Understanding discretion in conservatism: An alternative viewpoint ☆

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ARTICLE INFO

ABSTRACT

Various studies have investigated variation in reporting conservatism with pre-specified contractual incentives. Lawrence et al. (forthcoming), hereafter LSS, propose a model to control for "normal" or "non-discretionary" conservatism while testing for variation in conservatism with contractual forces, which they characterize as "discretionary" variation. Our objective is to further the discussion on discretion in conservatism by relying on LSS and incorporating insights from related studies to shed light on the rationales and relative importance of various controls for normal conservatism suggested by LSS. Furthermore, our perspective on discretion in conservatism is distinct from the one developed by LSS in some crucial respects, ultimately leading us to question the nature of the boundary between discretionary and non-discretionary conservatism.

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1. Introduction

An aspect of accounting choice that has received considerable attention in recent times is how conservatively a firm represents economic events on its financial statements. Various studies have investigated variation in reporting conservatism with pre-specified incentives, many and indeed most of which tend to be contractual in nature (for example, do explicit and/or implicit contracts with debt-holders and shareholders lead to greater conservatism in reporting?) This burgeoning academic literature on conservatism has, however, generally not explicitly discussed questions that arise in the context of the significant variation in conservatism that they document. First, should researchers expect firms to exhibit some normal level of conservatism? Second, if so, how does one estimate normal conservatism? Third, how much discretion do managers enjoy within the realm of Generally Accepted Accounting Principles (GAAP), and how does this influence normal conservatism? Fourth, does observed variation in conservatism reflect the norm or departure from the norm? Lawrence et al. (forthcoming), hereafter LSS, explicitly raise these questions and undertake empirical analyses in an attempt to answer them. Our objective is to further the discussion on discretion in conservatism by relying on the building blocks

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provided in LSS and also incorporating insights from other studies that have examined variation in conservatism and discretion in accounting choice.

GAAP provides standards for financial reporting that are considered binding and are enforceable; managers of firms reporting in contravention of GAAP can face substantial penalties and erosion of their human capital. Nevertheless, even within the largely rules-based approach towards financial standards inherent in U.S. GAAP, managers often enjoy substantial discretion in accounting choice.[1] On the one hand, the discretion is deemed necessary by standard-setters and regulators because it allows managers to decide upon the best financial-statements-representation of economic events affecting the firm; arguably managers are in the best position to assess these events and their impact. On the other hand, managers can conceivably exploit the discretion granted in GAAP to report in line with their own private incentives, which may not always align with the incentives of various stakeholders of the firm.

Managers' attempts to represent economic events accurately to the extent possible should lead to the development of some common elements, or norms, in the accounting choices of firms facing similar economic environments. Academics have attempted to identify such norms by developing models for predicting accruals based on revenues, assets, etc. (beginning with Jones, 1991) that are often estimated by industry. The predicted values from these models are generally referred to as normal or non-discretionary accruals, while the deviations are termed discretionary accruals. The attempt in LSS to model non-discretionary conservatism empirically is consistent with that approach.

Our viewpoints differ subtly from those of LSS, but those differences in totality amount to a perspective on discretion in conservatism that is very distinct from theirs in some crucial respects. We begin with a discussion of the sources of discretion in conservative accounting choices, as manifested primarily in the recognition of impairments in the values of recorded assets. Empirical patterns in the data generally point to managers enjoying substantial discretion in determining the timing and magnitude of asset write-downs.

Our discussion provides clues towards identifying the manner in which managers exercise their discretion. External parties, including academic researchers, do not observe the fair value estimates and estimation procedures that underlie managers' write-down decisions; this makes it difficult to assess whether the specific choices made by managers are accurate reflections of economic events, or driven by managerial opportunism. Researchers and other external stakeholders of firms such as auditors, investors and financial analysts, often address this issue by using market values at the firm level as a benchmark to assess whether book values are overstated, and write-downs are warranted. One approach is to measure the covariance between earnings and returns and allow that covariance to vary with the sign of returns; this approach underpins the Basu asymmetric timeliness measure. The ratio of market value of equity to book value of equity, or the book-to-market ratio, provides another alternative. When market value of equity is only slightly below book value of equity, particularly over a short horizon, it is possible that there is no immediate need to record write-downs that exceed the materiality thresholds for external reporting (see Heitzman et al., 2010). On the other hand, when market values remain depressed below book values over extended lengths of time, it is more likely that managers are exercising their discretion to avoid recording write-downs in an attempt to avoid their deleterious effects on earnings. Of particular interest in these cases is the role of auditors and other governance mechanisms that are supposed to constrain managers from reporting opportunistically.

LSS do not necessarily distinguish between discretionary reporting that reflects the economic environment (inclusive of contractual factors) and opportunistic reporting. Instead they propose a general model that controls for variation in non-discretionary or "normal" conservatism with the goal of identifying discretionary conservatism more accurately. Existing literature, particularly studies that rely on the Basu asymmetric timeliness of earnings to measure conservatism, already implicitly impose controls for normal conservatism; but the modifications proposed in LSS can certainly be viewed as attempts to minimize measurement and specification errors in existing models. Our interpretation of the evidence strongly suggests that of all the modifications proposed by LSS, the beginning-of-period BTM is most supported by economic intuition and also the only one that seems to significantly influence the empirical results. Note that BTM is also well-discussed in existing literature, with studies such as Roychowdhury and Watts (2007) already pointing to the necessity of controlling for it while examining variation in conservatism.

LSS view BTM, along with their other proposed refinements, as controlling for normal conservatism, while viewing variation in conservatism with contractual imperatives such as those arising from debt-holder and shareholder demands as manifestations of discretionary conservatism. We suggest important caveats with respect to this interpretation. An alternative interpretation of significant variation in conservatism after controlling for BTM is that the normal level of conservatism itself varies with underlying contractual forces. In other words, rather than motivating discretionary conservatism, contractual factors determine how the discretion granted in GAAP is "normally" exercised conditional on the economic environment. Moreover, if researchers are unable to detect a significant relation between hypothesized contractual factors (for example, the debt-related factors investigated in LSS) and conservatism after controlling for BTM, it would be hazardous to conclude that such contractual factors do not generate a demand for conservatism beyond what is required by GAAP. After all, contractual forces, for example those related to debt contracting, are very likely to have shaped the very evolution of conservatism in GAAP (see Watts and Zimmerman 1986; Watts, 2003).

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[1] Accrual accounting routinely requires managers to make estimates (bad debts, obsolete inventory, pension liabilities, etc.), which by their very nature require managerial discretion.

