A selective critical review of financial accounting research

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ABSTRACT

This essay provides a selective critical review of the financial accounting literature focusing primarily on accounting valuation including implied costs of equity capital, empirical accounting proxies, and frictions in accounting theory. In the opinion of this author, accounting research in these areas is often too complacent, suffering from a lack of critical reasoning. Complacency distorts research innovation and hinders the long-run sustainability of accounting academia in the area of financial accounting. The examples discussed in this essay include (but are not limited to) the issue of structural modeling and model falsifiability; determining whether a firm is over or underpriced based on valuation models that do not allow for such phenomena; arbitrarily “merging” two disparate models one for valuation and one for the discount rate; failing to appreciate the empirical limitations induced by risk-neutral valuation models in estimating costs of capital; employing the same proxies over and over again that ostensibly have no underlying theoretical bases; estimating regressions that necessarily yield biased coefficients when the econometrics literature provides ready solutions; and generating complex models absent the frictions that are essential to the issue being researched.

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1. Introduction

This essay provides a selective critical review of the financial accounting literature focusing primarily but not exclusively on empirical archival research. Selectivity is necessary given the many topics that comprise financial accounting research. Criticality is also called for because the field in my view is overly complacent regarding its scientific methodology, its many dubious proxy constructs and the rather cavalier attitude that financial accounting empiricists (and sometimes even theorists) take to financial accounting theory. Lest I be accused of excessive hubris, let me state at the outset that my own work is not immune from the criticisms raised in this essay.

I will focus my review primarily on three financial accounting research topics: accounting valuation including implied costs of equity capital, empirical accounting proxies, and frictions in accounting theory. I concentrate on these topics because they are central to accounting research and because they are related to my own research interests. The penultimate section discusses more general issues.

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In what follows, Section 2 reviews the accounting valuation and implied cost of capital, literature. Section 3 comments on proxies in financial accounting research. Section 4 focuses on accounting theory and un-modeled frictions. Section 5 discusses the relation between financial accounting research and the refereeing process. Section 6 briefly concludes.

2. Accounting valuation and implied costs of capital

North American accounting regulators, such as the FASB, have traditionally focused on providing investors with information relevant for making informed investment decisions and allocating capital efficiently. For better or worse, their view of the role of accounting numbers has had a major impact on North American financial accounting research, especially on the centrality of valuation and the cost of capital.\(^1\)

2.1. Accounting valuation or accounting allocation

Almost all accounting valuation models to date are based on some variant of Ohlson (1995a,b) and Feltham and Ohlson (1995, 1996, 1999).\(^2\) By accounting valuation models, I mean models that value the firm’s equity based on accounting numbers such as earnings (however defined), book value of equity, the book to market ratio, etc. As far as I can tell, the large empirical literature surrounding these models, especially Ohlson (1995a,b) and the related Residual Income Model (RIM), is motivated primarily by the relative simplicity with which these models can be estimated. In fact, simplicity of execution seems to be a strong motivator for much of the work done in empirical financial accounting research. Simplicity of execution may be a desideratum but surely not at the expense of a fundamental understanding of the research issues involved.

In my experience, financial accounting empiricists often fail to understand the underlying nature of Ohlsonian-type models.\(^3\) First, Ohlsonian models are really accounting allocation models rather than accounting valuation models per se. In these allocation models, the value of the firm is derived from its dividend dynamic based on non-arbitrage arguments. In other words, the value of the firm is known ex ante, given expected dividends, and accounting plays no role in this valuation process. Subsequently, accounting is added (essentially artificially) through the clean surplus (or a similar) relation, with accounting numbers being substituted for dividends.\(^4\) Because the value of the firm is already known (given non-arbitrage), all that one accomplishes here is allocating the known value of the firm to accounting numbers. In the original Ohlson (1995a,b) model, disregarding “other value relevant information”, the value of the firm is allocated to book value (with a weight of one) and to abnormal earnings with a weight of \(\omega/(R_e - \omega)\) where \(\omega\) is the abnormal earnings persistence parameter and \(R_e\) is (one plus) the risk-free rate. By contrast, in a Feltham and Ohlson (1995) model, the firm’s known value is allocated to book value (or net financial assets) with a weight of one, to abnormal operating earnings with a weight of \(\omega_{11}/(R_e - \omega_{11})\) and to operating assets with a weight of \(\omega_{12}/(R_e - \omega_{11})(R_e - \omega_{22})\) where \(\omega_{11}\) is the abnormal operating earnings persistence parameter, \(\omega_{12}\) is the parameter linking operating assets to abnormal operating earnings and \(\omega_{22}\) is the operating assets persistence parameter. The difference between Ohlson (1995a,b) and Feltham and Ohlson (1995) is that the former assumes neutral accounting, that is, accounting that is neither conservative nor aggressive, while the latter assumes that accounting is conservative (and the firm is growing). Firm value in the Feltham and Ohlson (1995, 1996) model includes operating assets as an additional valuation factor to account for the assumption that conservative accounting earnings underestimate the firm’s future growth. In other words, the allocation of firm value to specific accounting variables depends on knowing, ex ante, the underlying accounting of the firm. In the previous example, the more conservative the firm, given growth, the more of the firm’s known value that is allocated to operating assets relative to operating earnings. The valuation problem is exacerbated by the undefined generic “other value relevant information” because these variables too will have the known value of the firm partially allocated to them as well. But, how are we to know, ex ante, which other variables are value relevant—the model does not specify them—and what if the variables that are value relevant differ among firms or across industries?\(^5\)

One could argue that because Ohlsonian models allocate the known value of the firm to accounting variables, these models cannot provide meaningful insights into valuation at all. Although I do not subscribe to this view, it does imply correctly that Ohlsonian models cannot be used to determine which firms are over or undervalued nor estimate intrinsic

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\(^1\) The contracting role of accounting numbers has taken on more importance in financial accounting research in recent years thanks to the Chicago/Rochester school of thought. As a result of the burgeoning governance literature, the (non-contractual) stewardship role of accounting numbers has also taken on a more prominent role. Normative accounting issues continue to be severely under-researched in North America.

\(^2\) Accounting valuation models based on Vuolteenaho (2002) are reviewed elsewhere (see Callen, 2009).

\(^3\) Ohlsonian models and their estimation have been criticized before in the literature. See, for example, Lo and Lys (2000), Ryan (2000), and Beaver (2002) among others. By and large, the arguments expressed in this paper differ from these earlier papers, mainly in terms of the focus on conceptual issues.

\(^4\) The artificiality arises because there is no demand for accounting in these models. Dividends do the trick just as well. Numerous papers have added accounting and other variables (beyond earnings and book value) to Ohlsonian models in arbitrary fashion to proxy for “other value relevant information”.

\(^5\) The rationale for including “other value relevant information” variables in the model is that we know that firm value is typically a function of variables other than just book values of equity or earnings. The weakness of this approach is that these variables are not specified a priori by the model and, hence, potentially make the model non-falsifiable. After all, if the model predicts poorly it could be because the wrong empirical proxy was chosen to represent “other value relevant information”.
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