Identifying Conditional Conservatism

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The primary purpose of this essay is to provide useful guidance for empiricists interested in measuring conditional conservatism and in interpreting associations of those measures with variables of interest. Conditional conservatism involves the more timely recognition of bad news than good news in earnings (often referred to as asymmetric timeliness), as occurs with impairment accounting for many types of assets. Conditional conservatism is distinct from unconditional conservatism, which involves the predetermined understatement of the book value of net assets, as occurs with the immediate expensing of the costs of most intangibles. This purpose is predicated on the now widely held view among accounting researchers that conditional conservatism is a distinct and important type of conservatism, one with stronger or at least different ties to contracting than unconditional conservatism.[1] The first four sections of this essay serve this primary purpose.

[1] The intuition underlying this view is that, in order to be useful for contracting purposes, accounting measures must be informative and timely, which conditional conservatism can facilitate but unconditional conservatism cannot. While I generally agree with this view, which is consistent with certain branches of contracting theory (e.g., agency theory examining managerial effort), I also note that contracting involves many complex problems (e.g., project selection), and for some of these problems conditional conservatism could have adverse consequences (e.g., induce managerial risk aversion) and/or unconditional conservatism could have favorable consequences (e.g., alleviate material risk aversion). Such consequences are probably even likely once behavioral considerations are taken into account. Moreover, conditional and unconditional conservatism are interrelated—in particular, unconditional conservatism creates accounting slack that preempts conditional conservatism, as discussed in Section 2—and so it is inherently limiting to consider conditional conservatism separately from unconditional conservatism.

For these reasons, in my view claims made in the literature about the usefulness of conditional conservatism and the lack thereof of unconditional conservatism are more sweeping than is justified. Quite the contrary, I think there are many open empirical questions about the circumstances and ways in which greater conditional conservatism is desirable in isolation or instead of greater unconditional conservatism. In the interest of maintaining the focus of this essay on the identification of conditional conservatism, however, with one exception I do not discuss these issues further. The exception is the preemption of conditional conservatism by unconditional conservatism, which has direct implications for the identification of conditional conservatism and so is discussed in Section 2.

Section 1 describes the nature and importance of conditional conservatism and surveys the literature identifying conditional conservatism, which typically uses returns-based measures of asymmetric timeliness to identify conditional conservatism, beginning with the seminal paper by Basu (1997). Section 2 identifies and comments on the various limitations of asymmetric timeliness identified in the literature, and it describes the general approaches taken to address those limitations. Together, the first two sections describe how the literature has passed through the (dialectical) phase of initial euphoria with Basu's attractive marriage of the important accounting phenomenon of conditional conservatism to its straightforward measurement as asymmetric timeliness (thesis) to one of acute awareness of various limitations of asymmetric timeliness (antithesis). With this awareness, the literature now appears ready for integration of conditional conservatism and asymmetric timeliness into the rich but messy stew that constitutes our understanding of the nature, purposes, and valuation implications of accounting (synthesis).

With the goal of helping to promote such a synthesis, Sections 3 and 4 provide concrete suggestions for empirical researchers interested in identifying conditional conservatism. Section 3 argues that, despite its limitations, asymmetric timeliness is the most direct implication of conditional conservatism. Moreover, alternative measures that have been proposed need not capture any type of conservatism. Hence asymmetric timeliness should retain its primacy of place in the literature investigating conditional conservatism.

Section 4 contains four specific suggestions for estimating asymmetric timeliness and for interpreting it as a measure of conditional conservatism. The first two suggestions involve exploiting the context of the firm's industry and the stage of the business cycle as fully as possible. In my view, this is the most promising route towards improving the estimation and interpretability of asymmetric timeliness, one with the potential to lead to the development of reliable firm-level measures of asymmetric timeliness. Such measures are currently not available and are desperately needed in order to address many research questions empirically. This approach is also the best way to facilitate synthesis of the literature on conditional conservatism with the broader literature on the nature, purposes, and valuation implications of accounting. The third suggestion pertains to controlling for other factors that affect asymmetric timeliness, and the fourth discusses the need to filter returns if they are used as the measure of news in estimating asymmetric timeliness.

