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Fair value accounting and analyst forecast accuracy☆

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ABSTRACT

This study examines the effect of fair value accounting on the behavior of analysts using a large, generalizable sample of U.S. firms. By employing a measure of firms' fair value intensity, we provide evidence showing that firms with higher fair value intensity have more accurate analyst earnings forecasts, a significant main effect elusive to Magnan, Menini, and Parbonetti (2015). Furthermore, by using disclosures required by Statement of Financial Accounting Standards (SFAS) No. 157, we find significant positive associations between analyst forecast accuracy and Level 1 and Level 2 fair value measurements, but we do not find such association for Level 3 measurements. We document that these main effects are predominantly concentrated in non-financial industry firms in contrast to financial industry firms. This suggests that qualitative features of fair value measurements, including their business purpose and on-average accounting treatment (e.g., trading assets, available for sale, etc.), could also have an impact on analyst forecasting accuracy beyond mere measurement issues. Our results contribute to the debate over fair value accounting by showing the impact of fair value accounting upon an important participant in the capital markets.

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I. Introduction

We examine whether fair value measurements enhance analysts' forecasting accuracy.[1] Fair value measurements may augment forecasting, providing more timely data than historical cost measurements. However, such measurements may lack reliability and the presence of fair value items may increase the volatility of earnings, making the forecasting task more difficult. Prior studies have provided some evidence on the relationships between fair value measurements, firm value, and cost of capital, suggesting that these measurements are relevant to investors and creditors (Arora, Richardson, & Tuna, 2014; Song, Thomas, & Yi, 2010; Riedl & Serafeim, 2011; Goh, Li, Ng, & Ow Yong, 2015; Barth, 1994; Barth, Beaver, & Landsman, 1996; Barth, Hodder, & Stubben, 2008; Barth & Taylor, 2010; Barth, Ormazabal, & Taylor, 2012; Blankespoor, Linsmeier, Petroni, & Shakespeare, 2013; Graham, Lefanowicz, & Petroni, 2003; Carroll, Linsmeier, & Petroni, 2003; Venkatachalam, 1996). Yet, limited evidence exists on the relationship between fair value measurements and the accuracy of analyst earnings forecasts (see Magnan et al., 2015). We expand research in this area by examining the relationship between fair value measurements and analysts' information environment using a sample that includes financial and non-financial firms and comparing the relevance of these measurements in times of economic stability versus times of economic distress.

Developing a comprehensive understanding of the usefulness of fair value measurements is important as it can inform accounting standard setters and regulators on this issue. Over the past 25 years, the Financial Accounting Standards Board (FASB) has expanded the use of fair value measurements to include items such as derivatives and hedges, employee stock options, financial assets, and goodwill impairment testing. A significant standard in this area was Statement of Financial Accounting Standards (SFAS) No. 157, *Fair Value Measurements*. SFAS No. 157 established a framework of fair value measurement and required fair value measurements to be disclosed by levels (Level 1, 2, and 3), with Level 1 having the highest measurement certainty and Level 3 having the lowest level of measurement certainty Because Level 3 measurements inputs that are often not observable by investors, they are subject to greater estimation errors and biases, potentially causing them to be less reliable and create more severe information asymmetry between mangers and investors.[2]

Our study joins research streams that investigate both the usefulness of fair value measurements and the information used in the formation of analyst earnings forecasts. Analytical studies of analysts' behaviors provide models that illustrate the relation between information quality and

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[1] Analyst accuracy appears fairly consistent in seminal papers that analyze analyst forecasting abilities (Butler & Lang, 1991; Sinha, Brown, & Das, 1997; Clement, 1999; Mikhail, Walther, & Willis, 1997; Dhaliwal, Radhakrishnan, Tsang, & Yang, 2012). As a result, we primarily focus on analyst forecast accuracy in this study.

[2] Consistent with this intuition, prior literature (Petroni & Wahlen, 1995; Carroll et al., 2003; Song et al., 2010) documents that investors attribute more perceived value to Levels 1 and 2 fair value measurements than Level 3 fair value measurements.

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the characteristics of earnings forecasts (Diamond, 1985; Kim & Verrecchia, 1997; Barron, Kim, Lim, & Stevens, 1998). These studies suggest that more useful disclosures result in more accurate and less disperse earnings forecasts. Building upon these analytical models, empirical studies have employed the characteristics of analyst forecasts as a proxy for the quality of measurements (see, for example, Byard, Li, & Yu, 2011). We expand these studies by exploring the impact of fair value measurements across firms of different types under different economic conditions.

Fair value measurments may positively impact analysts' information environment as they provide timely and relevant information, which allows analysts to tether their expectations of earnings to overall movements in variables (e.g., macroeconomic variables such as interest rates) that affect the performance and pricing of assets, enhancing the analysts' ability to make accurate forecasts, as well as increasing consistency of forecasts across analysts. Analyzing text of conference calls and analysts' reports, Bischof, Daske, and Sextroh (2014) find that analysts devote a considerable amount of attention to fair value measurements. Furthermore, Bratten, Causholli, and Khan (2016) show that certain fair market measurements made by banks predict future financial performance. This finding provides some rationale for the interest in fair value measure among analysts found by Bischof et al. (2014). The Chartered Financial Analyst (CFA) Institute has been supportive of fair value accounting, arguing that it provides useful information to analysts (Magnan et al., 2015).

Alternatively, certain fair value measurements may cause increased volatility in earnings, enhanced opportunities for management discretion in financial reporting, and additional complexity to the forecasting process. Prior research has documented that the use of fair values measures increases the volatility of earning in banks (Barth, Landsman, & Wahlen, 1995). These issues associated with fair value accounting may lead to less accurate forecasts. In addition, incorporating fair value measurements into financial statements requires significant investment in systems used to capture, estimate, and record fair value disclosures (PwC, 2013[3]).

