)	(1.001)	(0.621)	(0.556)
NEGRET*RET*AT_OCF			0.0855	0.0833	0.1037	0.1011
			(2.568)**	(2.490)**	(2.802)***	(2.655)***
Leverage		-0.0194		-0.0200		-0.0203
		(1.873)*		(1.916)*		(1.934)*
RET*Leverage		0.0185		0.0170		0.0157
		(1.091)		(0.980)		(0.901)
NEGRET*Leverage		-0.0059		-0.0011		-0.0004
		(0.406)		(0.073)		(0.029)
NEGRET*RET*Leverage		-0.0849		-0.0722		-0.0721
		(2.335)**		(1.958)*		(1.927)*
MB		0.0002		0.0003		0.0003
		(0.403)		(0.675)		(0.729)
RET*MB		-0.0015		-0.0018		-0.0018
		(3.030)***		(3.391)***		(3.437)***
NEGRET*MB		-0.0011		-0.0010		-0.0011
		(1.196)		(1.068)		(1.164)
NEGRET*RET*MB		0.0066		0.0076		0.0075
		(2.507)**		(2.835)***		(2.725)***
LogMVE		0.0042		0.0036		0.0035
		(6.143)***		(5.278)***		(5.084)***
RET*LogMVE		-0.0012		-0.0007		-0.0007
		(1.009)		(0.544)		(0.566)
NEGRET*LogMVE		-0.0011		-0.0009		-0.0009
		(1.076)		(0.807)		(0.854)
NEGRET*RET*LogMVE		-0.0019		-0.0037		-0.0045
		(0.663)		(1.251)		(1.470)
Constant	0.0215	-0.0028	0.0197	-0.0020	0.0206	-0.0020
	(6.794)***	(0.500)	(2.844)***	(0.243)	(2.231)**	(0.193)
Observations	14142	14097	13758	13713	13676	13631
R-squared	0.034	0.044	0.036	0.046	0.037	0.047

Panel B: Asymmetric timeliness is defined as R^2_{bad}/R^2_{good}, where R^2_{bad} (R^2_{good}) is the R^2 of Basu (1997) regression (excluding terms containing NEGRET) estimated using negative (positive) return years.

This table presents the results from pooled OLS regressions of shareholder distributions (net payout) on stock returns and asymmetric timeliness of earnings (or accruals and cash flows). Variables are defined in Table 1. Continuous variables are winsorized at 1% and 99%. Percentile ranks of asymmetric timeliness of earnings, cash flows and accruals are used. Sample period is 1997 to 2005. Standard errors are adjusted for within-firm correlations. Robust t statistics are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	AT variables included in the regression					
	AT_EARN(R^2)		AT_ACC(R^2) and AT_OCF(R^2)		AT_ACCOI(R^2) and AT_CF(R^2)	
Independent Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
NEGRET	0.0028	0.0136	0.0022	0.0127	0.0004	0.0110
	(0.526)	(1.587)	(0.364)	(1.451)	(0.064)	(1.221)
RET	-0.0206	-0.0113	-0.0235	-0.0138	-0.0244	-0.0136
	(3.862)***	(1.305)	(3.540)***	(1.546)	(3.689)***	(1.405)
NEGRET*RET	0.0740	0.0811	0.0860	0.0933	0.0806	0.0874
	(5.392)***	(3.501)***	(5.849)***	(3.967)***	(5.292)***	(3.577)***
AT_EARN(R^2)	0.0206	0.0190				
	(3.364)***	(3.095)***				
RET*AT_EARN(R^2)	-0.0175	-0.0183				
	(1.625)	(1.685)*				
NEGRET*AT_EARN(R^2)	0.0041	0.0039				
	(0.473)	(0.448)				
NEGRET*RET*AT_EARN(R^2)	0.0354	0.0418				
	(1.479)	(1.716)*				
AT_ACC(R^2)			0.0007	0.0002	0.0027	0.0022
			(0.099)	(0.024)	(0.323)	(0.260)
RET*AT_ACC(R^2)			0.0035	0.0030	0.0176	0.0174
			(0.274)	(0.239)	(1.153)	(1.140)
NEGRET*AT_ACC(R^2)			0.0011	0.0014	0.0081	0.0070
			(0.116)	(0.151)	(0.719)	(0.627)
NEGRET*RET*AT_ACC(R^2)			-0.0286	-0.0183	-0.0287	-0.0254
			(1.108)	(0.724)	(0.976)	(0.865)
AT_OCF(R^2)			0.0120	0.0099	0.0158	0.0147
			(1.695)*	(1.409)	(2.041)**	(1.922)*
RET*AT_OCF(R^2)			-0.0122	-0.0104	-0.0227	-0.0236
			(0.998)	(0.848)	(1.726)*	(1.789)*