While not directly related to the primary purpose of this essay, but recognizing of the importance of this topic, Section 5 briefly comments on how to incorporate conditional conservatism into the literature examining the effect of conservatism in accounting-based valuation models (e.g., Feltham and Ohlson 1995, 1996).

1. Conditional Conservatism and Empirical Research on the Determinants of Asymmetric Timeliness

Conditional conservatism, also referred to as news-dependent or *ex post* conservatism, involves firms writing down the book value of net assets in a timely fashion upon receiving sufficiently bad news but not writing up net assets as quickly upon receiving correspondingly good news, with the latter being the conservative behavior. Examples of conditional conservatism include lower of cost or market accounting for inventory and impairment accounting for long-lived tangible and intangible assets. Conditional conservatism is distinct from unconditional conservatism, also referred to as news-independent or *ex ante* conservatism, which involves firms committing at inception to recognizing book values of net assets that are below their expected market values during their lives. Examples of unconditional conservatism include immediate expensing of the cost of internally generated intangible assets and amortization of long-lived assets at a rate above the expected economic amortization rate.

Although he uses somewhat different language from that in this essay, Basu (1997) effectively focused accounting researchers on conditional conservatism as a distinct and important manifestation of conservatism for the first time. He argues that conditional conservatism reflects the usefulness in contracting and other incentive-related settings to require, for the purposes of accounting recognition, a higher level of verification of good news than bad news. In contrast, Basu does not perceive unconditional conservatism to have any usefulness in contracting because of its news-independent nature. However, Watts (2003a), who emphasizes verifiability somewhat more and news dependence versus independence somewhat less than Basu, does appear to find unconditional conservatism to be useful for contracting purposes.

Basu (1997) identifies and empirically tests for the presence of various implications of conditional conservatism, the primary one being asymmetric timeliness. To test for asymmetric timeliness, he uses positive and negative returns as proxies for good and bad news, and estimates a reverse regression of earnings deflated by beginning price on current returns, with intercept and slope dummies for negative returns. This reverse regression approach should work well *if* returns summarize news from sources other than earnings that becomes available to the market during the period *and* this news in principle could be recognized in earnings in that period. Consistent with these conditions holding to a meaningful extent, Basu finds that the slope coefficient on returns is about five times more positive when returns are negative than when they are positive. He also shows that this measure of asymmetric timeliness varies (on average increases) over the period 1964-1989 consistent with variations (on average increases) in litigiousness. Finally, he provides evidence of the presence of three other implications of conditional conservatism: (1) asymmetric timeliness results somewhat more from accruals than from cash flows, although he finds operating cash flows also exhibit considerable asymmetric timeliness; (2) negative earnings changes are less persistent than positive earnings changes; and (3) in a forward regression of returns on earnings, the slope coefficient on earnings is more positive when earnings are positive then when they are negative.

Reflecting its attractive marriage of an important accounting phenomenon, conditional conservatism, and a straightforward method to identify it, asymmetric timeliness, Basu (1997) is easily one of the most influential papers in accounting research in the past decade, being cited in over 270 published and working papers as of July 2006 according to Google Scholar. The largest concentration of these papers hypothesize and usually find that the extent of conditional conservatism as measured by asymmetric timeliness varies across firms' characteristics, choices, and economic contexts in a fashion consistent with the magnitude of the contracting and incentive issues involved and how the firm has addressed them. The firm characteristics and choices examined include: (1) high- versus low-tech firms (Kwon 2002 and Chandra, Wasley, and Waymire 2004); (2) board composition (Beekes, Pope, and Young 2004); (3) public versus private firms (Ball and Shivakumar 2005a); (4) whether the firm's auditor is large, has industry expertise, or is Arthur Andersen (Basu, Hwang, and Jan 2001a and Krishnan 2005a,b); (5) U.S. cross-listing by foreign firms (Huijgen and Lubberink 2005); (6) the extent of firms' earnings smoothing or earnings persistence (Gassen et al. 2005 and Price 2005); and (7) firm size (Ball and Shivakumar 2005a). The economic contexts examined include (1) the quarters of the fiscal year (Basu, Hwang, and Jan 2001b); (2) the phases of the business cycle (Khurana et al. 2005); and (3) countries (Pope and Walker 1999, Ball, Kothari, and Robin 2000, Ball, Robin, and Wu 2000 and 2003, Giner and Rees 2001, Raonic et al. 2004, Gassen et al. 2005, and Bushman and Piotroski 2005). This last set of papers distinguishes countries based on whether their legal systems are based on code versus common law, on the strength of their legal systems and enforcement of securities laws, on the public and diffuse nature of their capital markets/reliance on equity markets, and on the level of disclosure.

