



The confounding effect of cost stickiness on conservatism estimates[☆]



Rajiv D. Banker^a, Sudipta Basu^{a,*}, Dmitri Byzalov^a, Janice Y.S. Chen^b

^a Fox School of Business, Temple University, Alter Hall, Philadelphia, PA 19122, United States

^b Eberhardt School of Business, University of the Pacific, Stockton, CA 95211, United States

ARTICLE INFO

Article history:

Received 4 November 2013

Received in revised form

25 June 2015

Accepted 2 July 2015

Available online 13 July 2015

JEL classification:

D21

D23

M40

M41

M46

Keywords:

Timely loss recognition

Omitted variable bias

Overinvestment

ABSTRACT

Sales decreases affect earnings more than sales increases because of cost stickiness. We hypothesize that this correlated omitted variable constitutes a confounding effect in standard asymmetric timeliness models. Controlling for a piecewise linear effect of sales changes in these models decreases the measured asymmetric timeliness significantly and changes inferences about the average level of conservatism and the extent of cross-sectional variation in conservatism. Validation tests confirm that the asymmetry for sales changes is consistent with sticky costs and is distinct from conditional conservatism. Future empirical research on conditional conservatism should recognize the potential confounding effect of sticky costs.

© 2015 Elsevier B.V. All rights reserved.

1. Introduction

Empirical research on conditional conservatism documents a piecewise linear relation between earnings and stock returns and often attributes this pattern to a more timely recognition of bad news than good news (e.g., Basu, 1997). However, we argue that a similar asymmetric relation can arise from a fundamentally different source—cost stickiness. Cost stickiness refers to the asymmetric response of costs to sales increases versus decreases, which is a widely documented finding in the research on cost behavior (e.g., Anderson et al., 2003). We show that cost stickiness can be mistaken for conditional conservatism in standard models, distorting inferences about both the average level of conservatism and the extent of cross-sectional variation in conservatism. To reduce the likelihood of spurious inference, we develop new empirical tests that separate conservatism from the confounding effect of sticky costs.

[☆] We thank Paul Hribar (the reviewer), Eric Press, Anup Srivastava, Lucas Threinen, and seminar participants at Michigan State University, New York University, Seoul National University, Southern Methodist University, Temple University, Indian School of Business Accounting Conference, Temple Accounting Conference, Yale Accounting Conference, AAA annual meeting, FARS midyear meeting, MAS midyear meeting, and the AAA Mid-Atlantic Region midyear meeting for helpful comments and suggestions. We especially thank John Core (the editor) for constructive and detailed advice in developing the paper.

* Corresponding author.

E-mail addresses: banker@temple.edu (R.D. Banker), sudiptab@temple.edu (S. Basu), dbyzalov@temple.edu (D. Byzalov), ychen@pacific.edu (J.Y.S. Chen).

Conditional conservatism implies that bad news (the usual proxy for which is negative stock returns) is recognized in earnings more quickly and more fully than good news (measured by positive returns). Therefore, the contemporaneous association between earnings and stock returns should be stronger for negative returns than for positive returns (Basu, 1997). Numerous studies find results consistent with this prediction and infer the presence of conditional conservatism (e.g., Pope and Walker, 1999; Ball et al., 2000; Watts, 2003b; Ball et al., 2013a).

The research on sticky costs documents an asymmetric behavior of costs and attributes it to operational decisions by managers who face adjustment costs, such as severance payments to dismissed workers and disposal costs for property, plant, and equipment (e.g., Anderson et al., 2003). To avoid adjustment costs, managers retain some unused resources when sales fall. By contrast, when sales rise, managers have to add sufficient resources to meet the demand. Because of this operational asymmetry, costs are “sticky” on average—they rise more in response to sales increases than they fall for sales decreases.

The cost asymmetry implies that, on average, earnings respond more to sales decreases than to sales increases. Because sales changes and concurrent stock returns are positively correlated, cost stickiness leads to an asymmetric relation between earnings and stock returns, which is stronger for negative returns than for positive returns. Therefore, the standard estimates of asymmetric timeliness are likely biased upwards on average when sticky costs are prevalent. Further, because cost stickiness varies systematically (e.g., Weiss, 2010), it leads to variation in the bias, which is likely to distort inferences about the extent of cross-sectional variation in conservatism. To control for this confounding effect, we incorporate cost stickiness in standard conservatism models.