(Continued)

Table 4, Panel B: (continued)

NEGRET*AT_OCF(R^2)			0.0045	0.0042	0.0027	0.0030
			(0.468)	(0.433)	(0.246)	(0.284)
NEGRET*RET*AT_OCF(R^2)			0.0366	0.0300	0.0471	0.0524
			(1.451)	(1.165)	(1.553)	(1.717)*
Leverage		-0.0239		-0.0239		-0.0237
		(2.065)**		(2.028)**		(2.006)**
RET*Leverage		0.0224		0.0186		0.0194
		(1.226)		(1.003)		(1.024)
NEGRET*Leverage		-0.0002		-0.0004		0.0005
		(0.016)		(0.025)		(0.031)
NEGRET*RET*Leverage		-0.0969		-0.0916		-0.0925
		(2.707)***		(2.513)**		(2.508)**
MB		-0.0001		0.0000		0.0000
		(0.183)		(0.032)		(0.012)
RET*MB		-0.0016		-0.0018		-0.0018
		(3.100)***		(3.274)***		(3.281)***
NEGRET*MB		-0.0004		-0.0005		-0.0002
		(0.396)		(0.452)		(0.197)
NEGRET*RET*MB		0.0085		0.0091		0.0099
		(2.967)***		(3.123)***		(3.334)***
LogMVE		0.0038		0.0036		0.0035
		(5.016)***		(4.620)***		(4.494)***
RET*LogMVE		-0.0010		-0.0010		-0.0010
		(0.756)		(0.685)		(0.736)
NEGRET*LogMVE		-0.0015		-0.0014		-0.0015
		(1.275)		(1.170)		(1.250)
NEGRET*RET*LogMVE		-0.0035		-0.0037		-0.0043
		(1.081)		(1.124)		(1.268)
Constant	0.0056	-0.0122	0.0099	-0.0067	0.0065	-0.0100
	(1.501)	(2.030)**	(2.219)**	(1.085)	(1.526)	(1.622)
Observations	12319	12277	12017	11975	11944	11902
R-squared	0.037	0.046	0.035	0.045	0.038	0.047

Panel C: Asymmetric timeliness is defined as relative skewness of earnings (CONSV_skew) or accumulated nonoperating accruals (CONSV_accrual).