The rest of the paper is organized as follows. We begin by articulating the sources of discretion, as well as the factors that limit discretion, in the context of conservative accounting choices (Section 2). We then discuss the rationale underlying the measurement of conservatism, and refinements to better capture normal conservatism (Sections 3 and 4). Section 5 discusses the efficacy of these refinements and Section 6 offers some caveats to the general practice of imposing controls for normal conservatism. The key insights that emerge from the discussion and analysis in the rest of this article are discussed in detail in the Conclusion (Section 7).

2. What is the source of non-discretionary and discretionary conservatism?

The Merriam-Webster Dictionary defines discretion as "the right to choose what should be done in a particular situation" and clarifies it as "the power of free decision or latitude of choice within certain legal bounds". Thus discretion has two primary facets. The first involves freedom of choice and decision. The second involves exercise of choice within rights or legal boundaries.

To understand discretion in the context of conservatism, it is instructive to consider what conservative accounting principles involve. Conservatism is generally thought to be the imposition of stricter verification standards to recognize good news as gains than to recognize bad news as losses (Basu, 1997; Watts, 2003). The classic example of conservative accounting principles is the GAAP requirement that book values of recorded assets be written down when their fair values are deemed to be impaired, but not written up when their fair values rise (excluding listed financial securities). Write-downs are required for multiple classes of assets including fixed assets such as property, plant and equipment, identifiable intangibles, goodwill, and short-term assets such as inventories and receivables.

Managers arrive at fair values of assets internally, based on their private information about asset productivity and future profitability. While GAAP provides guidelines for recording write-downs and impairments, these guidelines necessarily depend on managers' subjective assessments of asset fair values, particularly when the assets are unlisted and specific in nature. In this sense, GAAP grants managers considerable discretion; managers have the right to exercise their judgment in arriving at asset fair values and select the appropriate write-down action accordingly. The specific sources of discretion are manifold. Managers have discretion with respect to the timing of asset write-downs. They can write down asset values upon receiving early signals that these values are impaired, or alternatively wait to confirm that these impairments are indeed permanent. Conditional on recording asset write-downs, they have discretion with respect to determining the extent of impairment in asset values, that is, the magnitude of write-downs. The timing and magnitude decisions are expected to be linked. Write-downs recorded with a delay, for example when permanent impairments are more likely, are expected to be larger since such impairments are essentially stronger confirmations of negative eventualities.

Discretion granted in GAAP can of course be exploited by managers to report accounting numbers that are in line with their own incentives, but are not necessarily the most appropriate numbers given the economic circumstances. This phenomenon, often referred to as managerial opportunism, underlies a sizeable literature in earnings management and strategic accounting choice. Managerial opportunism need not necessarily benefit only managers; for example, overstating earnings to avoid a debt covenant violation likely benefits both managers and shareholders, at the expense of debt-holders. In the context of conservatism, managerial opportunism can manifest in two broad ways. Managers can delay recording write-downs, with the objective of overstating earnings and deferring the negative impact of these write-downs to future periods. Alternatively, when reporting write-downs managers can overstate the magnitude, with the goal of taking "earnings baths"; that is, they "purge" current and expected future operating expenses as a component of current asset write-downs, to prevent these expenses from influencing future income statements. Hilton and O'Brien (2009) discuss the case of a Canadian company cross-listed in the U.S. in which managers appear to have exploited fair-value-based asset impairment rules to delay recording write-downs for at least three years, and possibly up to five years. Riedl (2004) presents more general evidence indicating that the fair-value-based asset impairment rules introduced via SFAS 121 in 1995 were associated with a significant increase in managerial opportunism in the magnitude and timing of asset write-downs.

There are limits to the discretion in the implementation of conservative accounting principles, and they arise from the discipline imposed by the institutional structure of the capital markets. For one, auditors have a fiduciary duty to ensure that accounting choices conform to not just the letter but also to the spirit of GAAP. Accordingly they assess the propriety of managers' accounting choices including those pertaining to asset write-downs. Auditors are not the only monitors of accounting choices. Conservatism is thought to increase firm value by facilitating efficient contracting between the firm and its various stakeholders, including debt-holders and shareholders. These various stakeholders to the firm are also interested in whether the accounting choices by the firm's managers are appropriate and prudent, failing which they will tend to price-protect and adjust the value of their claims accordingly. Because of the explicit and implicit monitoring mechanisms in place, firms on average should be reporting asset write-down levels that conform to "the norm" of established practice, given GAAP requirements and the prevailing economic circumstances. A level of reporting conservatism consistent with the norm can be conceivably thought of as "non-discretionary" as in Lawrence et al. (forthcoming), although the more appropriate term is probably "normal" conservatism. Contractual imperatives then are more accurately viewed as determinants of how the "normal" level of conservatism can vary across different types of firms, given that the standards grant firms considerable discretion to adopt the level of conservatism appropriate for their specific context.

3. The measurement of normal/non-discretionary conservatism in research

For any external party, the most difficult barrier to assessing the adequacy of write-downs is in ascertaining changes in fair values of unlisted specific assets. At a firm level approximation, however, the exercise is simpler. The equity value of the firm represents the market's assessment of the fair value of its net assets and is observable. Since write-downs capture a change in the book value of assets, a natural candidate to assess whether reported write-downs are "normal" is to measure their covariance with change in equity values. Using this logic, a model for the normal level of write-downs would be the following:

$$Write-downs_t/Price_{t-1} = \alpha + \beta * RET_t + \varepsilon \tag{1}$$

where RET_t represents the year t stock return.

Allowing for the intuitive possibility that write-owns are motivated more by negative news than positive news, the model for normal write-downs can be expanded as follows:

$$Write-downs_t/Price_{t-1} = \alpha + \beta * RET_t + \eta * D_t + \gamma * D_t * RET_t + \varepsilon \tag{2}$$

where D_t is an indicator variable that captures whether $RET_t < 0$. The combination of explanatory variables in Eq. (2) measures asymmetric timeliness of the dependent variable with respect to negative versus positive returns. The coefficient on $D_t * RET_t$, γ, is expected to be positive if declines (versus increases) in market values are disproportionately associated with declines in book values, as is reasonable to expect.

Note that write-downs are not always easily observable to researchers, nor are they always included as part of one line item; for example, fixed asset write-downs and goodwill impairments are often included in separate lines on the income statement (and reported separately in COMPUSTAT), both may be included as part of restructuring charges, inventory write-downs are often included in cost of goods sold, receivables write-downs may be included in selling and administrative expenses, etc. The measure developed by Basu (1997) provides a composite proxy for how various components of earnings collectively co-vary with returns, in the following regression format:

$$Earnings_t/Price_{t-1} = \alpha + \beta * RET_t + \eta * D_t + \gamma * D_t * RET_t + \varepsilon \tag{3}$$

To the extent that earnings are expected to be timelier in capturing recognizing the effect of negative news on financial statements relative to positive news under conservative accounting principles, the coefficient on $D_t * RET_t$, that is γ, is expected to be positive.