In addition, a sizeable number of papers extend Basu's (1997) analysis of how asymmetric timeliness varies across time, generally in a fashion consistent with variation in legal liability (Ball, Kothari, and Robin 1999, Givoly and Hayn 2000, Holthausen and Watts 2001, Ryan and Zarowin 2003, Sivakumar and Waymire 2003, Raonic et al. 2004, Seetharaman et al. 2004, and Liu and Thornton 2005). For example, the papers examining U.S. data show that asymmetric timeliness is observable early in the 20th century and generally increases up to passage of the Private Securities Litigation Reform Act of 1995, which made it more difficult to file class action lawsuits in federal courts. Liu and Thornton find that asymmetric timeliness declined immediately after this act but increased during 1996 and 1997 as litigation shifted to state courts and then declined again when the 1998 Securities Litigation Uniform Standards Act effectively required securities class action lawsuits to be filed in federal courts.

Several papers show that asymmetric timeliness varies across earnings line items, distinguishing operating cash flow and accruals, and also distinguishing (the components of) working capital accruals, depreciation and amortization, and special items (Callen et al. 2005, Dietrich et al. 2005, Garrod et al. 2005, and Khurana et al. 2005). Similar to Basu (1997), these studies find similar levels of asymmetric timeliness for operating cash flow and accruals. Dietrich et al. ascribe the asymmetric timeliness of operating cash flows to bias resulting from the use of returns to assess asymmetric timeliness, but I conjecture that it is primarily attributable to economic phenomena discussed in the next section. Garrod et al. find that asymmetric timeliness is greater for working capital accruals than for other accruals and that special items exhibits asymmetric timeliness in the U.K. but not the U.S, while Callen et al. find that special items in the U.S. exhibit asymmetric timeliness in a relatively noisy fashion. The findings regarding special items in the U.S. strongly suggest discretionary behavior, because conditional-conservatism-driven write-downs should often appear in these items.

Finally, a few papers show that earnings exhibits asymmetric timeliness with respect to up to three lagged annual returns in the same direction as that for current returns (Pope and Walker 1999, Giner and Rees 2001, Ryan and Zarowin 2003, and Price 2005). These results are consistent with bad news being recognized in earnings quicker than good news, but not necessarily immediately.

2. Limitations of Asymmetric Timeliness as a Measure of Conditional Conservatism

Despite the remarkable success of accounting researchers in finding greater asymmetric timeliness for samples for which conditional conservatism is hypothesized to be greater documented in Section 1, at least seven limitations of asymmetric timeliness as a measure of conditional conservatism have emerged as the literature developed. Some of these limitations apply specifically to Basu's (1997) reverse regression/returns-based approach to estimating asymmetric timeliness, while other limitations apply to any approach to estimating asymmetric timeliness.

First, returns are not equivalent to non-earnings news (Gigler and Hemmer 2001, Bagnoli and Watts 2005, Callen et al. 2005, Dietrich et al. 2005, and Givoly et al 2006). Returns may not reflect all non-earnings information, may reflect good and bad news differentially depending on the firm's disclosure policy, and may reflect the information content of earnings.

Second, conditional conservatism is preempted (i.e., applied less frequently and/or in smaller amounts) by unconditional conservatism (Pope and Walker 2003, Beaver and Ryan 2005, Liu and Thornton 2005, Pae et al. 2005, Roychowdhury and Watts 2005, Givoly et al. 2006). I include in unconditional conservatism the nonrecognition of perceived "unbookable" items—such as firm-level rents, noncontractual understandings, and regulatory events—although Roychowdhury and Watts (2005) view the nonrecognition of these items as distinct from conservatism.

Third, even if conditional conservatism in not preempted, bad news may not be immediately recognized in earnings because of buffers to impairment write-downs in

GAAP, practical difficulties in assessing impairment, and discretionary accounting behavior (Beaver and Ryan 2005 and Callen et al. 2005).

