Journal of Accounting and Economics 64 (2017) 167–182

Contents lists available at ScienceDirect

Journal of Accounting and Economics

journal homepage: www.elsevier.com/locate/jacceco

When does the bond price reaction to earnings announcements predict future stock returns?☆

Omri Even-Tov

Haas School of Business, University of California at Berkeley, United States

ARTICLE INFO

Article history:
Received 23 May 2015
Revised 11 May 2017
Accepted 23 May 2017
Available online 15 July 2017

Keywords:
Post-announcement stock returns
Earnings announcements
Bond prices
Anomalies
Sophisticated investors

ABSTRACT

In this paper I show that the bond price reaction to earnings announcements has predictive power for post-announcement stock returns and that this predictive ability is driven by the bonds of non-investment grade firms. I find that bonds' predictive ability is more pronounced in firms that have a lower level of institutional shareholder ownership and whose bonds are more liquid. This paper enhances our understanding of the relation between the stock and bond markets and complements the literature which documents whether, and under what circumstances, various accounting-based measures and financial statement components predict post-announcement stock returns.

1. Introduction

The information contained in earnings announcements plays an important role in the determination of stock prices. Despite its importance, numerous studies show that stock prices do not immediately and fully incorporate all of the information in earnings announcements and that various accounting-based measures and financial statement components have the ability to predict future stock prices.[1] Among the reasons offered for these apparent inefficiencies are limits on investor attention, which lead investors to focus on subsets of information, and investors' inability to fully understand the complexities of the information contained in earnings reports (e.g., Bartov et al., 2000; Hirshleifer et al., 2011; Doyle et al., 2006; DellaVigna and Pollet, 2009; You and Zhang, 2009).

Prior research has shown that bond prices, like stock prices, react to earnings news.[2] This literature, though, does not examine whether corporate bonds incorporate earnings news more efficiently than stocks. The reason why they might is that the bond market is more heavily dominated by sophisticated investors than is the stock market (Bessembinder et al., 2009; De Franco et al., 2009; Ronen and Zhou, 2013). These investors have greater resources at their disposal to analyze earnings reports and are arguably less constrained than are individual investors by either limited attention or difficulties in interpreting the information in earnings announcements. This is supported by Bartov et al. (2000) and Doyle et al. (2006) who

☆ This paper is based on my dissertation completed at UCLA. I am indebted to the members of my dissertation committee: David Aboody, Jack Hughes, Bugra Ozel, and Brett Trueman, for their guidance on this paper. I also appreciate the helpful comments of an anonymous referee, S.P. Kothari (editor), Patricia Dechow, Henry Friedman, Carla Hayn, Reuven Lehavy, Beatrice Michaeli, Panos Patatoukas, Richard Sloan, and Suhas Sridharan. I also wish to thank seminar participants at New York University, Stanford University, the University of California, Berkeley, the University of California, Davis, the University of California, Irvine, UCLA, and the University of Utah. Any remaining errors are my own.

E-mail address: omri_eventov@haas.berkeley.edu

[1] See, for example, Sloan (1996), Bernard and Thomas (1990), Collins and Hribar (2000), and Balakrishnan, Bartov, and Faurel (2010).

[2] Datta and Dhillon (1993) and Defond and Zhang (2014) both show that there is a significant bond price reaction to the news in earnings releases.

http://dx.doi.org/10.1016/j.jacceco.2017.05.002
0165-4101/

show that greater sophisticated investor presence enhances the ability of share prices to quickly incorporate the information contained in earnings announcements and to mitigate the post-earnings announcement drift. Consistent with this, Campbell et al. (2009) show that institutions trade aggressively to exploit the post-earnings announcement drift. These results suggest that if sophisticated investors are more dominant in the bond market than in the stock market, then earnings news would be incorporated more quickly into bond prices than into stock prices. Consequently, the bond price reaction to earnings announcements would, similar to a number of accounting-based measures, have predictive power for future stock returns.

Counterbalancing this is the fact that bonds are typically less liquid and less actively traded than stocks.[3] Lower levels of liquidity could lead to an increase in the cost of trading and a reduction in the speed with which sophisticated bond investors trade to their new positions, reducing the relative efficiency of the bond market. For the equity market, the link between liquidity and the speed of price adjustment has been well documented. For example, Chordia et al. (2008) show that return predictability diminishes in the presence of greater liquidity, while Bhushan (1994) finds liquidity to be inversely related to the magnitude of the post-earnings announcement drift. Evidence for a link between liquidity and bond market efficiency is reported in Ronen and Zhou (2013). If lower levels of liquidity in the bond market impede the efficiency of bonds prices, then the ability of bond returns to predict post-announcement stock returns may be restricted to firms whose bonds are more liquid. Testing whether, and under what circumstances, the bond price reaction to earnings announcements has predictive power for future stock returns is the central focus of this study.

