Why Are Losses Less Persistent Than Profits? Curtailments versus Conservatism

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ABSTRACT: It is well documented that losses are less persistent than profits and that stock prices anticipate the lower persistence of losses. Yet the underlying explanation for these results is unclear. One explanation lies in the abandonment option, whereby firms with losses are more likely to curtail operations (e.g., Hayn 1995). Another explanation involves timely loss recognition stemming from conservative accounting (e.g., Basu 1997). We show that curtailments are an important factor contributing to the lower persistence of losses. An implication of our results is that popular measures of conservatism, such as the measure proposed by Basu (1997), can also measure curtailments.

KEYWORDS: Conservatism, conditional conservatism, abandonment option, curtailment, asset impairment.

JEL CLASSIFICATION: M41, C23, D21, and G32.

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"RadioShack said that it expects to close up to 1,100 U.S. stores, or about 20% of its footprint, while reporting its fourth-quarter loss widened significantly."
***The Wall Street Journal*, March 4, 2014.**

1. Introduction

It has long been established that losses are less persistent than profits (see Brooks and Buckmaster 1976) and that stock prices anticipate the lower persistence of losses (see Hayn 1995). Yet the underlying explanation for the lower persistence of losses is unclear. Hayn (1995, p. 149) concludes, "Because shareholders have a liquidation option, the informativeness of losses with respect to future cash flows of the firm is limited". In contrast, Basu (1997) concludes that due to the conservatism convention, "earnings is more timely in reporting publicly available bad news about future cash flows". Note that these two explanations are distinct. Under Hayn's explanation, managers take real actions to curtail operations and stem future losses. Under Basu's explanation, managers apply conditionally conservative accounting procedures to record anticipated future losses in current earnings. While subsequent commentators including Watts (2003) have noted that these two explanations are not mutually exclusively and likely coexist, much of the subsequent research has interpreted measures of lower loss persistence as definitive measures of conservatism. For example, Ball, Kothari, and Nikolaev (2013a, 1073) state "the primary result in this paper is that the Basu regression provides econometrically valid estimates of conditional conservatism".

In this paper, we investigate the role of the liquidation option in explaining the lower persistence of losses. We interpret the liquidation option broadly to include any real actions taken by management to curtail underperforming operations. These actions could range from the complete liquidation of the firm to a modest reduction in the scale of unprofitable operations. Our main findings are five-fold. First, we find that the lower persistence of losses extends to

losses measured before the application of conditionally conservative accounting procedures. Second, we show that curtailments are significantly more likely in loss firms. Third, while prior research has interpreted the accrual channel for asymmetric loss persistence as definitive evidence of conditional conservatism (e.g., Basu, 1997), we show that curtailments are also strongly negatively associated with accruals. This result is not surprising, since curtailments typically involve asset liquidations. We show that the relation between curtailments and accruals extends beyond conditionally conservative accruals to include physical asset liquidations. Fourth, we show that curtailments explain significant variation in the Basu measure of conditional conservatism. For example, we show that approximately half of the 'asymmetric timeliness of losses' can instead be explained by curtailments. Finally, we demonstrate that curtailments are a potentially important correlated omitted variable in previous research examining conditional conservatism. Our demonstration focuses on Lafond and Watts' (2008) finding that information asymmetry generates conservatism in financial statements. We predict and confirm that firms engaging in curtailments have greater information asymmetry. We then show that upon controlling for curtailments, the relation between information asymmetry and the Basu coefficient becomes insignificant.

Our findings have three major implications for existing research. First, we demonstrate that earnings persistence is a function of both accounting rules and underlying economic activities. Mean reversion in abnormal profitability is a basic tenet of economic competition. Barriers to competition can sustain abnormal profits, but curtailments and exits are common in the face of abnormal losses. Moreover, curtailments involve real reductions in working capital that lead to negative accounting accruals. Much existing accounting research on loss persistence embraces accounting explanations while overlooking economic explanations.

Second, our findings reinforce the need for conservatism research to employ more direct measures of conditional conservatism. Measures of conservatism based on loss persistence and stock market perceptions thereof are indirect and reflect both accounting and economic forces. Beaver and Ryan (2005) show that conditionally conservative accounting manifests itself in the form of asset write-downs and related special charges. Lawrence, Sloan, and Sun (2013) provide a framework for measuring conditionally conservative accounting using asset write-downs. Our findings highlight the problems of using indirect measures of conservatism, thus reinforcing the case for the use of direct measures.

Finally, our research questions the inferences drawn by existing research examining the determinants of conditional conservatism using indirect measures such as the Basu coefficient. To the extent that the determinants being examined are correlated with curtailments, researchers may have reached incorrect inferences. Of particular concern are studies showing that firms with higher Basu coefficients obtain better credit terms and engage in real activities to improve operating efficiency.[1] Since the Basu coefficient measures the extent to which investors expect losses to reverse, such results are perhaps unsurprising and are also consistent with curtailments.

The remainder of this paper is organized as follows. Section 2 describes the study's motivation and research design, and Section 3 describes the data. Our results are presented in Section 4 and Section 5 concludes.

[1] See, for example, Ahmed, Billings, Morton, and Stanford-Harris (2002); Wittenberg-Moerman (2008); Zhang (2008); Nikolaev (2010); Francis and Martin (2010); Brockman, Ma, and Martin (2012); Carrizosa and Ryan (2013), and Donovan, Frankel, and Martin (2013).

2. Motivation and research design

2.1 Motivation and Prior Literature

A basic implication of economic theory is that competition will cause mean reversion in profitability. For example, Stigler writes (1963, p. 54):

> "*There is no more important proposition in economic theory than that, under competition, the rate of return on investment tends toward equality in all industries. Entrepreneurs will seek to leave relatively unprofitable industries and enter relatively profitable industries.*"

Empirical evidence is generally supportive of this proposition, but the evidence indicates that mean reversion can be slow. For example, Beaver (1970) concludes that accounting rates of return are mean reverting, but that mean reversion takes place over several years. Brozen (1970), Brooks and Buckmaster (1976), Branch (1980), and Fairfield, Whisenant, and Yohn (2003) report similar findings.

Early empirical research in this area also finds that extreme losses tend to mean revert more quickly than extreme profits. Brooks and Buckmaster (1976) attribute this finding to companies that are taking a 'financial bath'. Subsequent research by Branch (1980, p. 60) documents a similar finding, rationalizing it as follows:

> "*A business is expected to exert strenuous efforts to raise its ROI (return on investment) when its profit level is significantly below its potential value. On the other hand, a business will seek to defend a high level of ROI even when it is above its long-run equilibrium.*"

Jacobsen (1980) conducts a detailed examination of the determinants of abnormal profit persistence. He finds that mean reversion in ROI is strikingly higher for observations in the lowest quintile of ROI. Jacobsen argues that the managers of such firms are more likely to undertake dramatic changes to their strategy. He also finds that mean reversion in low ROI is

more pronounced following the exit of a firm from a particular market. This early research clearly documents the lower persistence of losses and anticipates the 'liquidation option' and 'accounting conservatism' explanations that follow.

Hayn (1995) provides the first detailed examination of the hypothesis that because shareholders have a liquidation option, losses are not expected to perpetuate. Hayn (1995, p. 126) describes the liquidation option as follows:

> "*Losses are likely to be considered temporary, since shareholders can always liquidate the firm rather than suffer from indefinite losses.*"

Note that Hayn articulates an extreme version of the liquidation hypothesis, whereby the entire firm is liquidated. In practice, however, the liquidation option can be exercised on just a subset of the firm's assets, such as the closure of an individual segment, division, plant or product line. We therefore employ the term 'curtailment' to encompass the elimination of any subset of the firm's operations.

Hayn's empirical analysis focuses exclusively on regressions of stock returns on earnings. She predicts that the lower information content of losses arising from the liquidation option will result in lower earnings response coefficients and R^2. The results are strongly supportive, with loss firms having both lower earnings response coefficients and R^2 close to zero. Hayn also provides corroborating evidence for the liquidation option hypothesis by demonstrating that earnings response coefficients are larger for loss-making firms in which the probability of liquidation is lower (as proxied by higher bond ratings and the estimated gap between stock price and liquidation value). Absent from Hayn's analysis is any evidence linking the lower persistence of losses to actual liquidations or curtailments. Finally, to rule out

accounting conservatism as an explanation for her results, Hayn checks that her results are robust to measuring earnings before special items.

A number of subsequent studies corroborate Hayn's findings in support of a significant role for the liquidation option in firm valuation. These studies find that firm value is a function of both the earnings from a firm's existing operations and the firm's estimated liquidation value. They also find that earnings become relatively less important and liquidation values become relatively more important as the probability of liquidation increases. Key studies in this area include Berger, Ofek, and Swary (1996), Burgstahler and Dichev (1997), Barth, Beaver, and Landsman (1998), and Subramanyam and Wild (2010). These studies provide corroborating evidence in support of Hayn's hypothesis that losses are less informative about firm value due to the liquidation option. None of these studies, however, directly investigates the impact of liquidations or curtailments on earnings persistence.

Despite relying on very similar empirical results, the conservatism literature embraces a different explanation for the lower persistence of losses. In the seminal paper, Basu (1997) hypothesizes that conservative accounting principles cause earnings to reflect bad news more quickly than good news. This leads Basu to predict that negative earnings changes will be less persistent than positive earnings changes and that earnings response coefficients will be lower for negative earnings changes. The results are consistent with Basu's predictions, but are also consistent with Hayn's liquidation option hypothesis. Basu's primary prediction, however, is that earnings will be more sensitive to negative stock returns than to positive stock returns. In other words, Basu conducts the reverse of the return-earnings regression in Hayn (1995), regressing earnings on stock returns. He then includes an interactive dummy variable on returns that identifies negative stock returns and predicts a positive coefficient on the dummy variable, which

has come to be known as the 'Basu coefficient'. Intuitively, because conservative accounting anticipates future losses but not future profits, a given amount of bad news will be magnified in earnings, making earnings more sensitive to negative stock returns. The results are strongly supportive of this prediction. Note, however, that Hayn's liquidation hypothesis generates the same prediction. If losses are not expected to persist due to the liquidation option, then a large current loss should be associated with a relatively small negative stock returns. In fact, Basu's result is essentially the mirror image of Hayn's result that ERCs are lower for loss firms.[2]

Basu considers the liquidation option as an alternative explanation for his results, but rejects it on the grounds that it does not predict all of his results. First, he shows that the lower persistence of losses is primarily due to negative accruals. Note, however, that negative accruals are also likely to arise from curtailments, because curtailments typically involve asset liquidations. Second, he argues that some time-series variation in the earnings response coefficient is related to changes in auditor liability and thus consistent with the conservatism explanation but not the liquidation option explanation. He does, however, acknowledge that many predictions and results are similar and that the conservatism and liquidations explanations are not mutually exclusive.

Despite the existence of these two competing explanations for the lower loss persistence, the Basu coefficient and variants thereof have become widely accepted as a measure of conservatism. This has led to a burgeoning literature on the determinants of conservatism.

