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Do investors overvalue firms with bloated balance sheets?☆

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Abstract

When cumulative net operating income (accounting value-added) outstrips cumulative free cash flow (cash value-added), subsequent earnings growth is weak. If investors with limited attention focus on accounting profitability, and neglect information about cash profitability, then net operating assets, the cumulative difference between operating income and free cash flow, measures the extent to which reporting outcomes provoke over-optimism. During the 1964–2002 sample period, net operating assets scaled by total assets is a strong negative predictor of long-run stock returns. Predictability is robust with respect to an extensive set of controls and testing methods.

JEL classification: M41; M43; G12; G14

Keywords: Capital markets; Financial reporting; Limited attention; Market efficiency; Behavioral finance

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1. Introduction

Information is vast, and attention limited. People therefore simplify their judgments and decisions by using rules of thumb, and by processing only subsets of available information. Experimental psychologists and accountants document that individuals, including investors and financial professionals, concentrate on a few salient stimuli (see e.g., the surveys of Fiske and Taylor (1991) and Libby et al. (2002)). Doing so is a cognitively frugal way of making good, though suboptimal decisions. An investor who values a firm based on its earnings performance rather than performing a complete analysis of financial variables is following such a strategy.

Several authors have argued that limited investor attention and processing power cause systematic errors that affect market prices.[1] Systematic errors may derive from a failure to think through the implications of accounting rule changes or earnings management. However, even if accounting rules and firms' discretionary accounting choices are held fixed, some operating/reporting outcomes highlight positive or negative aspects of performance more than others.

In this paper, we propose that the level of net operating assets—defined as the difference on the balance sheet between all operating assets and all operating liabilities—measures the extent to which operating/reporting outcomes provoke excessive investor optimism. We will argue that the financial position of a firm with high net operating assets is less attractive than superficial appearances suggest. In other words, we argue that a high level of net operating assets, scaled to control for firm size, indicates a lack of sustainability of recent earnings performance, and that investors do not fully discount for this fact.

A basic accounting identity states that a firm's net operating assets are equal to the cumulation over time of the difference between net operating income and free cash flow (see Penman (2004, p. 230) for the identity in change form):

$$\text{Net Operating Assets}_T = \sum_0^T \text{Operating Income}_t - \sum_0^T \text{Free Cash Flow}_t. \tag{1}$$

Thus, net operating assets are a cumulative measure of the deviation between accounting value added and cash value added—'balance sheet bloat'.

An accumulation of accounting earnings without a commensurate accumulation of free cash flows raises doubts about future profitability. In fact, we document that high normalized net operating assets (indicating relative weakness of cumulative free cash flow relative to cumulative earnings) is associated with a rising trend in earnings that is not subsequently sustained. Furthermore, as argued in more detail in Section 2, high net operating assets may provide a warning signal about the profitability of investment.

[1]See, e.g., Hirshleifer and Teoh (2003), Hirshleifer et al. (2003), Hong et al. (2003), Hong and Stein (2003), Pollet (2003), Della Vigna and Pollet (2003), and the review of Daniel et al. (2002).