

## Sales-Based Dynamic Investment and Leverage Decisions: A Longitudinal Study

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**Abstract :** The paper develops a system-based approach to investigate the dynamic adjustment of debt structure and investment policies of the Dow-Jones index. This approach enables the assessment of relations among sales, debt, and investment opportunities by considering the simultaneous effect of the market environmental change and future growth opportunities. We integrate the firm-specific sales variance to capture the industries' conditions in the model. Empirical results were obtained through a panel data set of firms with different sectors. The analysis support that environmental change does not affect equally the different industry since operating leverage differs among industries and so the sensitivity to sales variance. Including adjusted-specific variance, we find that there is no monotonic relation between leverage, sales, and investment. The firm may choose a low debt level in response to high sales variance but high leverage to attenuate the negative relation between sales variance and the current level of investment. We further find that while the overall effect of debt maturity on leverage is unaffected by the level of growth opportunities, the shorter the maturity of debt is, the smaller the direct effect of sales variance on investment.

**Keywords :** dynamic panel, investment, leverage decision, sales uncertainty

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