[2] Both Hayn (1995) and Basu (1997) predict that the relation between returns and earnings will be asymmetric between 'good' and 'bad' news, with bad news having a relatively bigger impact on earnings than on stock returns. In Hayn (1995), bad news has relatively less impact on stock returns because investors anticipate firm liquidation and hence the elimination of future losses. In Basu (1997) bad news has relatively more impact on earnings because anticipated future losses are recorded in current earnings. The key econometric difference between the two papers is that Hayn (1995) defines bad news as a loss, while Basu defines bad news as a negative stock return. From a practical perspective, these two definitions are highly correlated, and so both studies provide strong evidence of the predicted asymmetric relation.

Amongst other things, the Basu coefficient has been linked to debt contracting efficiency, manager-shareholder alignment, and operating efficiency.[3] Some studies have argued that the Basu coefficient is affected by factors other than conditional conservatism. Dietrich, Muller, and Riedl (2007) and Patatoukas and Thomas (2011) point to econometric misspecification, while Givoly, Hayn, and Natarajan (2007) point to event clustering and disclosure policies. These studies, however, are rebuffed by Ball et al. (2013a) and Ball, Kothari, and Nikolaev (2013b). In particular, Ball et al. (2013a, p. 1083) conclude that:

> *"the Basu asymmetric timeliness coefficient is positive in the presence of conditional conservatism, and zero in the absence of conditional conservatism, consistent with it being a valid estimator."*

No prior research directly investigates the impact of curtailments on the Basu coefficient. Perhaps the study most closely related to ours is Hsu, O'Hanlon, and Peasnell (2011). Hsu et al. (2011) examines whether financial distress is an omitted determinant of the Basu coefficient. The study finds that while financial distress is related to the Basu coefficient, it affects the Basu coefficient through the accrual component of earnings. The authors argue that this result is consistent with a higher degree of conditional conservatism in financially distressed firms rather than an omitted determinant of loss persistence. Our paper offers a different interpretation of their findings. We show that curtailments are more common in distressed firms and that curtailments also lead to negative accruals. We also demonstrate that curtailments are an omitted determinant of loss persistence and hence the Basu coefficient.

2.2 Research Design

Our primary goals in this paper are twofold. First, we seek to determine the importance of curtailments in driving the asymmetrically low persistence of losses. Second, we seek to

[3] See Ruch and Taylor (2011) for a partial review of this literature.

establish whether curtailments are a correlated omitted variable in previous conservatism research. To this end, we conduct five sets of tests. Our first set of tests examines whether the asymmetrically low persistence of losses remains after removing the effects of conditionally conservative accounting from earnings. These tests establish whether conditional conservatism can provide a complete explanation for the lower persistence of losses. Our second set of tests directly examines the relation between curtailments and losses. These tests establish whether curtailments contribute to the lower persistence of losses. Our third set of tests examines the component(s) of earnings through which curtailments affect loss persistence. Because curtailments typically involve asset liquidations, we expect curtailments to affect the accrual component of earnings. Our fourth set of tests models conditionally conservative accounting and curtailments as joint determinants of loss persistence and quantifies their relative importance. Finally, our fifth set of tests revisits a prior conservatism study in which curtailments are a potentially correlated omitted variable and evaluates the importance of controlling for curtailments. We describe each set of tests in more detail below.

2.2.1 Asymmetric loss persistence and conditional conservatism

Conditional conservatism refers to accounting practices under which book values are written down under sufficiently adverse circumstances, but not written up under favorable circumstances (Basu 1997; Beaver and Ryan 2005). Examples include the lower of cost or market rule for inventory and the impairment rules for long-lived tangible and intangible assets. These accounting practices result in asset write-downs that accelerate the recognition of future expenses. The conditional conservatism literature argues that these write-downs drive the lower persistence of earnings. A straightforward way to evaluate the impact of conditionally conservative accounting on loss persistence is to examine the persistence of losses before and

after the inclusion of asset write-downs. Compustat classifies the impact of asset write-downs on net income in the 'special items' component of net income. This item also includes 'any significant non-recurring items'. Therefore, so long as Compustat correctly classifies most write-downs as special items, the impact of conditional conservatism should be concentrated in this component of earnings. Available evidence indicates that Compustat captures the vast majority of write-downs and other non-recurring charges in 'special items' (see Riedl and Srinivasan 2010; Johnson, Lopez, and Sanchez 2011).[4] We note that Hayn (1995, p. 148) discusses related tests, and while she does not report the results, she summarizes her findings as follows:

> "*even when loss items that are the most typical outcome of applying conservatism to the financial statements (e.g., provisions for future losses, write-offs and restructuring charges) are excluded from the sample of losses, the result remain intact.*"

Given Hayn's findings, it is surprising that subsequent research has interpreted the Basu coefficient as an exclusive measure of conditional conservatism. Nevertheless, Hayn does not report her results, and the results that she discusses relate exclusively to the information content of losses and she does not directly examine loss persistence. We therefore begin by examining the extent to which asymmetric loss persistence is attributable to earnings measured before special items. Stating the hypothesis in alternative form:

H1: Earnings measured before special items exhibit asymmetric loss persistence.

[4] Riedl and Srinivasan (2010) hand-collect special items from annual reports for a sample of 500 US companies over the period 1993-2002. While not reported in the paper, Eddie Riedl indicated in private correspondence that the correlation between the hand-collected sample of special items and Compustat special items exceeds 90%. Johnson, Lopez, and Sanchez (2011) also hand collect special items to verify the quality of Compustat special items. For a sample of 368 firms reporting special items on Compustat, they find differences in the hand-collected and Compustat amounts in 22% of cases, though the differences are relatively small. The trimmed mean (median) of the ratio of Compustat special items to total assets is 6% (2%), while the trimmed mean (median) of the differences is 2.1% (0.4%). Further, for a sample, of 174 firm years with no special item values on Compustat, they find special items in 16% of the cases, though the magnitudes are again relatively small, with a trimmed mean (median) of 2.7% (0.9%).

Evidence supporting this hypothesis is consistent with another explanation (e.g., curtailments) as an explanation for the lower persistence of earnings.

2.2.2 Asymmetric loss persistence and curtailments

Our next set of tests directly investigates the relation between curtailments and asymmetric loss persistence. If firms incurring losses simultaneously engage in curtailments aimed at eliminating loss-making operations, then we should see evidence of lower loss persistence. We use a two-step test to identify the presence of curtailments. First, we require the number of employees working for the firm to have decreased over the previous year. The key limitation of using this measure in isolation is that employee reductions could also be attributable to improvements in operating efficiency, such as the implementation of more capital intensive production processes. Consequently, we also require sales revenues to have decreased over the previous year. Note that a reduction in sales revenues alone is also consistent with reduced selling prices or reduced product demand that is not accompanied by curtailments. Contemporaneous reductions in both the number of employees and sales revenues are most consistent with curtailments. We also look at the frequency of performance-related exchange delistings over the subsequent 3 years. The key shortcoming of this measure is that it only captures extreme curtailments, such as the liquidation of the entire firm. We hypothesize that loss firms will reflect higher levels of curtailment activities than profit firms. Stated formally:

H2: Loss firms have a higher frequency of curtailments than profit firms.

Evidence in support of *H2* demonstrates that loss firms engage in systematically different economic activities than profit firms.

Economic intuition suggests that curtailing the operations of a loss-making business should reduce future losses. In order to provide direct evidence in this respect, we next examine whether loss persistence is lower for firms that curtail operations. We note at the outset that our tests of this hypothesis have one particular limitation. To understand this limitation, consider two firms with similarly sized current losses, but assume that the loss is due to a transitory negative demand shock in one firm and a permanent negative demand shock in the other firm. We would only expect the latter firm to engage in curtailments, but we would expect low loss persistence for both firms. In other words, curtailments are an endogenous response to managers' expectations of loss persistence. Unless some managers of firms with persistent losses neglect to engage in curtailments, we won't find evidence of lower loss persistence for curtailment firms versus non-curtailment firms. With this limitation in mind, our third hypothesis is:

H3: Loss firms engaging in curtailments have relatively lower loss persistence than loss firms that are not engaging in curtailments.

2.2.3 Accruals and curtailments

Recall that one of the key findings offered in support of the conservatism explanation for lower loss persistence is that loss persistence is lower when the loss is attributable to negative accruals rather than negative cash flows (Basu, 1997). This underlying argument is that conditional conservatism manifests itself through asset write-downs and associated non-cash charges to earnings. We previously noted that negative accruals are also consistent with curtailments, because curtailments typically involve the liquidation of working capital and fixed assets. For example, if a firm eliminates a product line, the associated working capital and PP&E will typically be liquidated, resulting in negative accruals. Our fourth hypothesis concerns the link between curtailments and accruals:

H4: Firms engaging in curtailments have lower accruals than firms that are not engaging in curtailments.

It is likely that loss firms engaging in curtailments will simultaneously be engaging in asset write-downs and asset liquidations. Thus, evidence in support of *H4* can be interpreted as consistent with the conservatism explanation and the curtailment explanation. Under the conservatism explanation, the negative accruals arise from asset write-downs (e.g., a goodwill write-down) whereas under the curtailment explanation, the negative accruals arise from physical reductions in working capital (e.g., liquidating the inventory of a discontinued product line). Fortunately, the operating section of the statement of cash flows distinguishes between accruals related to asset write-downs versus accruals related to changes in physical working capital levels.[5] The Compustat database classifies asset write-downs into the line-item "Funds from Operations - Other". This line-item also includes other items that are not directly related to conditionally conservative accounting, such as the amortization of negative intangibles. Nevertheless, accruals related to conditionally conservative accounting should be concentrated in this Compustat item. The remaining accruals should reflect contemporaneous transactions and events, such as the physical liquidation of inventory.[6] We refer to accruals in the former category as 'conditionally conservative accruals' and accruals in the latter category as 'other accruals'. We expect curtailments to be related to negative accruals in both categories, while we expect accruals related to conditional conservatism to be concentrated in the former category. This leads to two extensions of *H4*:

[5] See SFAS 95 Appendix B, Footnote 17 and Appendix C paragraph 136. Note that these provisions only apply when using the indirect method for the statement of cash flows, but since the vast majority of firms use the indirect method, data availability is not an issue.

[6] To investigate whether this seems to be the case, we manually checked the financial statements of 10 firm-years with the largest reductions in 'other accruals'. The findings confirmed that the reductions were primarily due to physical reductions in assets or increases in liabilities and not to asset write-downs or related non-cash charges.

H4a: Firms engaging in curtailments have lower conditionally conservative accruals relative to firms that are not engaging in curtailments.

H4b: Firms engaging in curtailments have lower other accruals relative to firms that are not engaging in curtailments.

Note that evidence in support of *H4a* is consistent with both conservatism and curtailments, while evidence in support of *H4b* is only consistent with curtailments.