Table 1 reports the results of estimating the asymmetric timeliness regression with various dependent variables. Returns are obtained from CRSP and all other data from COMPUSTAT. Data on asset-write-downs and impairments is available on COMPUSTAT since 2000, prior to which they were generally included as a component of special items. Special items are conditioned on being negative; that is, positive values of special items in COMPUSTAT are set equal to zero while negative values are preserved, to focus on asset write-downs. Asset write-downs include both fixed asset write-downs and goodwill and intangible impairments, consistent with LSS. All continuous variables are winsorized at the 1% and 99% levels of their respective distributions. Columns (1) and (2) in Table 1 report results for the full sample of 134,667 firm years over

Table 1
Regressions measuring asymmetric timeliness

	1974–2009		2000–2009	
	(1)	(2)	(3)	(4)
Dependent variable:	E/P_{t-1}	SPI_t	E/P_{t-1}	WD
Intercept	0.0500***	−0.0133***	0.00389	−0.00644***
	(5.45)	(−10.83)	(0.32)	(−4.67)
D_t	−0.00732	0.00280**	0.0101	0.00235
	(−1.10)	(2.14)	(0.90)	(1.36)
RET_t	−0.00135	−0.00241***	−0.00375	−0.000854**
	(−0.32)	(−3.11)	(−1.13)	(−2.49)
$D_t * RET_t$	0.343***	0.0638***	0.286***	0.0259***
	(13.99)	(12.50)	(7.71)	(3.66)
Adj R^2	0.0914	0.0065	0.0573	0.0246
N	134,667	134,667	40,052	40,052

This table presents the results of accounting conservatism measured by the relation between earnings and return per Basu (1997), and the relation between the two earnings components (asset write-downs and special items) and return. E/P_{t-1} is firm i's earnings per share excluding extraordinary items for fiscal year t scaled by its price as of fiscal $t-1$'s year-end ($epspx_t/prcc\_f_{t-1}$). SPI_t is Firm i's special-items for fiscal year t scaled by its market capitalization as of fiscal $t-1$'s year-end. Special-items include any significant nonrecurring items, asset write-downs, impairments of goodwill, and restructuring charges (SPI_t). WD_t is the sum of asset write-downs and goodwill impairments for firm i for fiscal year t scaled by its market capitalization as of fiscal $t-1$'s year-end (($wdp_t + gdwlip_t$)/$caso_{t-1} * prcc\_f_{t-1}$). RET_t is firm i's cumulative raw return beginning nine months before fiscal year end t to three months after fiscal year-end t. D_t is an indicator variable, equal to 1 if firm i's RET_t is less than zero, and 0 otherwise. *, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively, using two-tailed tests. T-statistics and p-values are calculated using clustered standard errors by firm and year.

1974–2009, with earnings and special items respectively as the dependent variables. Columns (3) and (4) in Table 1 report results for the restricted sample of 40,052 firm-years over 2000–2009, with earnings and write-downs respectively as the dependent variables. Regressions are OLS, with standard errors clustered at the firm and year level. As Table 1 demonstrates, special items and write-downs are expectedly more highly associated with negative returns than positive returns, similar to earnings. Interestingly, earnings exhibit the highest asymmetric timeliness in Table 1. Asymmetric timeliness and indeed the covariance with returns in general for special items and asset write-downs are biased downwards by the fact that they are relatively infrequent. Nevertheless, the results indicate that conservative accounting principles probably influence multiple earnings components beyond special items or asset write-downs, suggesting that earnings is the more comprehensive and thus more appropriate metric in the Basu regressions.

By using changes in market values as a yardstick, the Basu regression framework can be thought of as providing a method of identifying "normal" changes in book values. Existing conservatism literature essentially relies on the Basu regression to identify normal changes in book values conditional on observed changes in market values, and then checks for incremental changes beyond what is normal via interacted-variables analysis. For example consider the structure of the following regression:

$$Earnings_t/Price_{t-1} = \alpha_0 + \beta_0*RET_t + \eta_0*D_t + \gamma_0*D_t*RET_t$$
$$+ \alpha_1*LEV_t + \beta_1*LEV_t*RET_t + \eta_1*LEV_t*D_t + \gamma_1*LEV_t*D_t*RET_t + \varepsilon \qquad (4)$$

where LEV_t captures the financial leverage of the company at the end of year t.

LSS employ this regression in the first two columns of their Table 6, reproduced in Appendix C. The coefficient on $D*RET$ captures the "normal" or "non-discretionary" asymmetric covariance between earnings and negative returns, while the coefficient on $LEV*D*RET$ captures the departure of that covariance from normal that is driven by leverage. This empirical approach is typical of a number of studies including Roychowdhury and Watts (2007), LaFond and Roychowdhury (2008), Francis and Martin (2010), Nikolaev (2010) etc. It would be inaccurate to think of any study exploiting the above regression structure as bereft of any control for normal conservatism.

4. Capturing what is normal: proposed refinements to the Basu measure

Models for the normal level of write-downs or of conservatism can be *miss-specified*, in much the same way that initial models for non-discretionary or normal accruals were later recognized as often being miss-specified. The primary source of miss-specification in the asymmetric timeliness regressions is likely to be the composition of asset values, often captured by book-to-market ratios (BTM).

BTM is likely to influence "normal" variation between changes in book values and changes in market values for a variety of reasons. Beaver and Ryan (2005) distinguish between unconditional and conditional conservatism and point out that BTM is influenced by past unconditional conservatism, which is likely to be negatively associated with future conditional conservatism. Asset values that have already been *unconditionally* written down (for example, via accelerated depreciation schedules) cannot be written down *conditional* on observing negative news, making the firm appear less asymmetrically timely with respect to negative returns.

Roychowdhury and Watts (2007) point out that the equity value of firms with low BTM is often comprised of rents; since accounting books do not attempt to report the value of rents unless externally acquired, they also do not record declines in equity values that reflect the disappearance of rents. Furthermore, historical asymmetric timeliness of earnings will eventually induce an understatement in the separable value of recorded assets, which will lead to lower BTM. But to the extent that firms with higher asymmetric timeliness in the past have been historically more pro-active in writing down the value of assets, they conceivably enjoy a buffer against future write-downs when they experience negative returns in the future. Both effects combine to generate a positive association between BTM at any point in time and future asymmetric timeliness. Finally, the idea that high BTM indicates a higher probability of impaired assets is discussed in Ramanna and Watts (2012), although they do not propose any modification in the measurement of conservatism based on that idea. LSS build on this idea by explicitly advocating that the model for non-discretionary conservatism be refined based on the relation between BTM and impairment probability.

LSS also propose additional refinements, which involve augmenting the Basu regression with the following variables: (1) an indicator variable for $BTM > 1$; (2) weak performance and (3) intangible assets as a proportion of total assets. The objective is to further develop the control for BTM by incorporating the possibility that the relation between the asymmetric timeliness of earnings and BTM depends on the above variables. These refinements are discussed below.