This table presents the results from pooled OLS regressions of shareholder distributions (net payout) on stock returns and asymmetric timeliness of earnings (or accruals and cash flows). Variables are defined in Table 1. Continuous variables are winsorized at 1% and 99%. Percentile ranks of conservatism measures are used. Sample period is 1997 to 2005. Standard errors are adjusted for within-firm correlations. Robust t statistics are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	AT variables included in the regression			
	CONSV_skew		CONSV_accrual	
Independent Variables	**(1)**	**(2)**	**(3)**	**(4)**
NEGRET	0.0022	0.0115	0.0021	0.0049
	(0.510)	(1.469)	(0.484)	(0.684)
RET	-0.0326	-0.0245	-0.0268	-0.0249
	(6.174)***	(3.088)***	(5.100)***	(3.124)***
NEGRET*RET	0.1058	0.1083	0.0960	0.0974
	(9.139)***	(5.215)***	(7.938)***	(4.963)***
CONSV_skew	-0.0009	0.0017		
	(0.175)	(0.326)		
RET* CONSV_skew	0.0097	0.0076		
	(0.985)	(0.777)		
NEGRET* CONSV_skew	0.0046	0.0037		
	(0.610)	(0.494)		
NEGRET*RET* CONSV_skew	-0.0115	-0.0023		
	(0.576)	(0.116)		
CONSV_accrual			-0.0337	-0.0361
			(5.790)***	(6.170)***
RET* CONSV_accrual			-0.0032	-0.0031
			(0.331)	(0.313)
NEGRET* CONSV_accrual			0.0013	0.0017
			(0.169)	(0.205)
NEGRET*RET* CONSV_accrual			-0.0086	-0.0136
			(0.401)	(0.634)
Leverage		-0.0189		-0.0197
		(2.126)**		(2.050)**
RET*Leverage		0.0146		0.0172
		(1.079)		(1.135)
NEGRET*Leverage		-0.0006		0.0073
		(0.046)		(0.545)
NEGRET*RET*Leverage		-0.0798		-0.0525
		(2.615)***		(1.616)

(Continued)

Table 4, Panel C: (continued)

MB		0.0006		0.0006
		(1.732)*		(1.593)
RET*MB		-0.0018		-0.0015
		(4.141)***		(3.174)***
NEGRET*MB		-0.0008		-0.0001
		(0.968)		(0.081)
NEGRET*RET*MB		0.0112		0.0106
		(4.084)***		(3.815)***
LogMVE		0.0037		0.0037
		(5.696)***		(5.362)***
RET*LogMVE		-0.0001		0.0006
		(0.046)		(0.411)
NEGRET*LogMVE		-0.0007		-0.0003
		(0.732)		(0.329)
NEGRET*RET*LogMVE		-0.0055		-0.0050
		(1.745)*		(1.559)
Constant	0.0155	-0.0083	0.0329	0.0117
	(5.397)***	(1.592)	(10.541)***	(2.236)**
Observations	19151	19093	16917	16869
R-squared	0.037	0.048	0.046	0.058

Panel D: Asymmetric timeliness is defined as α_3 on NEGRET*RET in Basu (1997) regression estimated over 15 years

This table presents the results from pooled OLS regressions of shareholder distributions (net payout) on stock returns and asymmetric timeliness of earnings (or accruals and cash flows). Variables are defined in Table 1. Continuous variables are winsorized at 1% and 99%. Asymmetric timeliness is defined as α_3 on NEGRET*RET in Basu (1997) regression estimated for each firm over 15 years (year t-14 to year t). Percentile ranks of asymmetric timeliness of earnings, cash flows and accruals are used. Sample period is 2002 to 2005. Standard errors are adjusted for within-firm correlations. Robust t statistics are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	AT variables included in the regression					
	AT_EARN		**AT_ACC and AT_OCF**		**AT_ACCOI and AT_CF**	
Independent Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
NEGRET	-0.0015	-0.0111	-0.0212	-0.0257	0.0249	0.0174
	(0.144)	(0.638)	(1.065)	(1.103)	(0.886)	(0.608)
RET	-0.0353	-0.0404	-0.0286	-0.0310	-0.0056	-0.0061
	(2.613)***	(1.868)*	(1.154)	(1.193)	(0.247)	(0.279)
NEGRET*RET	0.1005	0.0895	-0.0506	-0.0488	0.0816	0.0814
	(2.467)**	(1.461)	(0.685)	(0.589)	(1.060)	(1.116)
AT_EARN	-0.015	-0.0121				
	(1.381)	(1.130)				
RET*AT_EARN	-0.0042	-0.0057				
	(0.180)	(0.250)				
NEGRET*AT_EARN	-0.0055	-0.0068				
	(0.273)	(0.343)				
NEGRET*RET*AT_EARN	0.0115	0.0133				
	(0.157)	(0.187)				
AT_ACC			-0.0089	-0.0043	-0.0262	-0.019
			(0.570)	(0.270)	(1.396)	(1.001)
RET*AT_ACC			-0.0257	-0.0303	-0.0327	-0.0385
			(1.066)	(1.228)	(1.272)	(1.513)
NEGRET*AT_ACC			-0.0033	-0.0087	-0.0521	-0.0585
			(0.146)	(0.381)	(1.678)*	(1.872)*
NEGRET*RET*AT_ACC			0.1351	0.1340	-0.0618	-0.0713
			(1.624)	(1.614)	(0.716)	(0.840)
AT_OCF			-0.0172	-0.0140	-0.0220	-0.0147
			(1.006)	(0.810)	(1.207)	(0.798)
RET*AT_OCF			0.0120	0.0113	-0.0331	-0.0378
			(0.403)	(0.371)	(1.231)	(1.390)