2.2.4 Curtailments and the Basu coefficient

We next seek to establish the relative importance of curtailments in explaining the Basu coefficient. Recall that the Basu coefficient is not a direct measure of conservatism. Instead, it is an estimate of investors' perceptions of loss persistence. More specifically, the Basu coefficient is increasing in the extent to which negative stock returns are associated with asymmetrically large negative earnings. It is interesting that prior research often refers to the Basu coefficient as a measure of the 'asymmetric timeliness of earnings'.[7] This interpretation of the Basu coefficient implicitly assumes that conditionally conservative accounting is the only reason that losses are expected to be less persistent than profits. We view such an interpretation as premature, because lower loss persistence could also be driven by curtailments. Our fifth hypothesis directly examines the relation between the Basu coefficient and curtailments:

H5: Firms engaging in curtailments have larger Basu coefficients.

In order to gauge the relative importance of curtailments versus conditionally conservative accounting, we further examine the earnings channel(s) driving lower loss persistence. Recall that under the conditionally conservative accounting explanation, lower loss

[7] See, for example, Basu (1997), Roychowdhury and Watts (2006), and Ball et al. (2013b).

persistence should emanate from conditionally conservative accounting accruals (i.e., asset write-downs). The curtailment explanation, in contrast, also predicts that lower loss persistence should emanate from other accruals. This leads to three extensions of *H5*, each of which differs with respect to the dependent variable used to estimate the Basu coefficient.

H5a: Firms engaging in curtailments have larger Basu coefficients when using earnings before conditionally conservative accounting accruals as the dependent variable.

H5b: Firms engaging in curtailments have larger Basu coefficients when using conditionally conservative accounting accruals as the dependent variable.

H5c: Firms engaging in curtailments have larger Basu coefficients when using other accruals as the dependent variable.

The conservatism explanation is only consistent with hypothesis *H5b*. The curtailment explanation is also consistent with *H5a* and *H5c*.

2.2.5 Curtailments as an omitted variable in prior research

As noted above, most previous research implicitly assumes that the Basu coefficient and related measures of asymmetric loss persistence can be interpreted as valid measures of conservatism. To the extent that curtailments also lead to lower loss persistence, curtailments and their precipitating events offer an alternative potential explanation for results previously attributed to conservatism. We illustrate this possibility by revisiting the relation between information asymmetry and conservatism. We select this setting for three reasons. First, the landmark paper in this area by Lafond and Watts (2008) has been particularly influential.[8] Second, the mechanism through which managers in firms with higher information asymmetry

[8] As of the current writing, *Google Scholar* lists over 400 citations to this paper.

pre-commit to engage in more conservative accounting practices is unclear. Lafond and Watts (2008, p. 447) argue that:

> "*Information asymmetry between firm insiders and outside equity investors generates conservatism in financial statements. Conservatism reduces the manager's incentives and ability to manipulate accounting numbers and so reduces information asymmetry and the deadweight losses that information asymmetry generates. This increases firm and equity values.*"

However, the paper is silent on the specific governance mechanism through which heightened conservatism is achieved. The absence of such a mechanism raises the specter of correlated omitted variables. Third, curtailments and their precipitating events should cause increased information asymmetry. In particular, curtailments are typically made in response to losses, and previous research concludes that loss firms experience higher information asymmetry (Ertimur, 2004; Wittenberg-Moerman, 2008). Our sixth and final hypothesis is therefore stated in alternative form as follows:

H6: Greater information asymmetry leads to a higher Basu coefficient, even after controlling for curtailment activities.

Curtailments may also be a correlated omitted variable in other studies of conservatism that use the Basu coefficient and related measures of conservatism. A re-examination of additional studies is beyond the scope of the current paper. We do, however, note that the omitted variables are a particular concern in studies documenting the positive real effects of heightened conservatism. For example, prior research shows that a higher Basu coefficient is associated with lower borrowing costs (e.g., Ahmed et al. 2002) and better subsequent operating performance (Donovan et al. 2013). Given that the Basu coefficient is a general measure of anticipated loss reversal, these results are to be expected and may have explanations other than conservatism.

3. Data

3.1 Sample selection

Our empirical tests employ data from three sources. We obtain financial-statement data from the Compustat database, stock-return and delisting data from the CRSP database, and the probability of information-based trading (*PIN*) data from Duarte and Young (2009). Our sample period covers all firm-years with available data on Compustat and CRSP from 1974 to 2011. We start the sample in 1974 because special-items are not widely available prior to this point. We also use shorter sub-periods for some analyses due to data restrictions. In particular, cash flow data is available in Compustat beginning in 1989 and the PIN data is only available from 1983 to 2004.

To be included in the final sample, we require firm-year observations to have non-missing data for the following variables: (a) stock price, market capitalization, and book value of common equity data as of the prior year's fiscal year-end; (b) total assets, number of employees, and total sales for the current and the previous fiscal year; (c) earnings-per-share before extraordinary items, annual stock returns, and the statement of cash flow items: income before extraordinary items, cash flow from operating activities, and 'funds from operations – other' for the current year; and (d) income before extraordinary items and special items for the current and the next fiscal year.

As described earlier, we measure the existence of curtailments using a dummy variable, *CURTAIL_D*, which is set to one when both the number of employees (*emp*) and sales revenue (*sale*) are lower than in the previous year. Formally:

$CURTAIL\_D_t = 1$ if $emp_t < emp_{t-1}$ and $sale_t < sale_{t-1}$; 0 otherwise.

A comprehensive description of our variable definitions is provided in Appendix A. We replace positive special-items with zero values in attempt to isolate conservative accounting practices. For all our analyses, we exclude observations in the top and bottom one percent of the financial variable distributions in order to reduce the effects of outliers.[9] After imposing the aforementioned data restrictions we obtain 135,031 firm-year observations for the main sample, 91,473 firm-year observations for the sample requiring accruals and cash flow data, and 30,707 firm-year observations for the sample requiring PIN scores.

4. Results

4.1 Asymmetric loss persistence

As described in Section 2, we begin our analyses by examining whether the lower persistence of losses appears to be solely related to conditional conservatism or whether other factors also appear to be at work. Table 1 first estimates the persistence of losses using earnings including special items. Special items incorporate asset write-downs, the primary manifestation of conditionally conservative accounting. Specifically, Column (1) presents regression analyses examining the relation between current return on assets (ROA_T_t) and future return on assets (ROA_{t+1}) when conditioning on the occurrence of losses in the current period. We define return on assets in year *t* (ROA_T_t) as income before extraordinary items in year *t* scaled by ending total assets, and return on assets in year *t+1* as income before extraordinary items in year *t+1* scaled by beginning total assets. We deflate current year's income and next year's income by total assets in the same year to mitigate any scaling effects on earnings persistence. We define a loss dummy ($LOSS_t$) as "1" if income before extraordinary items is less than zero, and "0" otherwise. Column (1) shows the results from the model that regresses ROA_{t+1} on ROA_T_t, $LOSS_t$, and an

[9] All inferences are robust to winsorizing the financial variables at the top and bottom one-percent levels.

interaction between ROA_T_t and $LOSS_t$. The positive and significant coefficient on ROA_T_t (*coef.* = 0.923; t = 87.70) confirms the high persistence of earnings for profit firms, and the negative and significant coefficient on $ROA\_T_t*LOSS_t$ (*coef.* = -0.349; t = -27.12) confirms that losses are significantly less persistent than profits. Figure 1, Panel A, graphically illustrates these findings and confirms that the persistence of earnings is dramatically lower for loss firms than for profit firms.

Column (2) of Table 1 repeats the analysis of Column (1) using earnings before special items ($ROAbSPI\_T_t$ and $ROAbSPI_{t+1}$). In this analysis, we define pre-special item losses ($LOSSbSPI_t$) as "1" if income before extraordinary items and special items is less than zero, and "0" otherwise. The positive and significant coefficient on $ROAbSPI\_T_t$ (*coef.* = 0.915; t = 97.17) is very similar to the coefficient on ROA_T_t in Column (1), where earnings are calculated after special items. The coefficient on $ROAbSPI\_T_t*LOSSbSPI_t$ (*coef.* = -0.241; t = -19.41) is still negative and significant, and is approximately 70 percent as large as the coefficient on $ROA\_T_t*LOSS_t$, suggesting that roughly 70 percent of the asymmetric loss persistence is attributable to earnings measured before special items. These findings are consistent with *H1*'s prediction that earnings measured before special items exhibit asymmetric loss persistence, highlighting that the majority of the lower persistence of losses does not appear to be attributable to conditional conservatism (i.e., special items). Columns (3) and (4) repeat the analyses in Columns (1) and (2) after replacing *LOSS* with *D*, a dummy variable for negative stock returns. Following Basu (1997), we define *D* as "1" if cumulative raw returns beginning nine months before fiscal year-end t to three months after fiscal year-end t are less than zero, and "0" otherwise. The inferences from Columns (3) and (4) are similar to those of Columns (1) and (2), confirming that earnings are also less persistent for negative return firms than for positive return

firms. Figure 2, Panel A illustrates this finding in graphical form. Strikingly, the coefficients on $ROA\_T_t*D_t$ and $ROAbSPI\_T_t*D_t$ in Columns (3) and (4) are both -0.189, suggesting that the differential persistence of earnings between positive return and negative return firms is unrelated to conditional conservatism.

4.2 Curtailments and asymmetric loss persistence

Our next set of analyses directly investigates the relation between asymmetric loss persistence and curtailments. As described in Section 3, our measure of curtailments, $CURTAIL\_D_t$, is based on simultaneous reductions in both sales and employees. We define $\Delta SALE_t$ and ΔEMP_t as the change in sales and the change in number of employees respectively between the year *t* and year *t-1*, scaled by beginning total assets. $SALEDEC_t$ and $EMPDEC_t$ are indicator variables identifying year-over-year decreases in each of these respective variables. $CURTAIL\_D_t$ is our curtailment indicator variable, which identifies cases where both $SALEDEC_t$ and $EMPDEC_t$ are equal to one. We also examine performance-related delistings over the next three years, which should capture extreme curtailments ($DELIST_{t+1,t+3}$). Table 2 presents the Spearman and Pearson correlations for the earnings and curtailment variables used in our analyses. The correlations highlight that curtailments ($CURTAIL\_D_t$) are negatively related with earnings (E_t/P_{t-1}) and accruals (ACC_t/P_{t-1}) and positively related with losses ($LOSS_t$) and negative stock returns (D_t).

Table 3, Panel A examines the frequency of curtailment activities for loss and profit firms. Consistent with *H2*, we find evidence across all of the curtailment variables that loss firms have a significantly higher frequency of curtailments. For example, 33 percent of loss firms have a positive curtailment indicator versus only 12 percent of profit firms. Loss firms are also four times more likely to delist over the next 3 years. Figure 3, Panel A provides time series plots of

CURTAIL_D$_t$ for profit versus loss firms, reinforcing Table 3's finding that loss firms experience a spike in curtailments while profit firms experience a dip in curtailments. Figure 3, Panel B provides time series plots of future delistings for loss versus profit firms. The sharp spike in subsequent delistings for loss firms is clearly evident in each of the next five years. Moving back to Table 3, Panel B replicates Panel A, but partitions observations based on loss before special items (*LOSSbSPI*$_t$). The results are very similar to those in panel A, with loss firms experiencing significantly more curtailments. Finally, Panel C confirms that curtailments are higher for firms with negative returns (D_t) than for firms with positive returns, though the results are somewhat weaker than in panels A and B. Taken together, the findings in Table 3 provide evidence in support of *H2* and demonstrate that loss firms not only engage in systematically different accounting practices, but also engage in systematically different economic activities that are aimed at curtailing loss-making operations.