4.1. BTM > 1

The first refinement explicitly conditions the relation between asymmetric timeliness and BTM on whether market values are below book values. The prediction would be that the positive relation between asymmetric timeliness and BTM is more pronounced when equity market values signal a higher probability that recorded assets are impaired. $BTM > 1$ is a particularly interesting partition since it provides significant insights into the discretion inherent in conservative accounting choices.

Table 1 Panel B in LSS – reproduced as Appendix A in this article – indicates that of the two groups of firms with $BTM > 1$ (groups 6 and 7 constituting 26% of the sample), *only 26% report write-downs*. If BTM is a good proxy for when assets are impaired, then it implies that 74% of firms whose assets are impaired can manage to avoid reporting as conservative standards would require. Note that when BTM is in the middle range, that is, between 0.5 and 0.9 (groups 3 and 4 constituting 38% of the sample), 22% of firms report asset write-downs, not that different from when BTM exceeds one. Ramanna and Watts (2012) identify firms with goodwill on the books and $BTM > 1$ in two consecutive years. Even among this sample, the frequency of firms recording goodwill impairments is only 31%, not that much higher than the 26% reported by the authors.

Certainly, the data suggests that managers on average do not seem to be under any compulsion to write down assets when market values fall below recorded book values. At the very least this implies that the premise that $BTM > 1$ captures when firms have to non-discretionally record asset write-downs is flawed. Having said that, the low frequency of write-downs when BTM is greater than one is an interesting phenomenon, and can have two possible explanations. First, managers appropriately arrive at the conclusion that even if market values are depressed relative to book values, recording a write-down is not necessary. This can happen, for example, if managers perceive the markets as having over-reacted to negative information that managers privately expect to be temporary, but cannot credibly communicate to the market in the short-term without incurring proprietary costs. It is conceivable that declines in market values do not always reflect declines in recorded asset values, but this is not very plausible once market values fall below the net book values of recorded assets, that is, BTM rises above one. Second, it is possible that managers exercising their discretion opportunistically, by not recording asset write-downs even when the market assesses there has been a permanent decline in separable asset values. This is more likely when no asset write-downs are observed even though market values remain below book values for extended lengths of time.

For example, goodwill is generally thought to capture rents that a firm generates from operating profitably and creating value beyond its separable assets; conceptually then, it should disappear when market values fall and remain below the separable asset values captured on the books. The data in Ramanna and Watts (2012) suggests that as high as 69% of firms whose market values are depressed below book values for two consecutive years do not record any goodwill impairment, even though goodwill seems to be a significant proportion of assets for these firms (mean proportion of 25%). Thus, either (a) managers possess favorable information regarding their goodwill that they cannot convey credibly to the market, or (b) any positive information managers believe they possess does not become apparent to the market over a span of time as long as two years. Since long-term inefficiencies in market prices are much less likely than short-term aberrations, the patterns are more suggestive of inordinate delays in the recording of impairments motivated by managerial opportunism, at least in the sample of firms examined by Ramanna and Watts (2012).

Another aspect of the relation between asset write-downs and BTM is that of timing. As Appendix A illustrates, write-downs recorded by firms with relatively low BTM tend to be appreciably smaller in magnitude than those recorded by firms with higher BTM. Thus, mean write-downs as a percentage of market value in groups 3 and 4 (BTM between 0.5 and 0.9) is only about a fifth of mean write-downs reported by firms in groups 6 and 7 (BTM of 1.0 and above) respectively, although the incidence of write-downs is similar.[2] One interpretation of this pattern is that write-downs that are reported later (that is, when market values decline to the point where BTM rises above one) tend to be larger in magnitude, precisely because their recognition has been delayed. Thus, variation in the magnitude of write-downs with BTM also reflects variation in the discretion firms enjoy with respect to the timing of write-downs. It is of course possible that managers exercise this discretion either to appropriately reflect their private assessments of asset fair values or to opportunistically delay the timing of recording write-downs; but discretion exists.

Table 2 of this paper presents some descriptive statistics for firms partitioned on whether their BTM is above one at the end of year $t-1$ (that is, whether the indicator variable $BTMD_{t-1}$ is equal to 1), and whether they report special items and/or asset write-downs in year t (that is, the indicator variables $SPI\%_t$ are $WD\%_t$ are equal to 1). Table 2 Panel A reports the descriptive statistics for the full sample of firm-years over 1974–2009 with data on special items, while Panel B reports similar statistics for the restricted sample of firm-years between 2000 and 2009 with data available on asset write-downs. As the results indicate, for a majority of firms in either Panel, BTM is below 1.

For the purposes of discussion we focus on Panel B since for this sample we have explicit data on write-downs. Considering firms with BTM at the end of year $t-1$ greater than one, that is, $BTM_{t-1} > 1$ or equivalently the indicator variable $BTMD_{t-1} = 1$, a relatively small percentage of firms (around 22%, consistent with LSS) report write-downs in year t (that is, $WD\%_t = 1$). Of these firms however, 53.2% have $BTM > 1$ at the end of year t. Firms with $BTM_{t-1} > 1$ that report write-downs in year t continue to report write-downs with a relatively high frequency (37.7%) in year $t+1$. By the end of year $t+1$, only 36.7% of them have $BTM > 1$.

A larger number of firms have $BTM_{t-1} > 1$ ($BTMD_{t-1} = 1$) but do not report write-downs in year t ($WD\%_t = 0$). It is possible that the relative lack of write-downs in year t even when BTM is higher than one reflects the possibility that for a significant percentage of firms, the necessary asset write-downs do not breach materiality thresholds for reporting. Turning now to firms $BTM_{t-1} > 1$ that did not report write-downs in year t, 57.6% have $BTM > 1$ at the end of year t. Further, firms with $BTM_{t-1} > 1$ that do not report write-downs in year t report write-downs with a relatively lower frequency (14.3%) in year $t+1$.

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[2] Mean write-downs as a percentage of market value in Groups 3, 4, 6 and 7 is -0.9%, -1.4%, -4.4% and -7.2% respectively.

Table 2
Mean values of key variables sorted by BTM_{t-1} and write-downs/special items.