Fourth, it can be difficult to observe asymmetric timeliness empirically when multiple shocks are aggregated in returns and earnings, even when individual shocks are accounted for in an asymmetrically timely fashion (Givoly et al. 2006). This limitation is significant because of the highly aggregated nature of accounting data.

Fifth, certain economic phenomena—such as the abandonment option and the tendency for winners to win over time and to defer gains for tax purposes while losers lose and realize losses for tax purposes more quickly—yield asymmetric timeliness (Watts 2003a,b). I conjecture that these economic phenomena explain some or all of the asymmetric timeliness exhibited by operating cash flows discussed above.

Sixth, certain types of discretionary accounting behavior—such as big bath write-downs and cookie jar reserving—also yield asymmetric timeliness (Hanna 2003). Many accounting observers claim such discretionary behavior is widespread.

Seventh, there is little time-series consistency in estimates of asymmetric timeliness at the firm level and even for cross-sections of firms grouped based on the level of asymmetric timeliness, despite the fact that such consistency generally should be expected in the absence of significant changes in the firm's characteristics, choices, or economic context (Givoly et al. 2006). This limitation is particularly troublesome for empirical researchers, because hypotheses about the contracting and other uses of conditional conservatism usually are most naturally framed and tested as differences across firms.

Many of the papers cited above, especially those examining the preemption of conditional conservatism by unconditional conservatism, point out that asymmetric timeliness is negatively correlated with most measures of overall conservatism, such as the market-to-book ratio. This reflects the fact that assets that are booked unconditionally conservatively—which I conjecture to be a far larger contributor to overall conservatism than is conditional conservatism, although this has yet to be demonstrated in a convincing fashion—are less subject or immune to conditional conservatism. On the other hand, Roychowdhury and Watts (2005) provide evidence that asymmetric timeliness better captures overall conservatism when it is measured over multiple years, and they argue that the market-to-book ratio is affected by the existence of unbookable items that they do not view as conservatism.

Relatedly, Givoly et al. (2006) find that asymmetric timeliness is not lower for firms in two situations in which one would expect less conservative discretionary behavior—firms issuing capital and restating firms—in fact, asymmetric timeliness is higher for the latter firms. Givoly et al. suggest that this may be because conditional conservatism is less discretionary than unconditional conservation and so is negatively correlated with discretionary conservatism.

The identified limitations individually and collectively imply that asymmetric timeliness is not equivalent to conditional conservatism; asymmetric timeliness may exist in the absence of conditional conservatism, and, while conditional conservatism does yield asymmetric timeliness, it may be difficult to observe in the data for various reasons. Hence, these limitations raise the question whether asymmetric timeliness is the optimal or even an appropriate way in which to assess the extent of conditional conservatism.

Dietrich et al. (2005) take the certainly forceful and perhaps extreme position that, because earnings cause returns and not vice-versa, returns-based measures of asymmetric timeliness are hopelessly biased and so researchers should focus instead on other measures of conservatism, such as the variability and skewness of earnings relative to cash flows.[2] As discussed in the next section, while I agree that in principle it would be preferable to estimate asymmetric timeliness using measures of news other than returns, asymmetric timeliness is the most direct implication of conditional conservatism and alternative measures are more likely than asymmetric timeliness to reflect factors other than conditional conservatism.

At least four more promising and non-mutually exclusive approaches have been employed in the literature. The first and most flexible approach is to control—through the specification of the estimation model, the choice of sample, or the use of a control group—for factors other than conditional conservatism that affect asymmetric timeliness. For example, this approach is taken in all the papers exploring the preemption of conditional conservatism by unconditional conservatism. The main potential drawback of this approach is that it may be necessary to control for many factors (as indicated by the long list of limitations of asymmetric timeliness provided above), and given inevitable associations between these factors and the variables of interest it may be difficult to determine the extent to which such control removes the effects of the variables of interest.

[2] In my view, two well-known empirical results together imply the biases identified by Dietrich et al. are likely to be fairly small and so biases in returns-based measures of asymmetric timeliness are likely to be correspondingly small. First, the low R^2s observed in contemporaneous returns-earnings regressions suggest that the extent to which earnings causes returns is tiny compared to the extent to which both variables are determined by other, more primitive information. Second, a large literature, only some of which employs the reverse regressions of earnings on returns used to estimate asymmetric timeliness, exists that shows returns typically reflect information on a timelier basis than earnings.