We next examine whether curtailment activities mitigate future losses. Table 4, Panel A presents results from regressions of ROA_{t+1} on *ROA_T*$_t$, *CURTAIL_D*$_t$, and an interaction between *ROA_T*$_t$ and *CURTAIL_D*$_t$. Since we are interested in the impact of curtailments on loss persistence, we only estimate the regression for firms with losses in year *t*. The positive and significant coefficient on *ROA_T*$_t$ (*coef.* = 0.666; *t* = 72.34) in Column (1) suggests that year-over-year losses for firms without curtailments are fairly persistent; however, the negative and significant coefficient on the *ROA_T*$_t$**EMPDEC*$_t$ interaction term (*coef.* = -0.247; *t* = -16.72) indicates that year-over-year losses are significantly less persistent for firms implementing curtailments. Column (2) of Table 4 repeats the analysis of Column (1) using earnings before special items (*ROAbSPI_T*$_t$ and *ROAbSPI*$_{t+1}$). The results are very similar to those in Column (1),

suggesting that conditionally conservative accounting does not explain the lower persistence of losses for firms with curtailments.

Panel B of Figure 1 illustrates the Table 4 results in graphical format. The figure plots the median ROA for loss firms after further subdividing loss firms into those with and those without curtailments (with both losses and curtailments measured in year *t*). The lower persistence of losses for the curtailment firms is clearly evident. Panel B of Figure 2 provides similar plots, but in the spirit of Basu (1997), it uses negative versus positive stock returns in place of losses and profits to identify bad news. Again, it is clear that ROA is least persistent for the subgroup with both negative returns and curtailments. Together the findings in Table 4 and Figures 1 and 2 provide evidence consistent with *H3* that loss firms engaging in curtailments experience lower loss persistence than loss firms that are not engaging in curtailments.

4.3 Curtailments and accruals

Next we investigate whether firms engaging in curtailments have lower accruals than firms that are not engaging in curtailments. Table 5 presents the differences in earnings (both E_t/P_{t-1} and $EbSPI_t/P_{t-1}$), total accruals (ACC_t/P_{t-1}), conditionally conservative accruals (CCA_t/P_{t-1}), other accruals (OA_t/P_{t-1}), and operating cash flows (CFO_t/P_{t-1}) for firms with and without curtailments. We define E_t/P_{t-1} as earnings per share excluding extraordinary items for fiscal year *t* scaled by its price as of fiscal *t-1*'s year-end and $EbSPI_t/P_{t-1}$ as earnings per share excluding extraordinary items and special items for fiscal year *t* scaled by its price as of fiscal *t-1*'s year-end. Following Hsu et al. (2011), total accruals (ACC_t/P_{t-1}) is calculated as firm *i*'s total accruals (income before extraordinary items and noncontrolling interests minus net cash flow from operating activities before extraordinary items) for fiscal year *t* scaled by the number of common shares, divided by price as of fiscal *t-1*'s year-end. We decompose total accruals into

conditionally conservative accruals (CCA_t/P_{t-1}) and *other accruals* (OA_t/P_{t-1}), where *conditionally conservative accruals* represent 'Funds from Operations – Other' from the Statement of Cash Flow, and *other accruals* are defined as the difference between total accruals and conditionally conservative accruals. 'Funds from Operations – Other' is defined by Compustat to include asset write-downs and other non-recurring non-cash charges. As such, it should capture asset write-downs attributable to conditionally conservative accounting. Lastly, we define CFO_t/P_{t-1} as net cash flow from operating activities for fiscal year *t* minus extraordinary items for fiscal year *t* scaled by the number of common shares, divided by its price as of fiscal *t-1*'s year-end.

Panel A of Table 5 compares the components of earnings across firms engaging in curtailments versus firms not engaging in curtailments. The results indicate that firms engaging in curtailments have significantly lower ($p < 0.01$) earnings (E_t/P_{t-1}, $EbSPI_t/P_{t-1}$), total accruals (ACC_t/P_{t-1}), conditionally conservative accruals (CCA_t/P_{t-1}), and other accruals (OA_t/P_{t-1}). The magnitudes of the differences reveal two key results. First, the difference in earnings between curtailment and non-curtailment firms is entirely attributable to accruals. Second, the majority of the difference in accruals (approximately 70 percent) relates to *other accruals* and not *conditionally conservative accruals*. Also worth noting is that we find no evidence of a difference in operating cash flows (CFO_t/P_{t-1}) for curtailment firms. A likely explanation for this finding is that while curtailment firms have poor operating performance, they are simultaneously liquidating working capital and generating cash in the process. Panel B of table 5 presents a similar set of results using future delistings in place of curtailments. Earnings and accruals are again lower for the firms that subsequently delist, and the lower accruals relate to both conditionally conservative accruals and other accruals. The only major difference from Panel A

is that cash flows are also lower for firms that subsequently delist, perhaps because they are experiencing chronically poor operating performance.

The findings in Table 5 provide evidence in support of *H4*, that firms engaging in curtailments have lower accruals than firms that are not engaging in curtailments. Moreover, consistent with *H4a*, we find that firms engaging in curtailments have lower *conditionally conservative accruals* and consistent with *H4b*, we also find that firms engaging in curtailments have lower *other accruals*. As highlighted in Section 2, findings in support of *H4a* provide evidence that is consistent with both conservatism and curtailments, while findings in support of *H4b* are only consistent with curtailments. Hence, it appears that the majority of the reduction in accruals for curtailment firms relates to curtailments rather than conditionally conservative accounting.

4.4 Curtailments and the Basu coefficient

Our next set of analyses, presented in Table 6, examines whether firms that are engaging in curtailments have larger Basu coefficients. Panel A, Column (1) presents the results for the original Basu (1997) specification. Consistent with Basu (1997), the coefficient on D_t*RET_t (*coef.* = 0.341; *t* = 55.95) is positive and significant indicating that losses are expected to be less persistent than profits. However, we also observe a significant and negative coefficient on RET_t (*coef.* = -0.017; *t* = -8.30) which is inconsistent with Basu (1997), but consistent with more recent studies (e.g., Ruddock, Taylor, and Taylor 2006; Nikolaev 2010; Patatoukas and Thomas 2011; Lawrence et al. 2013). Columns (2) through (6) repeat the standard Basu regression, but replace earnings, the dependent variable, with each of the components of earnings that we examined in table 5. Column (2) indicates that using earnings before special items as the dependent variable results in a reduction in the Basu coefficient from 0.341 to 0.254. This result

suggests approximately 70% of the Basu coefficient cannot be attributed to special items associated with conditionally conservative accounting. It also corroborates our earlier finding in Table 1 that much of the lower persistence of losses does not appear to stem from conditionally conservative accounting. Column (3) indicates that the accrual component of earnings has a Basu coefficient of 0.184, consistent with Basu's (1997) original finding that accruals are the primary driver of the coefficient. However, Columns (4) and (5) indicate that the accrual coefficient is attributable to both conditionally conservative accruals (0.113) and other accruals (0.070). Moreover, Column (4) indicates that the cash flow component of earnings also has a significant Basu coefficient (0.121). Thus, it appears that factors other than conservative accounting contribute to the Basu coefficient.

Panel B of Table 6 investigates the role of curtailments in driving the Basu coefficient. These regressions essentially replicate the standard Basu regressions in Panel A but include an additional interaction for curtailments. To the extent that curtailments drive the Basu coefficient, the coefficient on D_t*RET_t should fall and the coefficient on $CURTAIL\_D_t$*D_t*RET_t should pick up the incremental impact of curtailments. The results in Column (1) are consistent with this prediction. The coefficient on D_t*RET_t drops 0.341 to 0.268 and the coefficient on *CURTAIL_*D_t*D_t*RET_t is a significantly positive 0.193 (t = 11.50). The results in Column (2) indicate that earnings before special items drive the majority of the coefficient on *CURTAIL_*D_t*D_t*RET_t. The results in Column (3) indicate that the impact of curtailments on the Basu coefficient operate primarily through the accrual component of earnings, while Columns (4) and (5) indicate that the impact of curtailments is split evenly between conditionally conservative accruals and other accruals. Finally, the results in Column (6) indicate that curtailments do not impact the Basu coefficient through the cash flow component of earnings.

Together, these results support hypotheses *H5*, *H5a*, *H5b* and *H5c*. The Basu coefficient is increasing in curtailments and this result can be attributed to earnings measured before special item and to both *conditionally conservative accruals* and *other accruals*. In summary, curtailments are an important determinant of the Basu coefficient that appears to be distinct from conditionally conservative accounting.

4.5 Curtailments as an omitted variable in prior research

Our last set of tests examine whether curtailments and their precipitating events offer an alternative explanation for a finding that has previously been attributed to conservatism. Specifically, we revisit the relation documented in LaFond and Watts (2008) between information asymmetry, proxied by a larger PIN score (PIN_t), and conservatism. We begin in Table 7, where we show that PIN_t is positively related to curtailments. Both $CURTAIL\_D_t$ and $DELIST_{t+1,t+3}$, are monotonically increasing in PIN_t quintiles. Figure 4 illustrates this relation graphically, indicating that high PIN firms have a much higher frequency of curtailments. This result is consistent with previous research showing that information asymmetry is higher in loss-making firms with more uncertain futures (Ertimur, 2004; Wittenberg-Moerman, 2008).

The regressions in Table 8 first replicate the findings of Lafond and Watts (2008) and then examine whether the results are robust to controlling for curtailments. Table 8, Column (1) replicates the original LaFond and Watts (2008) finding for the subsample of firms with data on PIN_t. Consistent with Lafond and Watts, the three-way interaction term $PIN_t*D_t*RET_t$ (*coef.* = 0.882; t = 5.88) is positive and statistically significant. Next, Column (2) of Table 8 follows Lawrence et al. (2013) by controlling for non-discretionary conservatism using the beginning of year book-to-market ratio (BTM_t). The coefficient on $PIN_t*D_t*RET_t$ decreases to 0.331, but is still significant at the five-percent level. Finally, Column (3) of Table 8 controls for the impact of

curtailments on the Basu coefficient. The coefficient on $PIN_t*D_t*RET_t$ further decreases to 0.261 and becomes statistically insignificant at conventional levels. It is also important to note that the coefficient for $CURTAIL\_D_t*D_t*RET_t$ in Table 8 (0.208) is little changed from its value in Table 6 (0.193). In other words, incorporating both information asymmetry variables and the curtailment variables leads to insignificance for the former, but has little impact on the latter. This evidence, which is consistent with *H6*, suggests that curtailment activities and their precipitating events cause increased information asymmetry resulting in a higher Basu coefficient. Overall, the preceding findings highlight that controlling for curtailments can significantly affect inferences in previous research regarding the determinants of discretionary conservatism.