For my tests I use the *TRACE* database to calculate raw and abnormal bond returns around 19,518 quarterly earnings announcements of 770 unique firms between the years 2005 and 2014. As a first step in my analysis I partition firms each quarter into deciles according to the bond price reaction to that quarter's earnings announcement. For a firm with multiple bonds, the firm's bond price reaction is the value-weighted average of the firm's individual bond returns. For each decile I then calculate the average buy-and-hold abnormal stock return over the 60 days subsequent to an earnings announcement. For the decile with the highest raw (abnormal) bond price reactions, the average buy-and-hold abnormal stock return is 1.07 (1.11) percent. This compares to −1.70 (−0.96) percent for the lowest decile. The difference of 2.77 (2.08) percentage points is significantly positive and provides preliminary evidence that the reaction of a firm's bonds to its earnings announcements has predictive power for the firm's post-announcement stock return.

Next, I test whether bonds' predictive ability is stronger in bonds of non-investment grade firms than for those of investment-grade firms. I conjecture that this will be true because bonds of investment-grade firms are in little danger of default, and so earnings news is unlikely to have much of an effect on their prices. In contrast, the prices of bonds of non-investment grade firms, which are riskier, should be more sensitive to earnings information. This is consistent with existing empirical evidence that the price sensitivity to firm-specific information is greater for non-investment grade bonds than for investment-grade bonds (e.g., Easton et al., 2009 and Defond and Zhang, 2014).

Applying the same univariate analysis above, I find that the difference between the average buy-and-hold abnormal stock returns of the highest and lowest raw (abnormal) bond return deciles of the bonds of non-investment grade firms is a positive and significant 7.49 (6.35) percentage points, while it is insignificant for the subsample of bonds of investment-grade firms. These results suggest that the ability of bond returns to predict stock prices comes exclusively from the bonds of non-investment firms, consistent with my conjecture. Moreover, these results also show that, within non-investment grade firms, the predictive ability is driven mostly by bonds that have a negative price reaction to earnings announcements, consistent with bond investors being more sensitive to downside risk.

I next test whether the ability of the bond price reaction to earnings announcements is *incremental* to that of unexpected earnings and accruals. To do so, I first sort my sample into quintiles according to standardized unexpected earnings (*SUE)* every quarter. Within each of these quintiles, I again sort into quintiles based on the bond price reaction. I find that for the lowest *SUE* quintile the difference between the 60-day average buy-and-hold abnormal stock return of the highest and lowest quintile of the raw (abnormal) bond price reaction is a significant 2.95 (2.55) percentage points. The difference is a significant 2.64 (2.01) percentage points for the highest *SUE* quintile. These results provide evidence that the predictive ability of the bond price reaction to earnings announcements for future stock prices is incremental to that of unexpected earnings.

Separately analyzing the investment-grade and non-investment grade firm subsamples shows that bonds' incremental predictive ability over unexpected earnings is driven by the subsample of non-investment grade firms, consistent with the prior univariate results. Focusing on the subsample of non-investment grade firms, we see that in the lowest *SUE* quintile, where we would expect negative future stock returns, the mean return is actually positive when the bond price reaction to the earnings announcement is high. Similarly, in the highest *SUE* quintile, where we would expect future stock returns to be positive, the mean stock return is actually negative when the bond price reaction to the earnings announcement is low. In these cases, the bond price reaction, not the *SUE*, predicts the sign of the future stock return.

Next, I repeat the previous analysis using accruals, rather than unexpected earnings, as the initial partitioning variable. I find that for the lowest *Accruals* quintile the difference between the 60-day average buy-and-hold abnormal stock return of the highest and lowest quintile of the raw (abnormal) bond price reaction is a significant 3.30 (3.76) percentage points. The difference is a significant 2.19 (1.71) percentage points for the highest *Accruals* quintile. These results provide evidence

[3] While the bond market appears to be less liquid than the stock market, several recent papers provide evidence of an increase in the level of bond trading and liquidity, especially among large investors, around earnings announcements (e.g., Easton, Monahan, and Vasvari, 2009, and Ronen and Zhou, 2013). I provide evidence of this in my sample in Table 1, which I discuss in Section 3.