For example, Gassen et al. (2005) find that it is not possible to observe the differences in asymmetric timeliness across code law and common law countries documented in the prior literature after controlling for differences in unconditional conservatism and income smoothing across countries. One possible explanation of their finding is that legal system drives each of conditional conservatism, unconditional conservatism, and income smoothing, in which case the interpretations made in the prior literature are correct, while another explanation is that legal system just happens to be empirically associated with unconditional conservatism and income smoothing which drive conditional conservatism, in which case the interpretations made in the prior literature are incorrect. In Section 3, I suggest that both controlling and not controlling for other factors and attempting to reconcile the two sets of results may be the best we can do to address this difficulty.

The second approach is to estimate asymmetric timeliness using non-returns-based measures of news in place of or in addition to returns; this approach is the most direct way to address the first limitation listed above. A version of this approach is taken by Ball and Shivakumar (2005b), who use cash flow from operations as a measure of news. The main potential drawback of this approach is the difficulty of identifying variables that convey news in a fashion remotely as comprehensive as returns while not introducing other model specification problems. For example, while operating cash flows are perhaps the most natural choice in terms of comprehensiveness, they raise a host of issues of their own: they exhibit asymmetric timeliness, are affected by a number of accounting choices (e.g., capital versus operating leases), are a part of earnings, and are correlated with accruals in a highly contextual fashion. In Section 3, I suggest conducting analysis at the industry level using industry-specific nonfinancial information and input and output prices as measures of news is the most promising way to apply this approach.

A third approach is to transform the returns and/or earnings variables used in estimating asymmetric timeliness to mitigate the first and third limitations of asymmetric timeliness listed above, respectively. An ambitious example of this approach is taken by Callen et al. (2005), who correlate "earnings news"—the present value of the shock to current and expected future earnings—with unexpected returns. They effectively invert Basu's (1997) logic regarding asymmetric timeliness, arguing that returns are more likely to reflect bad earnings news than good earnings news because earnings is more likely to reflect bad news than good news on a timely basis. A potential drawback of this approach is that some of the attractive simplicity of Basu's (1997) measure of asymmetric timeliness may be lost, depending on how earnings and returns are transformed. For example, because Callen et al.'s measure of earnings news collapses the whole vector of current and future earnings into a single number, empirical work using this construct cannot show exactly when value shocks are recognized in earnings. In Section 3, I suggest a simple way to filter returns in the spirit of this approach, a version of which has already been used by Shroff et al. (2004).

Fourth, Givoly et al. (2006) and many others advocate using (or actually use) multiple measures to assess conservatism, recognizing that each measure captures distinct aspects of conservatism. This approach is entirely sensible, although it is less helpful to researchers interested in assessing conditional conservatism in particular rather than overall conservatism, for reasons discussed in the next section.

3. Why Asymmetric Timeliness Should Remain the Primary Measure of Conditional Conservatism

As discussed above, the literature has identified a number of limitations of asymmetric timeliness as a measure of conditional conservatism. As discussed in the prior section, Dietrich et al. (2005) argue that Basu's (1997) reverse regression/returns-based measure of asymmetric timeliness is hopelessly biased, and they suggest that researchers instead employ the following alternative measures of conservatism: the variability or skewness of earnings relative to cash flow from operations, the build-up of negative operating accruals, and the market-to-book ratio. Of course, Basu (1997) does in fact employ multiple measures of asymmetric timeliness, and one of them, the higher persistence of positive earnings changes than negative earnings changes, does not rely upon returns. In this section, I evaluate whether these alternative measures of conditional conservatism are preferable to asymmetric timeliness measured using either returns or some other measure of news. In this evaluation, I assume the goal of researchers is to assess conditional conservatism, not overall conservatism, say because they are interested in contracting issues for which conditional conservatism is more relevant than unconditional conservatism.