5. Conclusion

We investigate the relative importance of curtailments versus conditional conservatism in causing the lower persistence of losses relative to profits. Our results indicate that curtailments are an important determinant of lower loss persistence. These results are perhaps unsurprising, as basic economic intuition suggests that business operations that are expected to generate persistent losses should be curtailed. Nevertheless, our paper provides the first direct examination of the impact of curtailments on earnings' persistence. We also show that curtailments typically involve the liquidation of working capital, resulting in negative working capital accruals.

Perhaps the most important contribution of our paper is in demonstrating that loss persistence and estimates thereof are not driven solely by conditionally conservative accounting. Beginning with Basu (1997), a large body of literature employs measures of asymmetric loss persistence to examine the determinants of conditional conservatism in financial reporting. This

literature identifies numerous determinants of conditional conservatism and claims that conditional conservatism has important real effects, such as lowering borrowing costs and improving operating efficiency. We demonstrate that curtailments are a potentially important correlated omitted variable in these studies. More generally, we highlight that common measures of 'conditional conservatism' and 'timely loss recognition' are, in fact, more general measures of low expected loss persistence. Prior findings that these measures are associated with lower borrowing costs and improved operating efficiency are therefore unsurprising, and attributing these benefits to conservative accounting is premature. Real activities, such as curtailments, provide an alternative explanation for these results.

Finally, our findings also have implications for other areas of accounting research, such as the determinants of accounting accruals. We find that loss making firms are more likely to curtail operations, leading to working capital liquidations and negative accruals. Ball and Shivakumar (2006) show that firms with bad economic news have asymmetrically lower accruals. They attribute this result to the asymmetric timeliness of loss recognition under conditionally conservative accounting. Curtailments offer an additional explanation for their findings. If firms can more abruptly curtail operations in response to losses than grow operations in response to profits, we would expect such a result. More generally, our paper highlights that accounting numbers are a function of both accounting conventions and real economic activities. It is important to consider both when modelling the properties of accounting numbers.

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APPENDIX

Variable Definitions

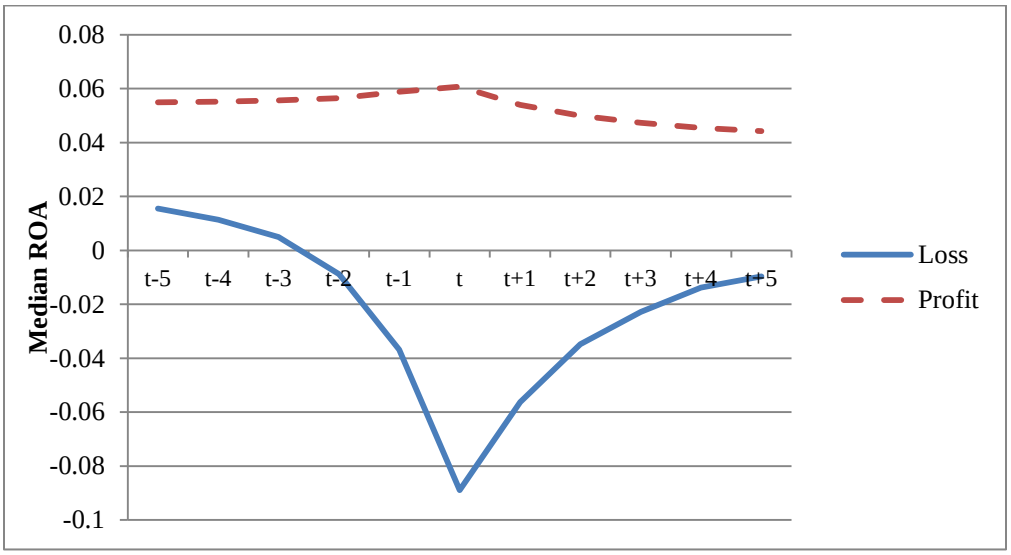
ΔEMP_t	=	Firm *i*'s number of employees as of fiscal *t* minus the number of employees as of fiscal *t-1* divided by total assets as of fiscal *t-1*'s year-end $(emp_t - emp_{t-1})/at_{t-1}$;
$\Delta SALE_t$	=	Firm *i*'s sales as of fiscal *t* minus sales as of fiscal *t-1* divided by total assets as of fiscal *t-1*'s year-end $(sale_t - sale_{t-1})/at_{t-1}$;
ACC_t/P_{t-1}	=	Firm *i*'s total accruals (income before extraordinary items and noncontrolling interest minus net cash flow from operating activities before extraordinary items and discontinued operations) for fiscal year *t* scaled by the number of common shares, divided by its price as of fiscal *t-1*'s year-end $(((ibc_t - oancf_t + xidoc_t)/cshpri_t))/prcc\_f_{t-1})$;
BTM_{t-1}	=	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 $(at_{t-1}/(csho_{t-1} * prcc\_f_{t-1} + at_{t-1} - ceq_{t-1}))$;
CFO_t/P_{t-1}	=	Firm *i*'s net cash flow from operating activities for fiscal year *t* minus extraordinary items and discontinued operations for fiscal year *t* scaled by the number of common shares, divided by its price as of fiscal *t-1*'s year-end $(((oancf_t - xidoc_t)/cshpri_t))/prcc\_f_{t-1})$;
CCA_t/P_{t-1}	=	Firm *i*'s funds from operations-other for fiscal year *t* scaled by the number of common shares, divided by its price as of fiscal *t-1*'s year-end $((-fopo_t/cshpri_t)/prcc\_f_{t-1})$;
$CURTAIL\_D_t$	=	"1" if firm *i*'s $EMPDEC_t$ and $SALEDEC_t$ equal one, "0" otherwise;
D_t	=	"1" if firm *i*'s RET_t is less than zero, "0" otherwise;
$DELIST_{t+1,t+3}$	=	"1" if firm *i* is delisted as result of liquidation in the next three years (delisting code in *CRSP*>=400 and <600), "0" otherwise;
E_t/P_{t-1}	=	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 $(epspx_t/prcc\_f_{t-1})$;
$EbSPI_t/P_{t-1}$	=	Firm *i*'s earnings per share excluding extraordinary items and special items for fiscal year *t* scaled by its price as of fiscal *t-1*'s year-end $(epspx_t - (spi_t/cshpri_t))/prcc\_f_{t-1})$;
$EMPDEC_t$	=	"1" if firm *i*'s number of employees for fiscal year *t* (emp_t) is less than its number of employees for fiscal year *t-1* (emp_{t-1}), "0" otherwise;
$LOSS_t$	=	"1" if firm *i*'s income before extraordinary items is less than zero (ib_t), "0" otherwise;
$LOSSbSPI_t$	=	"1" if firm *i*'s income before extraordinary items and special items is less than zero $(ib_t - spi_t)$, "0" otherwise;
OA_t/P_{t-1}	=	Firm *i*'s total accruals for fiscal year *t* minus funds from operations for fiscal year *t* scaled by the number of common shares, divided by its price as of fiscal *t-1*'s year-end $(((ibc_t - oancf_t + xidoc_t + fopo_t)/cshpri_t)/prcc\_f_{t-1})$;
PIN_t	=	Firm *i*'s probability of an information based trade for fiscal year *t*;
ROA_t	=	Firm *i*'s income before extraordinary items for fiscal year *t* divided by total assets as of fiscal *t-1*'s year-end (ib_t/at_{t-1});
ROA_{t+1}	=	Firm *i*'s income before extraordinary items for fiscal year *t+1* divided by total assets as of fiscal *t*'s year-end (ib_{t+1}/at_t);
ROA_T_t	=	Firm *i*'s income before extraordinary items for fiscal year *t* divided by total assets as of

		fiscal *t*'s year-end (ib_t/at_t);
$ROAbSPI_t$	=	Firm *i*'s income before extraordinary items and special items for fiscal year *t* divided by total assets as of fiscal *t-1*'s year-end ($(ib_t - spi_t)/at_{t-1}$);
$ROAbSPI_{t+1}$	=	Firm *i*'s income before extraordinary items and special items for fiscal year *t+1* divided by total assets as of fiscal *t*'s year-end ($(ib_{t+1} - spi_{t+1})/at_t$);
$ROAbSPI\_T_t$	=	Firm *i*'s income before extraordinary items and special items for fiscal year *t* divided by total assets as of fiscal *t*'s year-end ($(ib_t - spi_t)/at_t$);
RET_t	=	Firm *i*'s cumulative raw return beginning nine months before fiscal year-end *t* to three months after fiscal year-end *t*; and,
$SALEDEC_t$	=	"1" if firm *i*'s sales for fiscal year *t* ($sale_t$) is less than its sales for fiscal year *t-1* ($sale_{t-1}$), "0" otherwise.

FIGURE 1

Time Series of Median ROA for Loss and Profit Firms

Panel A: Time Series of Median ROA for Loss and Profit Firms



Panel B: Time Series of Median ROA for Loss and Profit Firms Conditioning on Curtailments

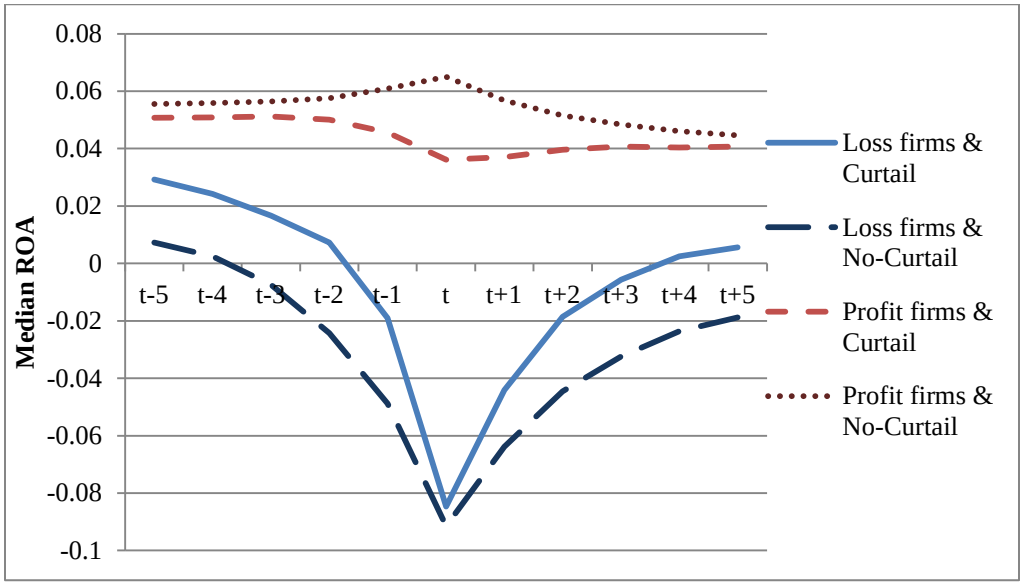


Figure 1 presents time series of median ROA from five years before the partition event to five years after. Panel A plots median ROA for loss and profit firms. Year *t* is the year in which firm-years have the loss or the profit. Panel B plots median ROA partitioned for loss and profit conditioning on curtailments. Year *t* is the year in which firm-years have the loss or profit and the curtailments.

