Business Cycle and Accounting Behavior

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Abstract
This paper investigates the influence of the business cycle on firm-level accounting measures. We focus on four measures of performance (sales growth, changes in profit margin, income before extraordinary items, and net income) and one measure of investment (total asset growth) to examine how they co-move with the business cycle. The study finds that all five accounting variables are positively associated with real GDP growth, but they exhibit greater sensitivity to economic conditions during recessions than expansions. There are systematic differences in accounting sensitivity to the business cycle that can be explained by industry- and firm-specific characteristics. For cyclical industries, the influence of the business cycle exists on all five accounting measures, whereas for non-cyclical industries the influence exists only on sales and investments but not on the three profit measures. Further analysis shows that accounting sensitivity to the business cycle decreases with firm size, earnings-to-price ratio, and increases with historical earnings volatility. In addition, we observe that the accounting sensitivity to the business cycle is the convex function of leverage (U-shape), and the concave function of concentration ratio (inverted U-shape). Book-to-market prices ratio also affects accounting sensitivity, but the effect is more complex.
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1. Introduction

The investigation of the association between accounting fundamentals and macroeconomic variables is a prerequisite to understanding macroeconomic influences on the stock market. Accounting fundamentals are key driving forces behind stock price movements, reflecting the link between the real economic activity and the stock market. Investors in the stock market are in effect purchasing an interest in firms’ future earnings streams. However, the activity and performance of individual firm is influenced by the conditions of the overall economy that tend to fluctuate over time in distinct cycles. At any given point, the outlook for a firm’s sales and profits is contingent on the state of the general economy and its own industry and firm characteristics. Although fluctuations in the general economic condition affect nearly all firms, it is well known that the influence tends to be greater on certain industries (such as raw materials, durables, etc.) than on others (such as healthcare, nondurables, utilities, etc.). Furthermore, even for firms within the same industry, the extent of the influence possibly differ due to specific firm characteristics, such as firm sizes, book-to-market prices, earnings-to-price, past earnings pattern, and leverage, etc. However, there have been little researches to systematically investigate how, and to what extent, accounting fundamentals are influenced by aggregate economic activities based on industries and firm characteristics.

This study is intended to further our understanding of accounting behavior within the macro-economic context. We address the following specific issues: How accounting fundamentals behave as the economic conditions change, to what extent this behavior