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Fair-value pension accounting ☆

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Abstract

We compare the value and credit relevance of financial statements under fair-value and smoothing (SFAS-87) models of pension accounting. While fair-value improves the credit relevance of the balance sheet, it does not improve its value relevance. Further, fair-value impairs both the value and credit relevance of the income statement and the combined financial statements unless transitory gains and losses (G&L) are separated from more persistent income components. Overall, our results suggest there are no informational benefits to adopting a fair-value pension accounting model.

JEL classification: M41; M44; G23

Keywords: Capital markets; Pensions; Accounting standards

1. Introduction

Current pension accounting recognition and measurement rules (Statement of Financial Accounting Standards 87, hereafter SFAS-87, Financial Accounting Standards Board, 1985) emphasize the attribution of pension costs to periods of employee service. Accordingly, changes in the fair value of pension assets and liabilities are amortized over

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expected remaining employee service through an elaborate smoothing mechanism. While such a "smoothing" model generates a stable pension expense, the balance sheet recognizes merely an accrued or prepaid pension cost (i.e., the accumulated pension expense net of contributions), rather than the fair value of net pension assets. The smoothing provisions of SFAS-87 have therefore come under unprecedented attack from various quarters. As a result, an alternative fair-value pension accounting model has been adopted or is under active consideration by the world's standard-setting bodies. Under this method, the balance sheet reflects the fair value of net pension assets and all changes in the fair value of net pension assets flow through income.

We provide evidence on the properties of financial statement numbers under two alternative approaches to pension accounting—the current smoothing model (largely consistent with SFAS-87) and the proposed fair-value model. Proponents of the fair-value model maintain it will improve the informativeness of the balance sheet by incorporating the most current values of pension assets and liabilities rather than a historical measure of accrued pension cost. However, income under the fair-value model includes transitory changes in net pension assets, which could increase its volatility and reduce its persistence. Thus, whether adopting a fair-value pension accounting model will improve or impair the value and credit relevance of the *combined* financial statements is essentially an empirical question.

We use footnote information to generate income statement and balance sheet numbers under the fair-value pension accounting model. We then compare the time-series properties, value relevance, and credit relevance of financial statement numbers generated under the smoothing and fair-value pension accounting models. We define value (credit) relevance as the association between financial statement measures and equity investors' (creditors') future cash flow expectations, which we proxy through stock prices (credit ratings). We conduct our primary analyses on a large sample of firms over the 1991–2002 period.

Our evidence is consistent with concerns voiced during the SFAS-87 deliberations: fair-value pension accounting introduces considerable volatility in net income, reducing its persistence and partially obscuring the underlying information in operating (non-pension) income. Because of its lower persistence, fair-value income is less value relevant than smoothing income. However, contrary to expectation, fair-value book values are no more value relevant than those based on smoothing. Consequently, the value relevance of book value and income combined is significantly higher under smoothing than under fair value. The inferior value relevance of income under the fair-value model can be attributed to the fair-value model's aggregation of highly transitory unrealized gains and losses on net pension assets (henceforth G&L) with more persistent income components. After separating G&L from other income components, we find no economically meaningful difference between the value relevance of the fair-value and the smoothing models.

Turning to credit relevance, our analyses compare the relative ability of various financial ratios, measured alternatively under the smoothing and the fair-value models, to explain default probability. We proxy for default probability using Standard & Poor's (S&P) long-term issuer credit ratings and model credit ratings following Kaplan and Urwitz (1979). Data requirements restrict our credit-relevance analyses to the 1995–2002 period. We find that the fair-value model improves (impairs) the credit relevance of balance sheet (income statement) numbers vis-à-vis the smoothing model. However, consistent with our