FIGURE 2

Time Series of Median ROA for Negative and Positive Return Firms

Panel A: Time Series of Median ROA for Negative and Positive Return Firms

Panel B: Time Series of Median ROA for Negative and Positive Return Firms Conditioning on Curtailments

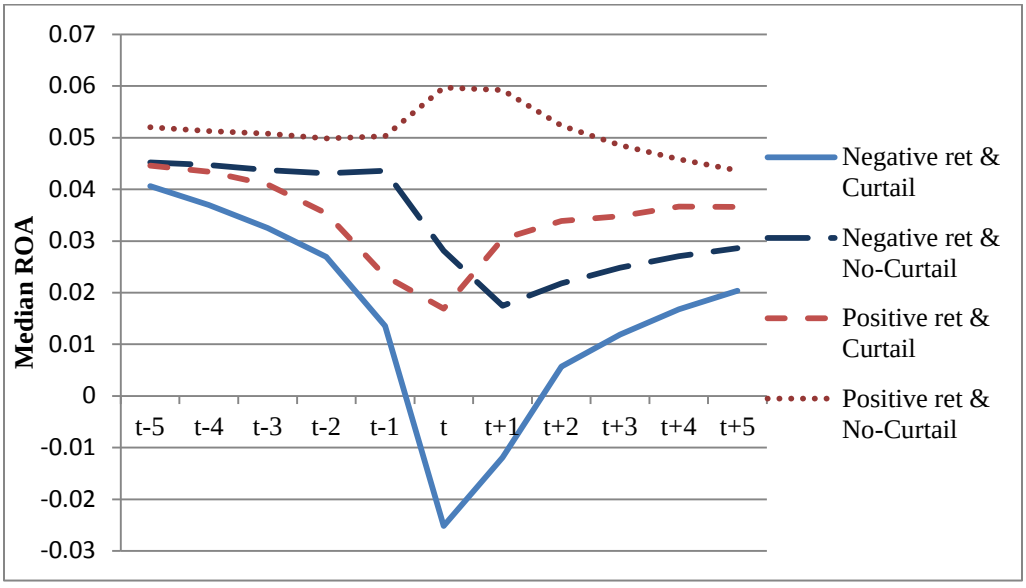
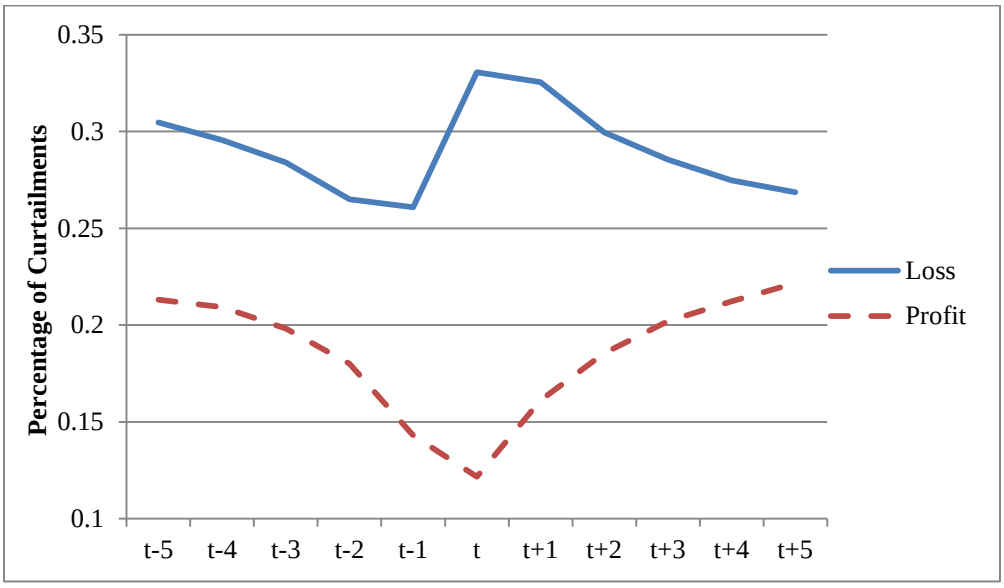


Figure 2 presents time series of median ROA from five years before the partition event to five years after. Panel A plots median ROA for negative and positive return firms. Year *t* is the year in which firm-years have the negative or positive returns. Panel B plots median ROA for negative and positive return firms conditioning on curtailments. Year *t* is the year in which firm-years have the negative or positive returns and the curtailments.

FIGURE 3

Time Series of Curtailments for Loss and Profit Firms

Panel A: Time Series of the Proportion of Curtailments for Loss and Profit Firms



Panel B: Time Series of Delistings for Loss and Profit Firms

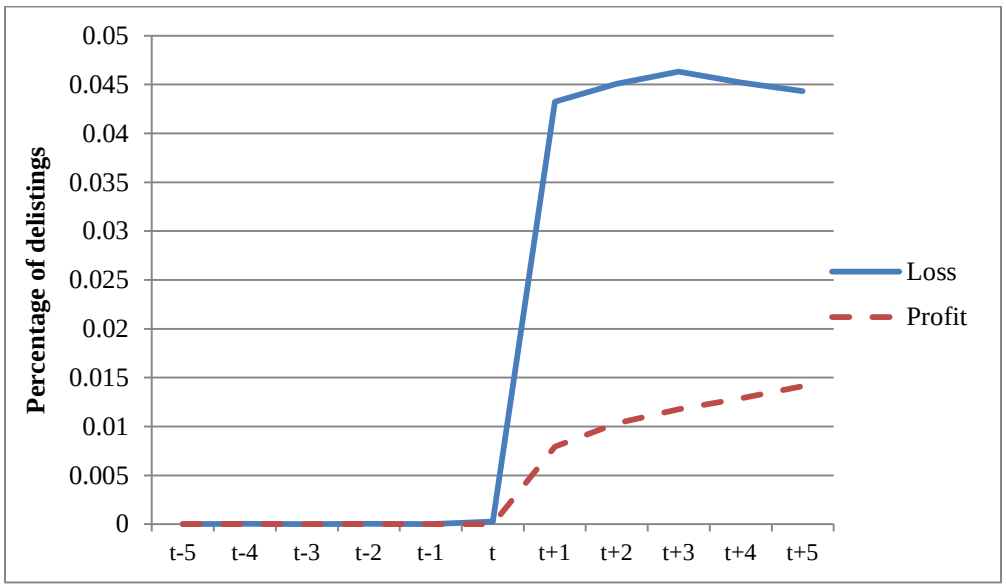


Figure 3 presents time series of two curtailment variables from five years before the loss or the profit to five years after. Panel A plots the proportion of curtailments for loss and profit firms. Year *t* is the year in which firm-years have the loss or the profit. Panel B plots the probability of delisting in the next three years for loss and profit firms. Year *t* is the year in which firm-years have the loss or the profit.

FIGURE 4

The Relation between PIN and the Proportion of Curtailments

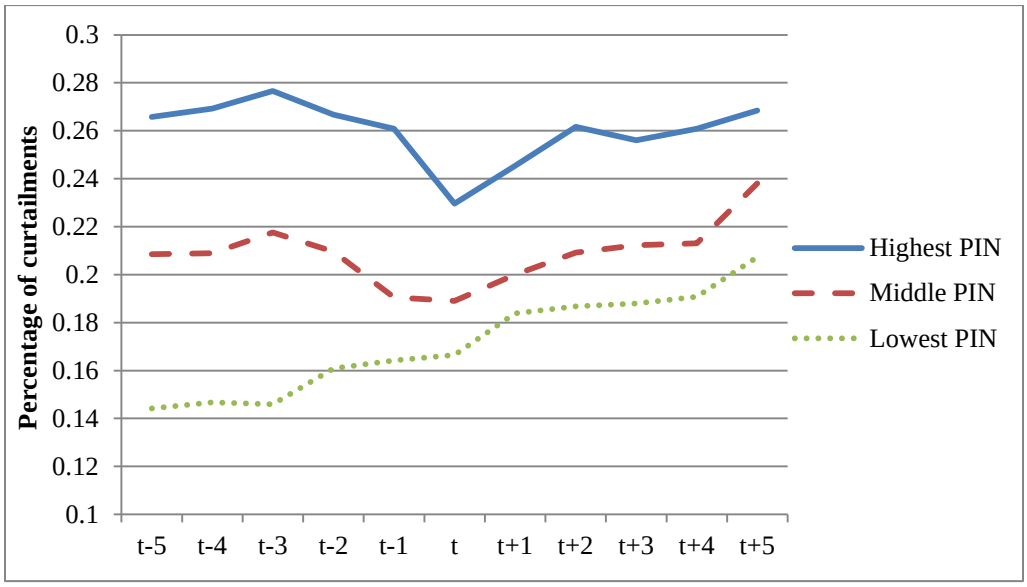


Figure 4 plots the relation between *PIN* and the proportion of curtailments. Year *t* is the year in which firm-years are sorted into quintiles using *PIN*. *Highest PIN* refers to observations in the fifth *PIN* quintile, *Middle PIN* refers to observations in the second to fourth *PIN* quintiles, and *Lowest PIN* refers to observations in the first *PIN* quintile.

TABLE 1

An Analysis of ROA Persistence

$$\boldsymbol{ROA_{i,t+1} = \alpha_0 + \alpha_1 ROA\_T_{i,t} + \alpha_2 LOSS_{i.t} + \alpha_3 ROA\_T_{i,t} * LOSS_{i,t} + \varepsilon_{i,t}}$$
$$\boldsymbol{ROAbSPI_{i,t+1} = \alpha_0 + \alpha_1 ROAbSPI\_T_{i,t} + \alpha_2 LOSSbSPI_{i.t} + \alpha_3 ROAbSPI\_T_{i,t} * LOSSbSPI_{i,t} + \varepsilon_{i,t}}$$
$$\boldsymbol{ROA_{i,t+1} = \alpha_0 + \alpha_1 ROA\_T_{i,t} + \alpha_2 D_{i.t} + \alpha_3 ROA\_T_{i,t} * D_{i,t} + \varepsilon_{i,t}}$$
$$\boldsymbol{ROAbSPI_{i,t+1} = \alpha_0 + \alpha_1 ROAbSPI\_T_{i,t} + \alpha_2 D_{i.t} + \alpha_3 ROAbSPI\_T_{i,t} * D_{i,t} + \varepsilon_{i,t}}$$