Our study contributes to the limited research examining the relationship between fair value measurements and analysts' forecasting outcomes. Recent research by Magnan et al. (2015) finds some early, but not conclusive, evidence on the relationship between fair value measurements and analyst forecasting. We build on this early evidence and provide a more comprehensive analysis of the relationship between analysts' forecast accuracy and fair value measurements. Our study contributes to this line of research by examining the impact of fair value measurements on analysts' forecast accuracies using a broader sample of firms and a broader range of years following the financial crisis.[4] Both financial and non-financial firms commonly employ different levels and types of assets and liabilities subject to fair value accounting standards. We believe that the examination of non-banks results in a more generalizable analysis and permits us to focus more extensively on the levels of disclosures as defined in SFAS No. 157.

In addition to using a broader sample of firms, we extend Magnan et al. (2015) by examining the impact of fair value measurements on analysts' forecasting in times of economic stability and growth versus times of economic instability.[5] Many would argue that fair value measurements are most useful in volatile economic times when the correlation between historical cost and fair market value may decline. The 2007–2009 financial crisis reignited vigorous debate regarding fair value accounting among standard setters, regulators, politicians, academics, and the general business community.[6] Proponents of fair value accounting (comment letters by the Center for Audit quality, the CFA Institute, the Council of Institutional Investors, and the Consumer Federation of America, 2008[7]) argue that it provides more timely and value-relevant information to market participants than do other alternative accounting approaches (i.e., historical cost accounting). In contrast, opponents argue that fair value accounting has made companies' financial information less reliable and less comparable. For example, William Isaac, a former Chairman of the Federal Deposit Insurance Corporation (FDIC), when speaking about fair value accounting, said, "There is nothing fair about a system that is transparently wrong. It has been senselessly destructive of bank capital."[8] During and after the peak of the financial crisis in 2008, the Securities and Exchange Commission (SEC) was urged by many prominent figures in finance and politics to suspend fair value accounting.[9] Recent academic research provides conflicting evidence on the impact of fair value measurements on the financial crisis (Barth & Landsman, 2010; De Jager, 2014). Given this lack of consensus among academics and market participants on the usefulness of fair value disclosures during the financial crisis, we believe that a better understanding of the relevance of fair value measurements under different economic conditions has meaningful policy implications.

Our analysis employs a large, generalizable sample of firm-years from all industries between 2007 and 2013. In the first series of tests, we examine the relation between aggregate fair market measurements and the analysts' forecast accuracy. By using the proportion of fair value assets and liabilities to total assets as our measure of fair value intensity, we find a significant positive association between fair value intensity and analysts' forecast accuracies after controlling for other firm characteristics that affect analyst forecasts. Specifically, forecast accuracy is increased with more extensive fair value measurements. This main effect was elusive to Magnan et al. (2015). This finding initially suggests that fair value accounting enhances analysts' forecasting abilities.

In the second series of tests, we investigate whether SFAS No. 157 fair value measurements (i.e., Levels 1, 2, and 3) have differential impacts upon forecast outcomes. Interestingly, we find significant positive associations between analyst forecast accuracy and Levels 1 and 2 measurements, while we find no evidence of a relation for Level 3 measurements. These results differ significantly from those of Magnan et al. (2015), as they only find an effect with Level 2 measurements. These results initially suggest that the more reliable Levels 1 and 2 measurements enhance the accuracy of analysts' forecasts.

We further bifurcate our sample and tests between financial industry and non-financial industry firms. Our results suggest that the predominant drivers of our results for analyst accuracy are non-financial industry firms. We posit that these findings may be driven by qualitative differences in the accounting treatment, use, or purposes of these measurements between financial and non-financial industries. We find anecdotal evidence that financial industry firms are more likely to classify their fair value measurements as trading assets, which, in theory, would induce further volatility in operating earnings. Differences in accounting treatment by the two large industry groupings likely result in differing levels of inherent complexity around the forecasting task of analysts.

We further find that the financial crisis had a dramatic impact on fair value measurements upon forecast accuracy for financial industry firms, a notion suggested by Magnan et al. (2015). Specifically using our sample of financial firms, we find that fair value measurements are

[3] https://www.pwc.com/us/en/tax-accounting-services/newsletters/tax-accounting/assets/pwc-fair-value-accounting-march-2013.pdf.

[4] Magnan et al. (2015) examine the relationship between fair value disclosures of banks (as required by the FR Y-9C) and analyst earnings forecasts. No significant main effect regarding the impact of fair value measurements upon forecast accuracy was identified in the main analysis, but they do find that the relation changed with the advent of SFAS No. 157 in 2007.

[5] Magnan et al.'s (2015) sample ends in 2009, at the height of the financial crisis.

[6] Forbes "The Great Fair-Value Debate" http://www.forbes.com/2009/08/19/mark-market-accounting-leadership-governance-directorship.html; Harvard Business Review, "Is it fair to blame fair value accounting for the financial crisis?" https://hbr.org/2009/11/is-it-fair-to-blame-fair-value-accounting-for-the-financial-crisis; etc.

[7] Joint comment letter on fair value: http://thecaq.org/policy/fair-value-accounting.

[8] Transcript of Mark to Market Accounting Roundtable https://www.sec.gov/spotlight/fairvalue/marktomarket/mtmtranscript102908.pdf.

[9] Transcript of Mark to Market Accounting Roundtable https://www.sec.gov/spotlight/fairvalue/marktomarket/mtmtranscript102908.pdf.

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