Panel A: Mean values of key variables sorted by BTM_{t-1} and special items, 1974–2009					
$BTMD_{t-1}$	$SPI\%_t$	N	Mean $BTMD_t$	Mean $SPI\%_{t+1}$	Mean $BTMD_{t+1}$
0	0	56,498	0.064	0.155	0.089
0	1	22,140	0.065	0.483	0.084
1	0	22,898	0.727	0.096	0.640
1	1	5,760	0.636	0.409	0.517
Panel B: Mean values of key variables sorted by BTM_{t-1} and write-downs, 2000–2009					
$BTMD_{t-1}$	$WD\%_t$	N	Mean $BTMD_t$	Mean $WD\%_{t+1}$	Mean $BTMD_{t+1}$
0	0	18,566	0.041	0.141	0.067
0	1	4,441	0.063	0.365	0.073
1	0	3,254	0.576	0.143	0.454
1	1	939	0.532	0.377	0.367

This table presents the means for $BTMD_t$, $SPI\%_{t+1}$, and $BTMD_{t+1}$ by two-way sort by $BTMD_{t-1}$ and $SPI\%_t$ in Panel A. Panel B presents the means for $BTMD_t$, $WD\%_{t+1}$, and $BTMD_{t+1}$ by two-way sort by $BTMD_{t-1}$ and $WD\%_t$. BTM_{t-1} is Firm i's total assets as of fiscal $t-1$'s year-end scaled by the sum of market capitalization plus total assets minus the book value of total common equity as of fiscal $t-1$'s year-end ($at_{t-1}/(casho_{t-1}*prcc\_f_{t-1}+at_{t-1}-ceq_{t-1})$). $BTMD_{t-1}$ is an indicator variable capturing whether $BTM_{t-1}>1$. SPI_t is Firm i's special-items for fiscal year t scaled by its market capitalization as of fiscal $t-1$'s year-end. Special-items include any significant nonrecurring items, asset write-downs, impairments of goodwill, and restructuring charges (SPI_t). $SPI\%_t$ is an indicator variable equal to 1 if firm i's SPI_t is less than 0, and 0 otherwise. WD_t is the sum of asset write-downs and goodwill impairments for firm i for fiscal year t scaled by its market capitalization as of fiscal $t-1$'s year-end ($(wdp_t+gdwlip_t)/caso_{t-1}*prcc\_f_{t-1})$). $WD\%_t$ is an indicator variable equal to 1 if firm i's WD_t is less than zero, and 0 otherwise.

By the end of year $t+1$, 45.4% of them still exhibit $BTM>1$, an appreciably larger frequency than among firms that reported a write-down in year t (36.7%). Note that for firms whose BTMs remain above one for three consecutive year-ends, the likelihood that necessary write-downs have not reached materiality thresholds is much lower than for firms whose BTMs have just risen above one. The relative patterns with special items in Panel A are largely similar, although there is secular increase across all firms in the persistence of $BTM>1$ relative to Panel B.

The descriptive statistics demonstrate one consistent pattern: firms with $BTM_{t-1}>1$ that do not report asset write-downs in year t exhibit a higher probability of remaining with $BTM>1$ in future years. Consider the possibility that managers do not report negative special items or write-downs in year t with the expectation that market values are only temporarily depressed below book values. As the last column of Panel B corresponding to $BTMD_{t-1}=1$ and $WD\%_t=0$ indicates, the market converges to managers' beliefs at the beginning of the third year 54.6% (that is, $1-0.454$) of the time. In other words, 45.4% of the time that managers do not report write-downs in year t, the market persistently values the firm below book value of assets three years in a row. To the extent that markets are unlikely to be inefficiently assigning low valuations for such extended periods of time, an *a priori* case among such firms for managers inordinately delaying asset write-downs seems stronger, and a closer investigation of their accounting choices is warranted. Of particular interest in these cases would be the role of auditors, and their apparent lack of insistence that managers record material write-downs. The PCAOB Chairman's recent expression of concern (PCAOB, 2013) that auditors are probably excessively reliant on and supportive of the subjective estimates provided by managers assume relevance in this context.

4.2. Weak performance

The second refinement to the Basu model proposed by LSS is poor performance, defined as an indicator variable and denoting that either the average market-adjusted stock returns or the average pre-tax return on total assets is less than an annualized five percent over the last two years. The measurement seems excessively broad; 75% of all sample firms would be classified according to this measure as having weak performance. Conceptually, it stands to reason that firms with a weak performance history are in expectation more laden with under-performing assets, with the consequence that the asymmetric timeliness of their earnings exhibits a greater sensitivity to BTM. At the same time, it is useful to bear in mind that any lack of discretion in recording timely write-downs in response to changes in BTM for such firms does not necessarily arise from the weak performance per se. It could well be the case that the lack of discretion arises because managers would have a difficult time convincing auditors and other parties with an interest in monitoring the firm's accounting choices (such as debt-holders and the board of directors) that assets are not materially impaired when recent performance has been weak and current BTM is high.

4.3. Intangible assets

LSS propose a third and final refinement to the Basu model, the level of intangible assets, on the grounds that the absence of recoverability conditions should make goodwill impairments timelier than fixed asset write-downs. In other

words, goodwill impairments require a straight comparison between goodwill's book value with its fair value, not with the undiscounted sum of cash flows attributable to goodwill; hence goodwill impairments should induce a more positive association between the asymmetric timeliness of earnings and BTM. This argument is a reasonable partial argument, but it is incomplete, because it ignores the discretion available to managers to compute the fair value of goodwill.

Goodwill is not a separable asset; it exists only as a joint benefit to companies from the efficient and effective management of other assets. Post SFAS 142, goodwill impairments need to be assessed at the level of the business unit, and not the firm level. There is almost by construction no observable market value for internal business units. Thus, managers in firms with multiple unlisted units need to develop estimates for the fair value of every unit, as well as the fair value of that unit's recorded assets, in order to compute the fair value of the unit's goodwill as the difference between the two. These multiple fair value assessments conceivably grant managers considerable discretion in the goodwill impairment decisions; this can in turn lead to opportunistic behavior, with the result that goodwill impairments induce a lower sensitivity of earnings' asymmetric timeliness to BTM.

5. The effectiveness of refinements to model normal conservatism

5.1. Do the refinements perform as expected?

A first prerequisite for assessing refinements to the Basu model is to examine whether the proposed modifications yield empirical relations consistent with the rationale for including the refinements in the first place. LSS report that negative special items and asset write-downs are more pronounced for firms with higher BTM, consistent with the notion that assets of high-BTM firms are more likely to be impaired. Further, the sensitivity of asset write-downs to BTM is more pronounced for firms with $BTM > 1$, firms with weak performance and firms with a higher proportion of intangible assets. This test does not speak to whether the special items and asset write-downs recorded in response to variation in BTM are indeed timely with respect to contemporaneous economic news. This is important because negative special items and asset write-downs can be large in magnitude under two scenarios reflective of managerial opportunism: (a) they represent cumulative losses that should have been recognized in prior periods and/or (b) they include the effects of earnings baths. For this reason, it is instructive to also examine whether the larger write-downs and more negative special items also exhibit a greater covariance with contemporaneous returns.