(Continued)

Table 4, Panel D: (continued)

NEGRET*AT_OCF			0.0367	0.0298	-0.0118	-0.0167
			(1.639)	(1.312)	(0.398)	(0.556)
NEGRET*RET*AT_OCF			0.1624	0.1422	0.0931	0.0788
			(1.952)*	(1.677)*	(1.113)	(0.944)
Leverage		-0.0249		-0.0254		-0.0252
		(1.183)		(1.168)		(1.159)
RET*Leverage		0.0258		0.0267		0.0234
		(0.745)		(0.742)		(0.674)
NEGRET*Leverage		-0.0186		-0.0079		-0.0085
		(0.601)		(0.259)		(0.271)
NEGRET*RET*Leverage		-0.1599		-0.1260		-0.1210
		(1.921)*		(1.596)		(1.497)
MB		0.0012		0.0012		0.0014
		(1.840)*		(1.751)*		(1.972)**
RET*MB		-0.0023		-0.0025		-0.0027
		(1.846)*		(1.955)*		(2.165)**
NEGRET*MB		0.0000		0.0003		0.0005
		(0.013)		(0.157)		(0.261)
NEGRET*RET*MB		0.0159		0.0162		0.0189
		(2.319)**		(2.319)**		(2.704)***
LogMVE		0.0027		0.0028		0.0025
		(2.205)**		(2.183)**		(1.921)*
RET*LogMVE		0.0020		0.0019		0.0022
		(0.733)		(0.685)		(0.793)
NEGRET*LogMVE		0.0026		0.0022		0.0025
		(1.251)		(1.024)		(1.131)
NEGRET*RET*LogMVE		-0.0011		-0.0029		-0.0033
		(0.224)		(0.621)		(0.665)
Constant	0.0304	0.0100	0.0353	0.0124	0.0473	0.0225
	(5.138)***	(0.977)	(2.298)**	(0.716)	(2.677)***	(1.138)
Observations	4364	4347	4197	4182	4175	4160
R-squared	0.050	0.064	0.051	0.065	0.053	0.067

Table 5: The association between asymmetric sensitivity of shareholder distributions and asymmetric timeliness of earnings components for subsamples with pronounced shareholder-debtholder conflicts