The build-up of negative operating accruals and extent to which the market-to-book ratio exceeds one are perhaps the most natural ways to assess overall conservatism. However, these measures are likely to be primarily driven by unconditional conservatism, which preempts conditional conservatism, and so they are likely not useful for assessing conditional conservatism unless researchers are able to identify specific portions of negative accruals or market-to-book ratios attributable to conditional conservatism. In my view, to be even moderately comprehensive this identification will require something analogous to Basu's (1997) approach to estimating asymmetric timeliness, and so these measures do not by themselves address the issue of identifying conditional conservatism.

On the other hand, the variability and skewness of earnings relative to operating cash flow and the higher persistence of positive than negative earnings changes are likely to be more influenced by conditional conservatism than by unconditional conservatism. This is because conditional conservatism causes bad news to be recognized in big chunks, yielding variability and left skewness in the earnings distribution and relatively transitory negative earnings changes, while unconditional conservatism tends to smooth earnings unless growth is variable. On these grounds, these measures could replace asymmetric timeliness as primary means to assess conditional conservatism.

However, in my estimation these measures have two, far more severe limitations than asymmetric timeliness as means to assess conditional conservatism. First, these measures capture only the extent to which earnings records items—all earnings items in the case of relative variability and earnings-decreasing items in the case of relative left skewness and lower persistence of positive earnings changes than negative earnings changes—in a "chunky" fashion, not the timeliness with which the chunks are recognized. For this reason, these measures need not capture *any* type of conservatism. For example, a firm that always records impairment write-downs of the correct amount but ten years too late (i.e., conditionally anti-conservatively) will over a long enough time-series have similar times-series variability and skewness in earnings relative to operating cash flows and similar persistence of positive and negative earnings changes as a firm that records the same write-downs on a timely basis (i.e., conditionally conservatively). Second, a primary purpose of accrual accounting is to smooth out the variability and skewness in operating cash flows, and in the absence of conditional conservatism one would expect earnings to be less variable and less skewed than operating cash flows. While adding conditional conservatism will make earnings more variable and left skewed than it would otherwise be, one cannot infer that conditional conservatism does not exist if earnings are less variable or less skewed than operating cash flows.

As Basu (1997) recognizes, the most direct implication of conditional conservatism is asymmetric timeliness. While Basu's reverse regression/returns-based approach undoubtedly can be improved upon, the assessment of asymmetric timeliness requires identifying good and bad news and showing when they are recognized in earnings.

4. Suggestions for Estimating Asymmetric Timeliness and Interpreting it as a Measure of Conditional Conservatism

In Section 2, I discuss four general approaches taken in the literature regarding how to estimate asymmetric timeliness more accurately or in a way that makes it more interpretable as a measure of conditional conservatism. In this section, I provide four specific suggestions in this regard. The first two suggestions involve making research on conditional conservatism and asymmetric timeliness more sensitive to the context of the firm's industry and the stage of the business cycle. In my view, this is the most promising route towards improving the estimation and interpretability of asymmetric timeliness, one with the potential to lead to the development of reliable firm-level measures of asymmetric timeliness. This approach is also the best way to facilitate synthesis of the literature on conditional conservatism with the broader literature on the nature, purposes, and valuation implications of accounting. The other two suggestions apply to controlling or not for other factors and filtering returns to make them more appropriate as a measure of nonearnings news.

Incorporate industry context and industry-specific measures of news other than returns. With a few exceptions, such as Kwon (2002), Sivakumar and Waymire (2003), and Chandra et al. (2004), the literature on conditional conservatism has not incorporated industry context. This is unfortunate, because such incorporation could help address a number of the limitations of asymmetric timeliness discussed above. In particular, conducting analysis at the industry level would make it more feasible to develop measures of news that other than security returns. These measures of news could include industry-specific nonfinancial measures—such as order backlog for technology firms and nonperforming loans for banks—as well as input and output price changes—such as oil prices for energy-related industries.[3] Relatedly, it would also make it more feasible to determine the earnings line items in which news should appear and the timing and extent of discretion over the application of conditional conservatism. For example, a decline in the order backlog or in output prices could lead to an inventory write-down the timing of which is related to the product life cycle, an increase in input prices could lead to goodwill write-downs the timing of which is related to cycles in industry profitability, and an increase in nonperforming loans could lead to loan impairment/provision for loan losses the timing of which depends on the types of loans the bank writes. Finally, it

[3] The use of energy prices as measures of news for samples of energy-related firms was suggested to me several years ago by Sudipta Basu.

would make the other economic and accounting factors affecting asymmetric timeliness that researchers need to control for more apparent.