Table 4 in LSS, reproduced as Appendix B in this paper, presents their full model of non-discretionary conservatism; in it, they examine the timeliness of earnings with respect to contemporaneous returns. As Appendix B indicates, the asymmetric timeliness of earnings exhibits a significantly positive association with BTM, with the coefficient on $BTM*D*RET$ statistically significant at the 1% level in all specifications.

LSS denote the indicator variable capturing whether $BTM > 1$ by *BTMD*. The coefficient on $BTMD*BTM*D*RET$ in Appendix B is statistically insignificant. This implies that earnings' asymmetric timeliness is not any more responsive to *BTM* when $BTM > 1$; recall that the rationale underlying the inclusion of this control in LSS would predict a significantly positive association. The indicator variable capturing weak performance is denoted *WEAK*. The coefficient on $WEAK*BTM*D*RET$ in Appendix B is positive and statistically significant. This implies that earnings' asymmetric timeliness is more responsive to *BTM* for firms exhibiting weak performance, consistent with Lawrence et al.'s (forthcoming) rationale for including the control. Finally the proportion of intangible assets in a firm is denoted *INTA*. The coefficient on $INTA*BTM*D*RET$ in Appendix B is negative and statistically significant. This implies that earnings' asymmetric timeliness is less responsive to *BTM* for firms with a higher proportion of intangible assets, inconsistent with Lawrence et al.'s (forthcoming) rationale for including the control (which would predict a significantly positive association).

In summary, the empirical relations exhibited by BTM and weak performance conform to the predictions in LSS, but $BTM > 1$ and intangible assets do not. The lack of results in predicted directions with $BTM > 1$ and intangible assets is not entirely surprising, given the possibility that LSS's (2013) expectations of how these variables are associated with discretionary versus non-discretionary conservatism are potentially flawed, as discussed in Section 4.

5.2. How well do the refinements perform as control variables?

Refinements to generate a better model of normal conservatism are particularly pertinent if they change inferences with respect to the influence of contractual incentives on conservatism discussed in the literature. For example, consider Table 6 in LSS, reproduced as Appendix C in this paper. In column (1) of Appendix C, the coefficient on $LEV*D*R$ (0.182, t-stat$=3.24$) indicates that earnings' asymmetric association with negative returns is modified significantly by leverage. Column (2) of Appendix C presents the results with leverage after controlling for BTM interacted with the Basu regression variables. The results reveal that the coefficient on $LEV*D*RET$ falls after controlling for BTM to a statistically insignificant 0.030. Thus, it would appear that a failure to control for BTM would lead to the erroneous inference that leverage has a significant effect on conservatism. On the other hand, controlling for the other proposed refinements in LSS has little or no incremental effect on the coefficient on $LEV*D*R$, which at 0.041 is still statistically indistinguishable from zero. This pattern repeats itself in every table in LSS examining cross-sectional variation with contractual incentives. To re-iterate, any reduction in the strength of the partitioning variable of interest occurs with the inclusion of BTM; the additional refinements that is, $BTM > 1$, weak performance and intangible assets, do not alter any inference upon their inclusion as control variables.

Collectively, the results broadcast a clear message – when testing for contractual variables, controlling for BTM can alter inferences and hence is probably advisable. Controlling for the additional variables suggested in LSS is superfluous and indeed probably not advisable, as it leads to variable proliferation and potentially lowers power to no discernible end. Including BTM as a control in the Basu regression along with all relevant interactions requires seven explanatory variables excluding the intercept. Including all the refinements proposed by LSS require that *24 more terms* be included in the regression in addition to those seven variables; in all likelihood, these 24 terms would not change any inference beyond controlling for BTM. In addition, the rationale for including these other variables is often weak, as discussed in Section 4.

5.3. Would existing studies be affected if they were subject to the refinements that seem to matter?

No study we are aware of controls for non-discretionary conservatism using the extensive set of explanatory variables proposed by LSS. However, as the discussion in the above section indicates, the key refinement to the Basu model that makes a significant difference as a control variable is BTM. Note that the implications of LSS for existing studies in conservatism are not uniform. In many instances, researchers investigating conservatism already control for BTM, in line with explicit recommendations in earlier studies such as Roychowdhury and Watts (2007). Examples of studies that control for BTM while investigating other determinants of conservatism include LaFond and Roychowdhury (2008), Francis and Martin (2010) and Ramalingegowda and Yu (2012). Yet others use book-to-market as a measure of conservatism, for example, Zhang (2008); for such studies, imposing controls for BTM is not feasible. Finally, LSS stress that it is important for studies to control for BTM measured at the beginning of the period, and not the end; this certainly seems advisable. BTM at the end of any period is influenced by conservatism during the period, as demonstrated in Roychowdhury and Watts (2007).

6. Caveats on compulsive controls for non-discretionary conservatism

A caveat applies to the whole approach of viewing contractual incentives as being the source of "discretionary" conservatism that departs from norms. As the evidence discussed in the preceding sections indicates, GAAP grants managers significant discretion when it comes to implementing conservative accounting choices. Given the discretion in GAAP, it is not unreasonable to expect that firms will develop different norms that are determined by their economic circumstances. Contractual incentives, for example, those arising from the scrutiny of auditors, or the presence of debt-holders (Nikolaev, 2010), or the degree of alignment of interests between managers and shareholders (LaFond and Roychowdhury, 2008) are highly likely to be integral components of the economic environment that influence managers' accounting choices. Thus, contractual forces can very well end up determining how firms "normally" implement standards that grant substantial discretion.

Debt-holders' stakes provide a useful setting for appreciating the impact of contractual forces on conservative accounting. LSS suggest that various proxies for debt-holders' stake in the firm do not influence conservative accounting choice after controlling for BTM. Does it then follow that debt contracting lacks any influence on conservative accounting? Not so. After all, it is reasonably well-argued in the literature that debt-holders' interests are probably a first-order determinant of the very practice of requiring lower verification standards to write down assets when they are deemed impaired; asymmetric verification standards for bad news relative to good news yield book values that can be regarded as lower bounds on the orderly liquidation value of the firm, which is of singular interest to debt-holders. Concluding that debt-holders do not influence conservatism would thus be a mistake, since conservatism inherent in the standards themselves can be a reflection of their interests. In this context, it is pertinent to bear in mind several cross-country studies documenting that "normal" or average level of conservatism at a national level is dependent on the legal regimes, as well as other institutional and contractual features prevalent in those countries, inclusive of capital structures (Ball et al., 2000; Bushman and Piotroski, 2006; Ball Robin and Sadka, 2008).

7. Conclusion

In this section, we summarize a few key elements of our perspective on discretion in conservatism. At the outset, it is important to bear in mind that conservative accounting primarily manifests in the timely recording of bad news based on estimations of future cash flows that are not necessarily verifiable, for example via asset write-downs. Consequently, it provides managers with significant scope for discretion. This discretion can potentially serve one of two purposes. Managers can use the discretion available to them to form their own appropriate assessments about the need for asset write-downs and the appropriate magnitudes thereof. However, since such asset write-downs are often essentially admissions of failure to extract value out of past investments, managers can also have opportunistic motives to exploit their discretion to delay recording write-downs.