This table presents the results from pooled OLS regressions of shareholder distributions (net payout) on stock returns and asymmetric timeliness of earnings (or accruals and cash flows) for three subsamples with pronounced shareholder-debtholder conflicts. Variables are defined in Table 1. Continuous variables are winsorized at 1% and 99%. Asymmetric timeliness is defined as α_3 on NEGRET*RET in Basu (1997) regression estimated for each firm over 10 years (year t-9 to year t). Percentile ranks of asymmetric timeliness of cash flows and accruals are used. Sample period is 1997 to 2005. Standard errors are adjusted for within-firm correlations. Robust t statistics are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Subsample used in the estimation					
	High leverage		**Debt rating below investment grade**		**High standard deviation of ROA (STDROA)**	
Independent Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
NEGRET	0.0127	0.0204	-0.0297	-0.0006	-0.0182	0.0082
	(0.873)	(1.016)	(1.053)	(0.013)	(0.953)	(0.333)
RET	0.0089	0.0347	-0.0129	-0.0217	-0.0174	-0.0018
	(0.717)	(1.842)*	(0.832)	(0.670)	(1.329)	(0.098)
NEGRET*RET	0.0178	-0.013	0.023	0.0614	0.0237	0.0337
	(0.506)	(0.277)	(0.309)	(0.501)	(0.509)	(0.596)
AT_ACC	-0.0028	-0.0014	-0.0719	-0.0705	-0.0022	0.0010
	(0.272)	(0.139)	(3.405)***	(3.346)***	(0.165)	(0.069)
RET*AT_ACC	-0.0321	-0.0317	0.0216	0.0187	-0.0212	-0.0242
	(2.086)**	(2.100)**	(1.072)	(0.980)	(1.329)	(1.463)
NEGRET*AT_ACC	-0.0159	-0.0174	0.0331	0.0409	-0.0106	-0.0137
	(0.955)	(1.054)	(0.960)	(1.153)	(0.475)	(0.614)
NEGRET*RET*AT_ACC	0.0201	0.0147	-0.0372	-0.0122	-0.0078	-0.007
	(0.528)	(0.388)	(0.476)	(0.149)	(0.154)	(0.137)
AT_OCF	0.0072	0.0090	-0.0458	-0.0473	-0.0073	-0.0057
	(0.750)	(0.922)	(2.548)**	(2.519)**	(0.483)	(0.368)
RET*AT_OCF	-0.0304	-0.0309	-0.0074	-0.0061	0.0011	0.0009
	(2.092)**	(2.141)**	(0.457)	(0.351)	(0.059)	(0.048)
NEGRET*AT_OCF	-0.0054	-0.0058	0.0308	0.0334	0.0537	0.0528
	(0.339)	(0.366)	(1.083)	(1.147)	(2.365)**	(2.312)**
NEGRET*RET*AT_OCF	0.0924	0.0942	0.0039	0.0044	0.1056	0.1069
	(2.213)**	(2.278)**	(0.048)	(0.053)	(2.064)**	(2.063)**
Leverage		-0.0071		-0.0179		-0.045
		(0.405)		(0.685)		(1.810)*
RET*Leverage		-0.0437		0.0186		0.0238
		(1.706)*		(0.641)		(0.762)

(Continued)

Table 5: (continued)

NEGRET*Leverage		-0.0117		-0.0384		0.0095
		(0.407)		(0.889)		(0.290)
NEGRET*RET*Leverage		0.0262		-0.0912		-0.0847
		(0.393)		(0.964)		(1.369)
MB		0.0006		0.0000		-0.0007
		(1.493)		(0.020)		(0.993)
RET*MB		-0.0008		-0.0003		-0.0005
		(1.375)		(0.350)		(0.638)
NEGRET*MB		0.0002		-0.0039		-0.0002
		(0.237)		(1.158)		(0.157)
NEGRET*RET*MB		0.0050		-0.0049		0.0017
		(1.473)		(0.433)		(0.522)
LogMVE		0.0040		-0.0016		0.0061
		(4.131)***		(0.608)		(3.661)***
RET*LogMVE		-0.0008		0.0005		-0.0028
		(0.363)		(0.140)		(1.108)
NEGRET*LogMVE		-0.0004		-0.0019		-0.0048
		(0.272)		(0.357)		(1.944)*
NEGRET*RET*LogMVE		-0.0013		-0.0003		-0.0017
		(0.322)		(0.027)		(0.318)
Constant	0.0144	-0.0137	0.0494	0.0666	-0.0020	-0.0281
	(1.598)	(1.119)	(2.976)***	(2.182)**	(0.171)	(1.795)*
Observations	7346	7345	1581	1581	4785	4761
R-squared	0.024	0.039	0.018	0.023	0.028	0.035