Equity valuation in practice: The influence of net financial expenses

Leif Atle Beisland *
Faculty of Economics and Social Sciences, University of Agder, 4604 Kristiansand, Norway

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ABSTRACT

This study investigates the relevance of net financial expenses with respect to equity valuation in an IFRS accounting regime. According to the residual earnings valuation model, income related to balance sheet items that are recorded at fair value is not applicable for valuation purposes. There are no residual earnings associated with these items because the balance sheet provides ‘perfect’ value estimates for the items in question. In accordance with the contention that under IFRS, aggregate net financial liabilities are recorded at a book value that is close to fair value, this study demonstrates that net financial expenses are not associated with the market prices of stocks. The investigation discusses the empirical findings in light of the enduring controversies regarding the use of fair value accounting.

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1. Introduction

The residual earnings model for company valuation has become substantially more popular over the course of the past decade, and this model now constitutes an integral aspect of the curriculum of valuation courses at business schools throughout the world. The residual earnings model can be simplified to the residual operating income model if net financial liabilities are recorded at fair value. Under the assumption of fair value accounting for net financial liabilities, it is unnecessary to forecast future net financial expenses; instead, all residual earnings can be attributed to operating items, and the fundamental analysis can focus solely on the forecasting of operating income.

Under International Financial Reporting Standards (IFRS), financial assets and obligations are recorded at either their fair values or their amortised historical costs. It may be argued that amortised historical costs will not differ greatly from fair values in the context of slowly changing interest rate regimes (Penman, 2013). If this contention is valid, then in the aggregate, the book values and fair values of net financial liabilities should be similar. This reasoning raises the important empirical question of whether the aggregate value of net financial liabilities is ‘close enough’ to fair values for residual operating income valuation to serve as an adequate approximation of residual earnings valuation. The purpose of this study is to examine this important question by not only investigating the statistical relationships between accounting information and the market prices of stocks but also relating these findings to the broader discussions about the use of fair value accounting that are occurring in both academic societies and professional circles.

This empirical study reveals that operating income is highly applicable for valuation purposes. This finding is consistent with the widespread use of historical cost accounting for operating items that generate the residual earnings components of operating income. In other words, the balance sheet does not provide sufficient information about the fair value of net
operating assets. However, this study reveals that net financial expenses are statistically unrelated to stock values. This finding is consistent with the conjecture that net financial liabilities are recorded at values that are close to fair values under IFRS; this result indicates that the residual operating income model may provide an adequate approximation for the residual earnings valuation model.

The study assesses a Norwegian sample. Norway has been relatively unaffected by both the recent financial crisis and the on-going eurozone crisis; thus, this nation features stable economic conditions and non-volatile interest rates. Moreover, Norway provides relatively extensive protections for investors and strict legal enforcement of these protections (La Porta, Lopez de Silanes, Sheifer, & Vishney, 1998); these aspects of the Norwegian economic environment promote low and stable levels of earnings management and disclosures that are more informative than disclosures in EEA countries with less comprehensive protections for investors (DeFond, Hung, & Trezevant, 2007; Leuz, Nanda, & Wysocki, 2003).

This paper is organised as follows. Section 2 presents both the residual earnings model and the residual operating income model and discusses the assumptions under which the former model can be replaced by the latter. Section 3 describes the data and presents the research design for this investigation. Section 4 presents the empirical findings of this study; in Section 5, these findings are placed in a wider perspective and analysed in the context of the broader on-going debate on the general uses of fair value accounting. Section 6 concludes the paper.

2. Theoretical background

The value of a company’s equity is equal to the present value of its future dividends. It is initially assumed that the clean surplus relation (CSR) holds. The CSR indicates that a change in book equity is equal to the value of net earnings minus net dividends. Thus, under the CSR, there is no dirty surplus (other comprehensive income). If the CSR holds, then the dividend model can be restated as the renowned residual earnings (or income) model (see, e.g., Ohlson, 1995):

\[ V_E^0 = B_0 + \sum_{t=1}^{\infty} E[EARN_t - r_E * B_{t-1}] \]

In the equation above, \( V_E^0 \) is the value of a firm’s equity at time 0, \( B_0 \) is the book value of the firm’s equity, \( EARN \) is the firm’s net earnings, and \( r_E \) is the required rate of return on the equity (for simplicity, this rate of return is assumed to be constant). The validity of the CSR is not strictly required by this model. Because the model is forward looking, one can always assume that there will be no dirty surplus; any forecast of a dirty surplus can simply be added to net earnings on a future pro forma income statement.

The residual earnings model states that the value of a company’s equity is equal to the book value of its equity plus the discounted value of its future residual earnings. Residual (or abnormal) earnings are defined as the difference between a firm’s accounting income and the firm’s required return on its book value of equity. If the balance sheet is perfect in the sense that all items are recorded at fair value, the equity value will simply be equal to the book value of equity, and the forecasted residual earnings will be equal to zero for all future years. Under these perfect accounting conditions, all values will be provided by the balance sheet, and the income statement will have no relevance for valuation purposes. However, under conservative accounting rules, the book values of assets are typically underestimated and the book values of liabilities are sometimes overestimated; therefore, using these rules, the value of residual earnings will be greater than zero and the income statement will typically provide value-relevant information.

In principle, the residual earnings model can be disaggregated such that residual earnings are computed for every balance sheet item. The equity value will then be equal to the sum of all of these items’ book values plus the sum of the present values of the residual earnings that each balance sheet item is expected to generate in the future. The future residual earnings for items that are recorded at fair value (or intrinsic value) may be disregarded because all future residual earnings for these items will be equal to zero: “If some assets are measured in the balance sheet at market value and if market value equals intrinsic value, then we know [that] we don’t have to forecast the residual earnings that they will produce; their forecasted residual earnings will be zero” (Penman, 2013, p. 438).

In most countries, the accounting that is performed for operating items is generally conservative. For instance, PPE (property, plant and equipment) assets are typically depreciated excessively quickly, generating accounting values that are lower than the fair values of these assets. Moreover, intangible assets are also frequently either underestimated in value or not recognised on the balance sheet at all. In addition, liabilities are often treated conservatively in the context of accounting; in general, operating liabilities and provisions are rarely underestimated. However, many accounting regimes, such as IFRS, have sought to increase the use of fair value accounting for financial assets and liabilities (Hernández Hernández, 2004). The primary argument for this change is that it would allow for more up-to-date and relevant valuations of assets and liabilities to be included on a firm’s balance sheet (William & Jackson, 2008); these valuations could enable investors and other users of financial statement information to obtain more accurate assessments of the consequences of a firm’s financing strategies (Khurana & Myung-Sun, 2003).

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1 The European Union required all exchange-listed firms within the European Economic Area (EEA) to adopt IFRS in their consolidated financial statements on January 1st, 2005. The EEA consists of Norway, Iceland, Lichtenstein and the EU nations.
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