Incorporate the business cycle and how it affects managerial incentives. With the exception of Khurana et al. (2005), researchers have not incorporated the business cycle into the assessment of asymmetric timeliness. This is hard to understand, because it is apparent that conditional-conservatism-driven write-downs should occur more frequently in the bust phase of the business cycle; conversely, cookie jar reserving is more likely to occur in the boom phase of the business cycle. Moreover, as Khurana et al. point out, the market reacts more severely to earnings disappointments in boom times. For this and other reasons, managerial incentives problems and discretionary behavior vary across the business cycle.

Control and don't control for other factors affecting asymmetric timeliness. As discussed above, while many economic and accounting factors other than the variables of interest are likely to affect asymmetric timeliness, and in principle it would be desirable to control for these factors, it is possible and probably even likely that such control would remove some or all of the effects of the variables of interest. An obvious example of this occurs when researchers attempt to control for unconditional conservatism and the measure of unconditional conservatism used (e.g. the market-to-book ratio or cumulative negative accruals) reflects past applications of conditional conservatism. This problem is likely to be faced by every study to greater or lesser degree, given the host of interrelated factors associated with asymmetric timeliness that have been identified in the literature. Obviously, the ideal approach to this problem is to measure all variables perfectly and to model the interrelationships amongst all the variables. Because this ideal is exceedingly difficult to attain, however, it makes sense to conduct analyses both controlling and not controlling for other factors affecting asymmetric timeliness and then attempting to explain the reasons for any difference between the two sets of results.

If you use returns to assess asymmetric timeliness, filter them. Dietrich et al. (2005) emphasize that Basu's (1997) approach to estimating asymmetric timeliness yields bias when earnings information affects returns. As discussed above, the ideal solution to this problem is to use measures of news that do not involve returns. An alternative way to mitigate this problem is to filter returns. Such filtering clearly should involve removing the portion of returns in windows around earnings announcements—in fact, in a specification test Basu 1997 uses fiscal year returns to this end—although this will not eliminate the effects of leakage of earnings information or of complementarity between earnings and nonearnings information. Shroff et al. (2004) employ a particularly promising version of this approach by examining only large return changes in windows other than earnings announcements.

In summary, despite the limitations of returns-based measures of asymmetric timeliness discussed in Section 2, empirical researchers interested in conditional conservatism should still view asymmetric timeliness as the primary measure of conditional conservatism, as discussed in Section 3, and they have various options at their disposal to improve on extant measures of asymmetric timeliness, as reflected in the four suggestions provided in this section.

5. Incorporating Conditional Conservatism into Accounting-based Valuation Models

Some initial steps have been taken towards incorporating conditional conservatism into the general accounting-based valuation framework developed in various papers by Feltham and Ohlson (e.g., 1995, 1996). For example, Price (2005) distinguishes favorable and unfavorable "other information" in such a framework. In my view, this is an important endeavor, one with the potential to generate incremental insights about both the asymptotic properties and short-to-medium-term dynamics of valuation relationships. The incremental insights will be far greater if the specific Feltham and Ohlson framework into which conditional conservatism is incorporated also allows for unconditional conservatism and, in particular, the preemption of conditional conservatism by unconditional conservatism. Both of these attributes are incorporated into Beaver and Ryan's (2005) descriptive model of conservative accounting measurement, which is not explicitly linked to but is in most respects consistent with the Feltham and Ohlson framework.

For example, two fairly straightforward implications of incorporating conditional conservatism into the Feltham and Ohlson framework are:

1. Conditional conservatism yields incremental asymptotic upward bias in market-to-book ratios in an amount that varies inversely with the extent of unconditional conservatism.
2. Conditional conservatism causes the persistence of variation in market-to-book ratios to rise with market-to-book ratios over the range (which may be fairly wide) for which the probability of write-downs falls.

More generally, as Beaver and Ryan (2005) discuss, there is a complex interplay between unconditional conservatism, past applications of conditional conservatism, and future applications of conditional conservatism that remains to be fully explored.

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