External parties including stakeholders to the firm as well as academic researchers do not observe the fair values of specific assets on which managers base their write-down decisions. Consequently, they have to form their own yardsticks to judge the propriety of conservative accounting choices that influence reported earnings. At the firm level, earnings capture the net effect of various accounting decisions. Since earnings essentially represent changes in book value under some simplifying assumptions (clean surplus and no equity issues), a natural candidate for a benchmark to assess the propriety of

managers' accounting choices is the change in the firm's market value. This underpins the Basu regression structure in which earnings is expressed as a function of returns, and the covariance is allowed to depend on the sign of returns.

A measure that disregards the covariance structure between earnings and returns, but is a simpler representation of the relation between the book value of net assets and the market's assessments of firm value is the ratio of book value to market value of equity (that is, book to market ratio, or BTM). BTM greater than one indicates that the value of the firm's net assets is over-represented in the books relative to fair value, which should generally trigger an asset write-down. However, the data indicates that firms with $BTM > 1$ exhibit only around a 22–26% probability of a write-down.

The low frequency of asset write-downs is attributable to two alternative scenarios. First, it is possible that managers arrive at private fair valuations for the firm that indicates to them that the market has over-reacted to transient information, and there is no permanent impairment of assets, or the extent of impairment is too small to be material. In this case, GAAP allows managers the discretion not to report a write-down. Under this scenario, there can be a temporary divergence of beliefs between managers and the market, but market values are expected to rise to match or exceed book values within a reasonably short period of time. After all, market inefficiencies are less likely to persist over longer horizons, and firms are expected to create value over and above the fair value of their separable assets. Thus, if market values persist below book values for extended lengths of time, the probability that material write-downs are warranted is higher.

Second, it is possible managers exploit their discretion to avoid recording write-downs even though they are aware that assets are irreparably impaired. In this scenario, market valuations will persistently remain below book values, in spite of managers refusing to record write-downs. One crucial question in this context is the role of auditors. Chairman Doty of the PCAOB, citing an international survey across the U.S., Canada, the UK and Australia (PCAOB, 2013; Canadian Public Accountability Board, 2011) states "*auditors are too often accepting or attempting to validate management evidence and representations without sufficient challenge and independent corroboration.*" A recent article in the Wall Street Journal (2012) points to the PCAOB's identification of asset valuations and related impairment decisions as an area with sizeable and growing audit deficiencies. If auditors are tacitly complicit with the opportunistic use of fair value models by managers or the inherent information asymmetry makes it difficult for auditors to question managers' fair-value-based estimation procedures, then scope for managerial opportunism is certainly broader and persistently high BTMs are more likely.[3] In general, more research into the identification and relative prevalence of managerial opportunism in the timing and magnitude of accounting choices would be welcome.

Turning now to the authors' measurement of non-discretionary conservatism, it is worthwhile to note that the basic Basu regression, by expressing changes in retained earnings (under clean surplus) as a function of changes in market values, actually serves as a model for normal conservatism. Departures from normal are typically tested via interacted-variables analysis using the partitioning variable of interest (for example managerial ownership, as in LaFond and Roychowdhury, 2008). In this sense, it would be incorrect to assume that the existing literature has not controlled for normal conservatism. The specific refinements that LSS propose are better viewed as attempts to address measurement error in the specification for normal conservatism.

Of all the refinements proposed in LSS to control for non-discretionary conservatism, controlling for BTM seems to be the most justified by economic rationale and also, most likely to make a difference in observed results. The rationale in that paper for controlling for an indicator for $BTM > 1$ and the proportion of intangible assets seems particularly under-developed and incomplete; in addition, the empirical relations they demonstrate are not supportive of the authors' empirical predictions. For future researchers in conservatism, the findings in LSS can be interpreted as essentially highlighting that BTM provides a parsimonious and important control for normal/non-discretionary conservatism, while simultaneously suggesting that more extensive controls are unnecessary, and probably ill-advised. Notably, some existing studies already control for BTM at the beginning of the period, following the findings of Beaver and Ryan (2005) and Roychowdhury and Watts (2007).

In testing for non-discretionary versus discretionary conservatism, LSS characterize contractual incentives as motivating managers to depart from normal conservatism and engage in discretionary accounting practices. This is problematic. Given the rationales repeatedly proposed in the literature for the very existence of conservatism (see Watts and Zimmerman, 1986; Ball, 2001; Watts, 2003), it seems more appropriate to view first-order contractual imperatives as shaping norms, rather than motivating departures from the norm. As an example, consider the evidence in LaFond and Roychowdhury (2008) of a negative association between conservatism and managerial ownership, which the authors attribute to a greater demand for conservatism when managers' interests are less aligned with those of shareholders. One view of this evidence is that when managerial ownership is low, managers "discretionarily" report with greater conservatism. An alternative view is that among firms with low managerial ownership, the norm is to report with greater conservatism than in firms with lower ownership. In other words, one of the most interesting implications of significant variation in conservatism with managerial ownership after extensive controls for elements of the investment opportunity set (including BTM) is the following: GAAP allows substantial discretion in conservative accounting choices, in effect allowing the markets to develop the norms that are appropriate given the economic circumstances, inclusive of contractual considerations. To that extent, the distinction between discretionary and non-discretionary conservatism seems overly simplistic and artificial.

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[3] Table 2 of this paper, discussed in Section 4, provides some preliminary information on the relative frequency with which market valuations persistently remain below book values.

Table A1
Table 1 Panel B (Lawrence et al., 2013).

Panel B – Mean values of key variables sorted by BTM partitions

BTM_{t-1} group	BTM_{t-1} interval	N	BTM	Performance				Write-downs				
			BTM_{t-1}	$WEAK_{t-1}$	Et/P_{t-1}	RET_t	D_t	SPI_t	WD_t	$WD\%_t$	WD_TA_t	WD_INTA_t
1	0–0.3	11,789	0.197	0.650	−0.031	0.049	0.587	−0.008	−0.002	0.143	−0.001	−0.001
2	0.3–0.5	17,401	0.405	0.603	−0.001	0.105	0.506	−0.010	−0.004	0.190	−0.002	−0.002
3	0.5–0.7	23,303	0.603	0.660	0.009	0.143	0.466	−0.015	−0.009	0.221	−0.004	−0.005
4	0.7–0.9	30,100	0.806	0.765	0.013	0.164	0.427	−0.021	−0.014	0.222	−0.005	−0.009
5	0.9–1	20,862	0.952	0.865	0.020	0.192	0.378	−0.024	−0.017	0.159	−0.006	−0.011
6	1–1.2	21,893	1.081	0.831	−0.016	0.270	0.370	−0.042	−0.044	0.228	−0.014	−0.030
7	1.2 & above	14,255	1.454	0.847	−0.071	0.379	0.344	−0.059	−0.072	0.262	−0.033	−0.039