We use data for publicly traded US firms from 1987 to 2007 to examine the confounding effect of cost stickiness in the Basu (1997), Ball et al. (2013b), and Collins et al. (2014) models.¹ Controlling for the asymmetric effect of sales changes reveals an average bias in conservatism estimates of more than 25%. Further tests confirm that the confounding asymmetry for sales changes is consistent with manifestations of cost stickiness and is distinct from conservatism. Thus, the upward bias in the standard conservatism measures arises because the measures mistake cost stickiness for conditional conservatism. We also find that controlling for the variation in cost stickiness has a large impact on estimates of the variation in conservatism. For example, the correlation between industry-level conservatism estimates (at the three-digit SIC level) with and without controls for cost stickiness is just 51.3%, and the difference between the two estimates is statistically significant in 49% of the industries. Thus, the use of standard models leads to mistaken inferences not only about the average degree of conservatism but also about how much conservatism varies cross-sectionally.

Cost stickiness also confounds inferences about the correlates of conservatism. For example, we find that the standard estimates of the association between managerial stock ownership and conditional conservatism contain a large bias. These estimates become statistically insignificant when we mitigate the bias. Controlling for cost stickiness also significantly changes the estimated effects of the standard proxies of the demand for conservatism, such as size, leverage, and the book-to-market ratio. Thus, recognizing the confounding effect of cost stickiness is essential to ensure accurate inferences in future research.

In Section 2, we develop our argument for the correlated omitted variable bias and formulate the hypotheses. In Section 3, we describe the data and the estimation models. Section 4 presents our main empirical results and the additional validation tests. Section 5 further illustrates the confounding effect of cost stickiness. Section 6 concludes.

2. Hypothesis development

We build on both the research on conservatism in financial accounting (e.g., Basu, 1997; Pope and Walker, 1999; Ball et al., 2000) and the research on sticky costs in cost accounting (e.g., Anderson et al., 2003; Weiss, 2010; Chen et al., 2012). Conservatism and sticky costs are fundamentally different phenomena: conservatism is asymmetry in the information system that translates economic activity into accounting data, whereas cost stickiness is asymmetry in the economic activity itself. Because the asymmetry in reported earnings can arise from either conservatism or cost stickiness, empirical models should account for both phenomena to ensure accurate inferences.

Financial accounting interprets conditional conservatism as the higher degree of verification of good news as gains than bad news as losses (Basu, 1997; Watts, 2003a). Conservatism implies that earnings incorporate bad news about future cash flows more quickly than good news. Basu (1997) bases his primary measure of asymmetric timeliness on a regression of net income on stock returns with separate slopes for positive and negative returns (proxies for good and bad news, respectively). He finds that the slope coefficient and the R^2 are higher for negative returns than for positive returns, which is consistent with his predictions. His model has been widely used to document the prevalence of conservatism, measured by average asymmetric timeliness, and to examine theories about the causes and correlates of conservatism, tested by analyzing systematic variation in asymmetric timeliness (see Watts (2003b) and Qiang (2007), for reviews).

The cost accounting literature (e.g., Anderson et al., 2003; Weiss, 2010; Banker et al., 2013; Banker and Byzalov, 2014) has identified another source of asymmetry in cost and earnings behavior. These studies document that most of the major cost components are “sticky” in the sense that they rise more for sales increases than they fall for equivalent decreases. Anderson et al. (2003) explain that cost stickiness arises because of deliberate decisions by managers to adjust resources. For many

¹ Although Dietrich et al. (2007), Givoly et al. (2007), and Patatoukas and Thomas (2011) critique the Basu (1997) asymmetric timeliness regression on economic and econometric grounds, the model is defended by Ryan (2006), Basu (2009), and Ball et al. (2013a, b). Our economic concerns are valid in modified models as well. We analyze the most commonly used asymmetric timeliness regressions to develop deeper insights into the existing results.

Download English Version:

<https://daneshyari.com/en/article/5086565>

Download Persian Version:

<https://daneshyari.com/article/5086565>

[Daneshyari.com](https://daneshyari.com)