Line-Item Analysis of Earnings Quality

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Abstract

In this paper, we discuss earnings quality and the related concept of earnings management, focusing on the primary financial accounts. For each key line-item from the financial statements, we summarize accounting and economic considerations applicable to that item, discuss implications for earnings quality, evaluate the susceptibility of the item to manipulation, and identify potential red flags. The red flags and specific issues discussed for the individual line-items provide a framework for fundamental and contextual analysis by academic researchers and practitioners.

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Contents

1	Introduction	1
2	Overview of Earnings Quality	5
3	Overview of Earnings Management	11
4	Revenue	23
5	Accounts Receivable	41
6	Inventory	49
7	Property, Plant and Equipment	61
8	Intangible Assets	73
9	Investments in Debt Securities	81
10	Debt	85

11 Leases	89
12 Income Taxes	93
13 Pension and Other Post-Retirement Benefits	101
14 Contingencies	107
15 Other Liabilities	111
16 Derivatives	115
17 Investment in Equity Securities and Variable Interest Entities	121
18 Shareholders' Equity	129
19 Concluding Comments	139
References	141

1

Introduction

Baruch Lev, in his influential 1989 critique of empirical research on the usefulness of accounting earnings, argued that the generally low \mathbb{R}^2 values in market-based tests of earnings quality were disconcerting and implying limited usefulness of accounting earnings. Lev suggested that capital market research in accounting should shift its focus to the examination of the role of accounting measurement rules in asset valuation. He further suggested that a promising direction for future research is to examine earnings quality account-by-account.¹

In the last 20 years, a number of studies have employed fundamental and contextual analyses in an attempt to improve our understanding of the usefulness of earnings and other accounting variables. Two of the earlier attempts were Bernard and Stober (1989) and Bernard and Noel (1991). Both studied the incremental usefulness of working capital accounts. Bernard and Stober (1989) investigated the ability of inventory and account receivable balances to predict future sales. Bernard and Noel (1991) examined alternative economic models of the

¹ A similar recommendation was made by Penman (1992), who called for concentrated accounting research aimed at studying "fundamentals" — that is, key value-drivers such as components of earnings, risk, growth, and competitive position.

2 Introduction

production-inventory cycle and their implications for using inventory disclosures to predict future sales and future earnings. Results were generally null or "mixed" at best. Bernard and Stober (1989) concluded that further progress in this line of research would require a better understanding of the economic context in which the implications of detailed earnings components are interpreted. They also suggested that any research based on short-run association tests would require better knowledge of the process by which information is transmitted from firms to the public.

Another notable attempt at fundamental analysis was made by Lev and Thiagarajan (1993). Lev and Thiagarajan identified a set of financial variables (fundamentals) claimed by analysts to be useful in security valuation and examined these claims by estimating the incremental value-relevance of these variables over earnings. Their findings support the incremental value-relevance of most of the identified fundamentals. Indeed, looking at data from the 1980s, fundamentals added about 70% to the explanatory power of earnings with respect to excess returns. A follow-up on this study by Abarbanell and Bushee (1997) found somewhat weaker results. Specifically, the associations between the individual signals and future earnings changes were insignificant for many of the fundamental signals identified by Lev and Thiagarajan. Lev and Zarowin (1999) reexamined the usefulness of reported earnings and other financial variables and found that it has deteriorated during the period 1977 to 1996. They attributed the deterioration to the increase in the level of change experienced by companies during the period.²

Assessing the fundamental analysis literature over the last two decades, many of the results are either null or mixed. As suggested by many researchers, including the above authors, fundamental analyses are difficult because the relation between earnings and returns is too highly contextual to model parsimoniously. One grim speculation articulated by Bernard and Stober was that, "it is possible that the links between detailed earnings components and valuation are so highly contextual that no parsimonious model would ever capture more than

 $^{^2}$ Another possible explanation might be an increase in earnings management and manipulation during that period as management rewards for improved financial performance have grown.

a small portion of the story" (1989, p. 648). With the benefit of the last 20 years of fundamental analysis research, Bernard and Stober's cautionary note seems even more profound today.

3

In this paper, we present a comprehensive summary and analysis of the specific earnings quality issues pertaining to key line-item components of the financial statements. After providing an overview of earnings quality (Section 2) and earnings management (Section 3), we turn to the analysis of the key line-items from the financial statements (Section 4 through Section 18). For each key line-item, we review accounting principles, discuss implications for earnings quality, evaluate the susceptibility of the item to manipulation, and describe analyses and red flags which may inform on the item's quality. We hope that our analysis and evaluations will prove useful in conducting fundamental and contextual analyses.

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