The Effects of Real Estate Cycles on the Valuation of Real Estate Investment Trusts

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Abstract: Prior studies relying on 3–6 year samples provide conflicting results on whether funds from operations (FFO), a pro-forma earnings for Real Estate Investment Trusts (REITs), better explains equity value, compared to GAAP net income. This study examines whether the relative ability of FFO versus net income to explain equity value varies asymmetrically with real estate cycles over the period 1995–2008. Using the Feltham-Ohlson (1996) model adapted to REITs, this study finds that the valuation weight on FFO (composed mainly of cash flows from operations) is pro-cyclical, while the valuation weight on non-FFO items (composed mainly of depreciation expense) is counter-cyclical. This study also finds that in expansions, the Ohlson (1995) model that assumes unbiased depreciation policy better explains stock prices and returns, when FFO rather than net income is used as a summary performance measure. In contrast, this is not the case in contractions. The findings suggest that in expansions, FFO better explains equity value than net income because the conservative bias in depreciation expense increases in expansions and decreases in contractions.

JEL Classification: G12, G29, M41

Keywords: Real estate cycles; Valuation weight; Funds from operations (FFO); Net income; Depreciation expense

Data Availability: All data used in the study are available from public sources.