	Exp. Sign	(1) Dep.Var ROA_{t+1} Coef. (t-stat)	(2) Dep.Var $ROAbSPI_{t+1}$ Coef. (t-stat)	(3) Dep.Var ROA_{t+1} Coef. (t-stat)	(4) Dep.Var $ROAbSPI_{t+1}$ Coef. (t-stat)
Intercept		-0.003**	0.004**	0.017**	0.018**
		(-4.37)	(7.01)	(30.00)	(31.39)
ROA_T_t	+	0.923**		0.801**	
		(87.70)		(92.46)	
$ROAbSPI\_T_t$	+		0.915**		0.873**
			(97.17)		(104.11)
$LOSS_t$	-	-0.025**			
		(-19.18)			
$LOSSbSPI_t$	-		-0.016**		
			(-13.10)		
D_t	-			-0.031**	-0.022**
				(-41.18)	(-30.70)
$ROA\_T_t * LOSS_t$	-	-0.349**			
		(-27.12)			
$ROAbSPI\_T_t * LOSSbSPI_t$	-		-0.241**		
			(-19.41)		
$ROA\_T_t * D_t$	-			-0.189**	
				(-17.99)	
$ROAbSPI\_T_t * D_t$	-				-0.189**
					(-18.22)
Adj R^2		0.4547	0.531	0.4583	0.5387
N		135,031	135,031	135,031	135,031

This table presents an analysis of the ROA persistence of loss firms ($LOSS_t$) and negative return firms (D_t). *, ** indicate significance at the 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 2

Spearman and Pearson Correlation Matrix

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1	E_t/P_{t-1}	1	0.28	0.62	0.55	0.42	-0.60	-0.19	0.11	0.19	-0.18	-0.23	-0.22	-0.19
2	CFO_t/P_{t-1}	0.49	1	-0.58	-0.14	-0.63	-0.26	-0.16	-0.03	-0.04	0.04	**0.00**	0.01	-0.09
3	ACC_t/P_{t-1}	0.22	-0.60	1	0.58	0.87	-0.29	-0.03	0.12	0.19	-0.19	-0.19	-0.20	-0.09
4	CCA_t/P_{t-1}	0.25	-0.06	0.33	1	0.10	-0.28	-0.07	0.06	0.09	-0.12	-0.14	-0.14	-0.08
5	OA_t/P_{t-1}	0.11	-0.61	0.87	**0.00**	1	-0.19	**0.00**	0.11	0.18	-0.15	-0.15	-0.16	-0.06
6	$LOSS_t$	-0.79	-0.37	-0.27	-0.27	-0.14	1	0.24	-0.10	-0.20	0.19	0.27	0.23	0.18
7	D_t	-0.31	-0.22	**0.00**	-0.07	0.04	0.24	1	-0.05	-0.09	0.08	0.12	0.10	0.10
8	ΔEMP_t	0.16	-0.08	0.25	0.11	0.22	-0.19	-0.08	1	0.45	-0.37	-0.23	-0.27	-0.01
9	$\Delta SALE_t$	0.25	-0.03	0.26	0.12	0.22	-0.26	-0.12	0.56	1	-0.33	-0.52	-0.43	-0.02
10	$EMPDEC_t$	-0.16	0.05	-0.22	-0.10	-0.18	0.19	0.08	-0.83	-0.42	1	0.37	0.63	0.05
11	$SALEDEC_t$	-0.25	-0.03	-0.20	-0.12	-0.15	0.27	0.12	-0.41	-0.78	0.37	1	0.75	0.06
12	$CURTAIL\_D_t$	-0.22	**0.00**	-0.20	-0.12	-0.16	0.23	0.10	-0.56	-0.61	0.63	0.75	1	0.06
13	$DELIST_{t+1,t+3}$	-0.16	-0.11	-0.04	-0.06	-0.02	0.18	0.10	-0.05	-0.05	0.05	0.06	0.06	1

This table presents the correlation matrix for variables used in the accruals and cash flow analyses. The Spearman correlation coefficients are reported in the bottom left, and the Pearson correlation coefficients are reported in the top right. Only insignificant correlation coefficients ($p<0.05$) are highlighted. See the Appendix for variable definitions.

TABLE 3

Descriptive Statistics for Curtailments Variables

Panel A – Curtailments partitioned by losses and profits ($LOSS_t$)

	Loss obs.			Profit obs.						
Variable	N	Mean	Median	N	Mean	Median	Diff. in Mean	T-val	Diff. in Median	Z-val
ΔEMP_t	35,601	0.000	0.000	99,430	0.001	0.000	-0.001	-44.79	0.000	-72.00
$\Delta SALE_t$	35,601	0.021	0.001	99,430	0.179	0.104	-0.158	-81.63	-0.103	-103.48
$EMPDEC_t$	35,601	0.515	1.000	99,430	0.307	0.000	0.208	71.26	1.000	69.96
$SALEDEC_t$	35,601	0.477	0.000	99,430	0.196	0.000	0.281	106.84	0.000	102.60
$CURTAIL\_D_t$	35,601	0.331	0.000	99,430	0.122	0.000	0.209	91.40	0.000	88.699
$DELIST_{t+1,t+3}$	35,601	0.120	0.000	99,430	0.027	0.000	0.092	68.67	0.000	67.50

Panel B – Curtailments partitioned by pre-SPI loss and pre-SPI profit ($LOSSbSPI_t$)

	Pre-SPI Loss obs.			Pre-SPI Profit obs.						
Variable	N	Mean	Median	N	Mean	Median	Diff. in Mean	T-val	Diff. in Median	Z-val
ΔEMP_t	30,472	0.000	0.000	104,559	0.001	0.000	-0.001	-42.18	0.000	-65.17
$\Delta SALE_t$	30,472	0.014	0.000	104,559	0.174	0.100	-0.160	-78.11	-0.100	-97.29
$EMPDEC_t$	30,472	0.510	1.000	104,559	0.319	0.000	0.191	62.06	1.000	61.19
$SALEDEC_t$	30,472	0.485	0.000	104,559	0.208	0.000	0.277	99.21	0.000	95.78
$CURTAIL\_D_t$	30,472	0.331	0.000	104,559	0.132	0.000	0.199	81.93	0.000	79.96
$DELIST_{t+1,t+3}$	30,472	0.130	0.000	104,559	0.029	0.000	0.101	71.09	0.000	69.80

Panel C– Curtailments partitioned by negative and positive returns (D_t)

	Negative return obs.			Positive return obs.						
Variable	N	Mean	Median	N	Mean	Median	Diff. in Mean	T-val	Diff. in Median	Z-val
ΔEMP_t	60,289	0.000	0.000	74,742	0.001	0.000	-0.001	-22.72	0.000	-32.27
$\Delta SALE_t$	60,289	0.102	0.049	74,742	0.166	0.095	-0.064	-36.40	-0.046	-46.17
$EMPDEC_t$	60,289	0.406	0.000	74,742	0.327	0.000	0.079	29.97	0.000	29.87
$SALEDEC_t$	60,289	0.330	0.000	74,742	0.222	0.000	0.108	44.78	0.000	44.45
$CURTAIL\_D_t$	60,289	0.217	0.000	74,742	0.144	0.000	0.073	35.22	0.000	35.06
$DELIST_{t+1,t+3}$	60,289	0.077	0.000	74,742	0.031	0.000	0.046	37.79	0.000	37.59

This table presents the descriptive statistics for curtailment variables. Panel A provides descriptive statistics for curtailments partitioned by losses and profits. Panel B provides descriptive statistics for curtailments partitioned by pre-special item losses and pre-special item profits. Panel C provides descriptive statistics for firms partitioned by negative and positive returns. T-val refers to t-statistics obtained from two-sided tests of differences in means. Z-val refers to the z-statistics obtained from the Mann-Whitney tests of differences in medians. See the Appendix for variable definitions.

TABLE 4

Earnings Persistence and Curtailments for Loss Firms

$$\boldsymbol{ROA_{i,t+1} = \alpha_0 + \alpha_1 ROA\_T_{i,t} + \alpha_2 CURTAIL\_D_{i.t} + \alpha_3 ROA\_T_{i,t} * CURTAIL\_D_{i,t} + \varepsilon_{i,t}}$$

$$\boldsymbol{ROAbSPI_{i,t+1} = \alpha_0 + \alpha_1 ROAbSPI\_T_{i,t} + \alpha_2 CURTAIL\_D_{i.t} + \alpha_3 ROAbSPI\_T_{i,t} * CURTAIL\_D_{i,t} + \varepsilon_{i,t}}$$

	Exp. Sign	(1) Coef. (t-stat)	(2) Coef. (t-stat)
$DEP.VAR. =$		$ROA_{i,t+1}$	$ROAbSPI_{i,t+1}$
Intercept		-0.028**	-0.013**
		(-19.57)	(-12.12)
ROA_T_t	+	0.666**	
		(72.34)	
$ROAbSPI\_T_t$	+		0.751**
			(86.94)
$CURTAIL\_D_t$		0.002	0.006**
		(0.74)	(3.30)
$ROA\_T_t * CURTAIL\_D_t$	-	-0.247**	
		(-16.72)	
$ROAbSPI\_T_t * CURTAIL\_D_t$	-		-0.228**
			(-14.91)
Adj R^2		0.300	0.420
N		35,601	35,601

This table presents an analysis of the relation between earnings persistence and the curtailment variable $CURTAIL\_D_t$ for loss firms in year *t*. Regression (1) presents the results when earnings are defined as earnings before extraordinary items. Regression (2) presents the results when earnings are defined as earnings before extraordinary items and special items. *, ** indicate significance at the 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 5

Descriptive Statistics for Earnings Components Partitioned by Curtailments

Panel A – Earnings components partitioned by curtailments ($CURTAIL\_D_t$)

	$CURTAIL\_D_t$=1			$CURTAIL\_D_t$=0						
Variable	N	Mean	Median	N	Mean	Median	Diff. in Mean	T-val	Diff. in Median	Z-val
E_t/P_{t-1}	16,702	-0.104	-0.009	74,771	0.015	0.045	-0.119	-69.50	-0.054	-67.12
$EbSPI_t/P_{t-1}$	16,702	-0.050	0.016	74,771	0.031	0.052	-0.081	-57.04	-0.036	-54.08
ACC_t/P_{t-1}	16,702	-0.200	-0.096	74,771	-0.076	-0.038	-0.124	-61.08	-0.059	-60.56
CCA_t/P_{t-1}	16,702	-0.071	-0.013	74,771	-0.028	-0.005	-0.043	-42.34	-0.008	-35.71
OA_t/P_{t-1}	16,702	-0.129	-0.062	74,771	-0.048	-0.024	-0.081	-48.32	-0.038	-48.02
CFO_t/P_{t-1}	16,702	0.096	0.077	74,771	0.091	0.077	0.005	3.05	0.001	1.51

Panel B – Earnings components partitioned by future delistings ($DELIST_{t+1,t+3}$)

	$DELIST_{t+1,t+3}$=1			$DELIST_{t+1,t+3}$=0						
Variable	N	Mean	Median	N	Mean	Median	Diff. in Mean	T-val	Diff. in Median	Z-val
E_t/P_{t-1}	4,844	-0.168	-0.064	86,629	0.002	0.042	-0.170	-57.66	-0.105	-48.61
$EbSPI_t/P_{t-1}$	4,844	-0.114	-0.036	86,629	0.023	0.050	-0.137	-55.85	-0.086	-46.70
ACC_t/P_{t-1}	4,844	-0.187	-0.073	86,629	-0.094	-0.044	-0.093	-26.28	-0.029	-13.11
CCA_t/P_{t-1}	4,844	-0.078	-0.013	86,629	-0.034	-0.006	-0.044	-25.18	-0.007	-16.81
OA_t/P_{t-1}	4,844	-0.109	-0.038	86,629	-0.060	-0.029	-0.049	-16.81	-0.009	-5.56
CFO_t/P_{t-1}	4,844	0.019	0.007	86,629	0.096	0.079	-0.077	-26.76	-0.072	-33.41

This table presents the descriptive statistics of earnings components partitioned by $CURTAIL\_D_t$, and $DELIST_{t+1,t+3}$. Panel A provides descriptive statistics of earnings components for firms with both employee decrease and sales decreases and firms without both decreases. Panel B provides descriptive statistics of earnings components for firms with delistings in the next three years and firms without future delistings. T-val refers to the t-statistics obtained from two-sided tests of differences in means. Z-val refers to the z-statistics obtained from the Mann-Whitney tests of differences in medians. See the Appendix for variable definitions.