Panel B – Mean values of key variables sorted by BTM partitions

BTM_{t-1} group	BTM_{t-1} interval	Asset composition					Contracting				
		CA_{t-1}	LTI_{t-1}	PPE_{t-1}	$INTA_{t-1}$	$OTHER_{t-1}$	LEV_{t-1}	$DEBT\_ISSUE_t$	$RESTRICT_t$	$EQUITY\_ISSUE_t$	PIN_t
1	0–0.3	0.634	0.048	0.203	0.062	0.053	0.161	0.029	2.196	0.061	0.168
2	0.3–0.5	0.545	0.044	0.267	0.093	0.051	0.180	0.065	3.243	0.044	0.175
3	0.5–0.7	0.496	0.056	0.303	0.093	0.052	0.220	0.137	4.111	0.042	0.193
4	0.7–0.9	0.464	0.092	0.323	0.070	0.051	0.243	0.216	4.270	0.041	0.207
5	0.9–1	0.523	0.144	0.243	0.042	0.048	0.212	0.340	4.547	0.037	0.229
6	1–1.2	0.509	0.105	0.297	0.045	0.044	0.235	0.396	4.861	0.040	0.230
7	1.2 & above	0.549	0.076	0.299	0.043	0.033	0.180	0.285	4.371	0.030	0.341

This table presents the means for these variables sorted by the seven BTM_{t-1} partitions. The sample sizes refer to the main sample of 139,603 observations used in LSS. See the Appendix in their paper for variable definitions.

Finally, some of the confusion with respect to discretionary versus normal conservatism is attributable to the lack a more complete understanding in the literature of how norms with respect to conservative accounting are established and how firms decide that material write-downs are called for. A more thorough and rigorous investigation of the relative roles of auditors, governance structures, managers and contractual counterparties in the development of different equilibrium levels of conservatism for different kinds of firms would be particularly welcome. Furthermore, to the extent that contractual considerations are indeed important in determining conservative accounting choices, then a firm's accounting choices should evolve in response to any evolution in its contractual environment. These issues provide fertile ground for future research.

Appendix A

See Table A1.

Appendix B

See Table B1.

Appendix C

See Table C1.

Table B1
Table 4 (Lawrence et al., 2013).

	Exp. sign	(1) Coef. (*t*-stat)	(2) Coef. (*t*-stat)	(3) Coef. (*t*-stat)
Intercept		0.061***	0.032***	−0.045***
		(8.02)	(2.72)	(−5.59)
D_t		0.004	0.041***	−0.003
		(0.49)	(2.81)	(−0.30)
RET_t	+	−0.029***	−0.005	0.007
		(−3.52)	(−0.60)	(0.89)
D_t*RET_t	+	0.475***	0.018	−0.096***
		(14.81)	(0.58)	(−5.45)
BTM_{t-1}			0.034	0.215***
			(1.54)	(14.90)
$BTM_{t-1}*D_t$			−0.028	0.013
			(−1.20)	(0.77)
$BTM_{t-1}*RET_t$			−0.027*	0.011
			(−1.68)	(0.58)
$BTM_{t-1}*D_t*RET_t$			0.701***	0.339***
			(9.72)	(7.26)
$BTMD_{t-1}$				0.222***
				(3.41)
$WEAK_{t-1}$				0.015**
				(2.51)
$INTA_{t-1}$				0.206***
				(3.28)
$BTMD_{t-1}*BTM_{t-1}*D_t*RET_t$	+			0.124
				(0.54)
$WEAK_{t-1}*BTM_{t-1}*D_t*RET_t$	+			0.204**
				(2.31)
$INTA_{t-1}*BTM_{t-1}*D_t*RET_t$	+			−0.691**
				(−2.33)
Adj R^2		0.0993	0.1431	0.1912
N		139,603	139,603	139,603

This table presents an analysis of the relation between conservatism, as measured per Basu (1997), BTM_{t-1}, $BTMD_{t-1}$, $WEAK_{t-1}$, and $INTA_{t-1}$. *, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively, using two-tailed tests. T-statistics and p-values are calculated using clustered standard errors by firm and year. See the Appendix for variable definitions.

Table C1
Table 6 (Lawrence et al., 2013).

	Exp. sign	(1) Coef. (t-stat)	(2) Coef. (t-stat)	(3) Coef. (t-stat)
Intercept		0.071***	0.041***	− 0.041***
		(8.59)	(3.70)	(− 5.01)
D_t		0.001	0.040***	− 0.002
		(0.18)	(2.95)	(− 0.24)
RET_t	+	− 0.026***	− 0.002	0.007
		(− 3.47)	(− 0.18)	(0.82)
D_t*RET_t	+	0.440***	0.015	− 0.097***
		(13.43)	(0.46)	(− 5.13)
LEV_t		− 0.056***	− 0.058***	− 0.076***
		(− 3.7)	(− 3.52)	(− 5.24)
LEV_t*D_t		0.006	0.007	− 0.004
		(0.37)	(0.43)	(− 0.32)
LEV_t*RET_t		− 0.025*	− 0.026*	− 0.024*
		(− 1.90)	(− 1.90)	(.1.70)
$\textbf{LEV}_t\textbf{*}\textbf{D}_t\textbf{*}\textbf{DET}_t$		**0.182***	**0.030**	**0.041**
		(3.24)	**(0.69)**	**(0.93)**
CONTROLS		No	BTM_{t-1}	$BTM_{t-1}*X_{i,t-1}$
Adj R^2		0.1028	0.1449	0.1943
N		139,603	139,603	139.603

This table presents an analysis of the relation between conservatism and leverage (LEV_t). Results for $CONTROLS_i$ are not reported for brevity. BTM_{t-1} controls in Column (3) include BTM_{t-1}, and its interactions with $D_{i,t}$, $RET_{i,t}$, and $D_{i,t}*RET_{i,t}$, respectively. $BTM_{t-1}*X_{i,t-1}$ controls in Column (4) include BTM_{t-1}, $\sum_{i=1}^{3}(x_{i,t-1})$, $\sum_{i=1}^{3}(BTM_{t-1}*x_{i,t-1})$, and their interactions with $D_{i,t}$, $RET_{i,t}$, and $D_{i,t}*RET_{i,t}$, respectively, where $x_1=$BTMD, $x_2=$WEAK, $x_3=$INTA. *, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively, using two-tailed tests. T-statistics and p-values are calculated using clustered standard errors by firm and year. See the Appendix in LSS for variable definitions.

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