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The information content of funds from operations (FFO) for real estate investment trusts (REITs)

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Abstract

This paper examines the information content of alternative summary performance measures, using stock returns as the benchmark, for 138 REITs during 1994–1996. This paper tests for both incremental and relative information content of FFO (a voluntarily disclosed, accounting-based performance measure that is the industry standard for REITs) compared to GAAP net income (EPS), cash from operations, and earnings before interest, taxes, depreciation and amortization. Results indicate that both FFO and EPS consistently provide incremental information content with only weak evidence that EPS has greater relative information content and no evidence for the other summary performance measures.

Introduction

This paper examines the ability of alternative accounting-based summary performance measures to measure firm performance as reflected in stock returns for 138 real estate investment trusts (REITs) during 1994–1996. REITs compose the sample because the REIT industry has devised a unique measure of performance, funds from operation (FFO), that has become the industry standard. FFO, a voluntarily disclosed, accounting-based performance measure, is essentially GAAP net income adjusted for depreciation and amortization, and for any gains (or losses) from property sales or debt restructuring. The measure is widely used by REIT management, security and credit analysts, the financial press, and even some forecasting services. The main industry trade association, the National Association of Real Estate Investment Trusts (NAREIT) advocates FFO as superior to net income for measuring REIT performance (Fass et al., 1997). The alleged superiority of FFO stems primarily from its elimination of GAAP depreciation, which assumes that the value of real estate assets diminishes predictably over time. Although real estate values vary with market conditions, interest rates, and other macroeconomic factors, NAREIT believes real estate values are generally not correlated with the accounting treatment of the assets.

The purpose of this paper is to test industry claims that FFO is an economically superior measure of REIT operating performance relative to GAAP net income (EPS) and to two traditional performance measures readily available from GAAP financial statements, cash from operations (CFO) and earnings before interest, taxes, depreciation and amortization (EBITDA).[1] The notion that GAAP is inferior to certain non-GAAP performance and valuation measures has been put forward by, for example, Amir and Lev (1996), the AIMR (Association for Investment Management and Research, 1993), and the AICPA Special Committee (1994). REITs provide an opportunity to examine claims that traditional, accounting-based performance measures are inferior alternatives, particularly for fast-growing firms whose operations do not conform well to the traditional manufacturing or retailing model. Furthermore, REITs have taken the unusual approach of devising and reporting their own accounting performance measure in response to perceived shortcomings in GAAP, rather than waiting for standard setters to develop a solution.

Analyst reports, industry publications, and the financial press provide consistent anecdotal evidence that FFO is the preferred summary performance measure for REITs.[2] FFO's emphasis on capturing recurring operating performance is also consistent with the AICPA Special Committee's (1994) focus on reporting separately the effects of core and non-core activities and events. This is a unique setting to explore an extension of the current financial reporting model for a specific industry because of agreement by both providers and users (securities' analysts) of financial information on the usefulness of the extension.

I conduct tests for both relative and incremental information content of FFO, EPS, CFO, and EBITDA, using stock returns as the benchmark for measuring firm performance, and analyze both levels and changes of the performance measures. Tests of relative information content assess the amount of information in each of the measures, and are appropriate because of the exclusive attention often accorded FFO by NAREIT and capital market participants. Tests for incremental information content assess whether one performance measure contributes information in addition to that of one or more other performance measures. These tests are also appropriate because the SEC and FASB view FFO as supplementing EPS and other GAAP accounting measures, and not as a replacement. I use three alternative specifications for the unexpected value of the performance measures: a random walk model, a model proposed by Biddle et al. (1995), and a model based on analysts' forecasts of EPS and FFO. The models test quarterly and annual performance measures over both short (three day) and long (three month and one year for the quarterly and annual data, respectively) windows.

Results of tests for relative information content indicate that EPS has greater information content than FFO but only for quarterly data over long windows; none of the summary performance measures dominates the others with annual data. Results of tests for incremental information content indicate that FFO and EPS both provide incremental information content. The combined evidence from incremental and relative information content tests supports the inference that both FFO and EPS provide information reflected in stock prices, and that it is premature to dismiss EPS as an inferior measure of performance as claimed by the REIT industry.

The short window tests for market reaction around the announcement date also assess whether the REIT disclosures are not only useful for explaining security returns but whether they are in fact used by investors (Easton, 1998; Beaver, 1998). Results for quarterly announcements indicate that investors use both EPS and FFO, but that investors rely solely on EPS at annual earnings announcement dates.

The paper proceeds as follows. Section 2provides industry background. Section 3discusses the accounting issues, and Section 4describes the sample. Section 5discusses the specification of the empirical tests and the results. Section 6summarizes and concludes.

Section snippets

Background and description of REIT industry

The US Congress authorized REITs in 1960 to provide a means for individuals to make long-term passive, but still liquid, investments in real estate. REITs are authorized pass-through entities for tax purposes if they meet the requirements of the Internal Revenue Code (IRC). The main IRC requirement is that REITs distribute at least 95% of taxable net income (excluding capital gains and certain noncash taxable items) to shareholders in the form of dividends, in which case no taxes are paid at…

Alternative accounting-based performance measures

Although FFO has been reported by some REITs since at least the early 1980's, NAREIT first provided a formal definition of FFO in 1991: "Funds from operations means net income (computed in accordance with generally accepted accounting principles), excluding gains (or losses) from debt restructuring and sales of property, plus depreciation and amortization, and after adjustment for unconsolidated partnerships and joint ventures. Adjustment for unconsolidated partnerships and joint ventures will…

Sample

The sample consists of 138 of the 166 publicly traded equity REITs as of December 31, 1996. All financial data are collected from annual reports, Forms 10-K, and prospectuses. Share prices are obtained from CRSP. Table 2, Panel A itemizes the reasons for exclusion of 60 publicly traded REITs from the sample. The largest category (18 REITs) is due to unavailability of stock price data on CRSP. Data are for the years 1994–1996 for several reasons. First, the REIT market changed significantly in…

Empirical tests

I use the models described next to test the four accounting-based summary performance measures for both incremental and relative information content (Biddle et al., 1995; Jennings, 1990; Bowen et al., 1987), using both long window (one year and one quarter) and short window (three day) market-adjusted returns as benchmarks for assessing REIT performance. Tests for relative information content assess whether one measure has greater information content than another and are often used when…

Summary and conclusions

This paper assesses the information content of four summary performance measures for a sample of 138 publicly traded equity REITs during 1994–1996. The REIT industry claims that FFO, a voluntarily disclosed measure that has become the REIT industry benchmark for performance, is superior to GAAP-based performance measures, particularly earnings. The prevalence of FFO reporting by REITs together with regular use of FFO by securities analysts motivate the study. The information content of FFO is…

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> …Gore and Stott (1998) argue that FFO explains more of the variation in annual stock returns than NI does, but this difference is statistically insignificant based on data from 1991 to 1996. Moreover, Vincent (1999) shows that the information content of EPS is slightly higher than that of FFO per share based on a sample period from 1994 to 1996. These results are the opposite of ours, which are based on the 1980–2014 period.…

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> …For instance, Liedtka (1999) examines firms in the airline industry and shows that the disclosure of customer satisfaction ratings is value relevant. Vincent (1999) finds that FFO (a voluntarily disclosed performance measure for REITs) and EPS provide incremental information content. More recently, Wang et al. (2013) demonstrate that qualitative disclosure of information security risk factors may dampen the negative impact of subsequent security incidents.…

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