TABLE 6

Basu Regressions and Curtailments

$$\boldsymbol{DEP_{i,t} = \alpha_0 + \alpha_1 D_{i,t} + \alpha_2 RET_{i.t} + \alpha_3 D_{i,t} * RET_{i,t} + \varepsilon_{i,t}}$$

$$\boldsymbol{DEP_{i,t} = \alpha_0 + \alpha_1 D_{i,t} + \alpha_2 RET_{i.t} + \alpha_3 D_{i,t} * RET_{i,t} + \alpha_4 CURTAIL\_D_{i,t} + \alpha_5 CURTAIL\_D_{i,t} * D_{i,t} + \alpha_6 CURTAIL\_D_{i,t} * RET_{i,t} + \alpha_7 CURTAIL\_D_{i,t} * D_{i,t} * RET_{i,t} + \varepsilon_{i,t}}$$

$$\boldsymbol{DEP_{i,t} = E_t/P_{t-1}, EbSPI_t/P_{t-1}, ACC_t/P_{t-1}, CCA_t/P_{t-1}, OA_t/P_{t-1}, or\ CFO_t/P_{t-1}}$$

Panel A – Basu Regressions

	Exp. Sign	(1) Coef. (t-stat)	(2) Coef. (t-stat)	(3) Coef. (t-stat)	(4) Coef. (t-stat)	(5) Coef. (t-stat)	(6) Coef. (t-stat)
$Dep.Var =$		E_t/P_{t-1}	$EbSPI_t/P_{t-1}$	ACC_t/P_{t-1}	CCA_t/P_{t-1}	OA_t/P_{t-1}	CFO_t/P_{t-1}
Intercept		0.061**	0.075**	-0.078**	-0.022**	-0.056**	0.118**
		(52.71)	(79.23)	(-49.33)	(-36.33)	(-42.86)	(102.38)
D_t		-0.008**	-0.013**	0.022**	0.010**	0.012**	-0.019**
		(-3.86)	(-8.21)	(8.68)	(8.10)	(5.88)	(-10.36)
RET_t	+	-0.017**	-0.010**	-0.024**	-0.011**	-0.013**	0.005**
		(-8.30)	(-6.25)	(-9.11)	(-11.37)	(-6.23)	(2.76)
$\boldsymbol{D_t * RET_t}$	+	**0.341****	**0.254****	**0.184****	**0.113****	**0.070****	**0.121****
		(55.95)	**(54.60)**	**(25.88)**	**(28.71)**	**(13.20)**	**(27.40)**
Adj R^2		0.0899	0.0844	0.0167	0.0275	0.0042	0.0357
N		135,031	135,031	91,473	91,473	91,473	91,473

Panel B – Basu Regressions with Curtailments

	Exp. Sign	(1) Coef. (t-stat)	(2) Coef. (t-stat)	(3) Coef. (t-stat)	(4) Coef. (t-stat)	(5) Coef. (t-stat)	(6) Coef. (t-stat)
$Dep.Var =$		E_t/P_{t-1}	$EbSPI_t/P_{t-1}$	ACC_t/P_{t-1}	CCA_t/P_{t-1}	OA_t/P_{t-1}	CFO_t/P_{t-1}
Intercept		0.072**	0.082**	-0.066**	-0.018**	-0.048**	0.115**
		(67.8)	(93.19)	(-48.47)	(-32.58)	(-41.23)	(101.08)
D_t		-0.010**	-0.013**	0.019**	0.007**	0.012**	-0.019**
		(-5.52)	(-9.17)	(8.21)	(6.17)	(6.19)	(-10.24)
RET_t	+	-0.009**	-0.005**	-0.014**	-0.008**	-0.006**	0.004*
		(-4.97)	(-3.07)	(-6.52)	(-9.43)	(-3.35)	(2.10)
D_t*RET_t	+	**0.268****	**0.206****	**0.119****	**0.085****	**0.034****	**0.121****
		(46.06)	**(46.43)**	**(17.49)**	**(22.15)**	**(6.65)**	**(26.84)**
$CURTAIL\_D_t$		-0.080**	-0.056**	-0.085**	-0.026**	-0.059**	0.021**
		(-21.67)	(-18.29)	(-15.26)	(-11.21)	(-12.95)	(4.84)
$CURTAIL\_D_t$*D_t		0.004	-0.002	0.014	0.012**	0.002	-0.006
		(0.67)	(-0.48)	(1.69)	(2.86)	(0.35)	(-0.87)
$CURTAIL\_D_t$*RET_t		-0.040**	-0.030**	-0.051**	-0.013**	-0.039**	0.006
		(-7.43)	(-6.45)	(-6.13)	(-3.94)	(-5.72)	(0.97)
$CURTAIL\_D_t$*D_t*RET_t	+	**0.193****	**0.123****	**0.183****	**0.086****	**0.096****	**0.008**
		(11.50)	**(9.37)**	**(9.07)**	**(7.70)**	**(6.23)**	**(0.62)**
Adj R^2		0.1301	0.1141	0.0558	0.0445	0.0445	0.0445
N		135,031	135,031	91,473	91,473	91,473	91,473

This table presents an analysis of the relation between conservatism, as measured per Basu (1997), and the curtailment variable $CURTAIL\_D_t$. Panel A reports the results for the standard Basu regressions. Regressions (1)-(6) differ in the use of dependent variable in the Basu regression. Specifically, Regressions (1)-(6) use, as the dependent variable, earnings before extraordinary items per share divided by the price per share (E_t/P_{t-1})**,** earnings before extraordinary items and special items per share divided by the price per share ($EbSPI_t/P_{t-1}$)**,** accruals per share divided by the price per share (ACC_t/P_{t-1})**,** conditionally conservative accruals per share divided by the price per share (CCA_t/P_{t-1})**,** other accruals per share divided by the price per share (OA_t/P_{t-1})**,** cash flow per share divided by the price per share (CFO_t/P_{t-1}), respectively. Panel B reports the Basu Regression with the curtailment variable $CURTAIL\_D_t$. Regressions (1)-(6) differ in the use of dependent variable in the Basu regression. *, ** indicate significance at the 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 7

Mean Values of Curtailment Variables Sorted by PIN Quintiles

PIN Quintiles	N	PIN_t	$CURTAIL\_D_t$	$DELIST_{t+1,t+3}$
Lowest	6,132	0.114	0.167	0.009
2	6,147	0.153	0.177	0.014
3	6,144	0.187	0.194	0.023
4	6,147	0.240	0.196	0.042
Highest	6,137	0.413	0.230	0.066
Highest-Lowest		0.298	0.063	0.057
T-val		200.83	8.79	16.72
P-val		0.0001	0.0001	0.0001

This table presents the mean values of curtailment variables partitioned by *PIN* quintiles. Highest-Lowest refers to the mean difference between the highest *PIN* quintile and the lowest *PIN* quintile. T-val refers to the t-statistics obtained from two-sided tests of differences in means between the highest and the lowest *PIN* quintiles. See the Appendix for variable definitions.

TABLE 8

Basu Regressions and Information Asymmetry (PIN_t)

$$E/P_{i,t} = \alpha_0 + \alpha_1 D_{i,t} + \alpha_2 RET_{i,t} + \alpha_3 D_{i,t} * RET_{i,t} + \alpha_4 PIN_{i,t} + \alpha_5 PIN_{i,t} * D_{i,t} + \alpha_6 PIN_{i,t} * RET_{i,t} + \alpha_7 PIN_{i,t} * D_{i,t} * RET_{i,t} + \alpha_8 BTM_{i,t-1} + \alpha_9 BTM_{i,t-1} * D_{i,t} + \alpha_{10} BTM_{i,t-1} * RET_{i,t} + \alpha_{11} BTM_{i,t-1} * D_{i,t} * RET_{i,t} + \alpha_{12} CURTAIL\_D_{i,t} + \alpha_{13} CURTAIL\_D_{i,t} * D_{i,t} + \alpha_{14} CURTAIL\_D_{i,t} * RET_{i,t} + \alpha_{15} CURTAIL\_D_{i,t} * D_{i,t} * RET_{i,t} + \varepsilon_{i,t}$$

	Exp. Sign	(1) Coef. (t-stat)	(2) Coef. (t-stat)	(3) Coef. (t-stat)
Intercept		0.067**	0.070**	0.061**
		(13.11)	(10.76)	(9.42)
D_t		0.023*	0.028*	0.033*
		(2.49)	(2.11)	(2.54)
RET_t	+	-0.011	0.009	0.022
		(-0.74)	(0.55)	(1.39)
D_t*RET_t	+	0.244**	-0.191**	-0.221**
		(6.79)	(-4.48)	(-5.18)
PIN_t		-0.032	-0.023	-0.036
		(-1.61)	(-1.15)	(-1.73)
$PIN_t * D_t$		-0.066	-0.066	-0.057
		(-1.60)	(-1.58)	(-1.34)
$PIN_t * RET_t$		-0.050	-0.045	-0.032
		(-0.91)	(-0.84)	(-0.56)
$\boldsymbol{PIN_t * D_t * RET}$	**+**	**0.882****	**0.331***	**0.261**
		(5.88)	**(2.21)**	**(1.75)**
BTM_{t-1}			-0.006	0.017**
			(-0.73)	(2.00)
$BTM_{t-1} * D_t$			-0.003	-0.015
			(-0.13)	(-0.76)
$BTM_{t-1} * RET_t$			-0.025*	-0.025
			(-1.72)	(-1.61)
$BTM_{t-1} * D_t * RET$	+		0.781**	0.724**
			(12.31)	(11.05)
$CURTAIL\_D_t$				-0.056**
				(-8.00)
$CURTAIL\_D_t$*D_t				0.009
				(0.72)
$CURTAIL\_D_t$*RET_t				-0.067**
				(-4.16)
$\boldsymbol{CURTAIL\_D_t}$***$\boldsymbol{D_t}$***$\boldsymbol{RET_t}$**	**+**			**0.208****
				(4.94)

Adj R^2	0.1292	0.1745	0.2019
N	30,707	30,707	30,707

This table presents an analysis of the relation between conservatism, information asymmetry (PIN_t), beginning book-to-market ratio (BTM_{t-1}), and curtailments ($CURTAIL\_D_t$). *, ** indicate significance at the 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.