



## Discussion of “Evaluating Non-GAAP Performance Measures in the REIT Industry”

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The stated goal of Fields, Rangan, and Thiagarajan (FRT hereafter) is to evaluate the usefulness of non-generally accepted accounting principles (GAAP) accounting measures in the real estate investment trust (REIT) industry. A key strength of their study is that the REIT industry provides great potential as a setting for evaluating non-GAAP performance measures. Most REITs routinely report funds from operations (FFO) as an alternative to GAAP earnings as a measure of periodic performance. Indeed, use of FFO is so commonplace that First Call, an agency that gathers information on analysts' earnings forecasts, gathers information on FFO rather than earnings for REITs. A small number of REITs also voluntarily disclose estimates of the current value of their properties in addition to the required historical cost-based GAAP values. Since the properties comprise the major assets of REITs, the current value disclosures should, in theory, provide important information about the value of the REIT.

The major hurdle facing FRT in conducting their analysis is to establish criteria by which to evaluate the non-GAAP measures with their GAAP counterparts. FRT specify ‘usefulness’ as the primary criterion by which they evaluate alternative measures. This criterion is in line with the Financial Accounting Standards Board’s (FASB’s) conceptual framework, which argues that the primary role of financial reporting is to “provide information that is useful to present and potential investors and creditors.” The FASB further states that relevance and reliability are the two primary qualities that make accounting information useful. Relevance refers to the capacity of the information to make a difference in decision making, while reliability refers to the information being free from error and bias and faithfully representing what it purports to represent. FRT conduct a series of tests relating to the relevance and reliability of the non-GAAP measures. However, it is difficult to assess the implications of each test for the relevance and reliability of the non-GAAP measures, and it is also difficult to synthesize findings across tests to reach an overall conclusion about the relative usefulness of the non-GAAP measures. As a result, the study cannot provide definitive conclusions about the usefulness of the non-GAAP measures. Nevertheless, the study provides helpful pieces of evidence that contribute to our understanding of the properties of the non-GAAP measures. This evidence should prove useful to standard setters who are charged with the difficult and subjective responsibility of choosing between alternative accounting measures.

Below, I provide some brief comments on each of the non-GAAP financial measures considered by FRT. I then discuss what the tests conducted by FRT tell us about the relevance and reliability of the measures. A final section provides some concluding comments.

## 1. Funds from Operations

Funds from operations (FFO) is widely used in the REIT industry as an alternative to net income as a summary measure of firm performance. FFO is computed by reversing a number of GAAP adjustments to net income including depreciation on property and gains and losses on the sales of properties. An important conceptual issue with FFO is whether it should be considered a non-GAAP measure, or whether it should be considered as a measure of 'core earnings' that falls within the confines of the GAAP system. All of the components of FFO are provided by the GAAP system. However, in some cases, it can be difficult for users to reconstruct FFO from public financial statements, because the statements do not provide the necessary information in enough detail. Nevertheless, the above limitation can be resolved by requiring more detailed disclosures about the required adjustments. Thus, evaluating net income versus FFO boils down to evaluating two different methods of aggregating and disclosing information provided by the current GAAP system.

### 1.1. *Relevance of FFO*

Recall that for information to be relevant, it must influence decision-making. It is difficult to see how the disclosure of FFO can significantly influence decision making, since FFO can be estimated with reasonable accuracy from existing GAAP disclosures. Arguments in favor of FFO seem to be predicated on the idea that users tend to 'fixate' on a summary measure of firm performance and ignore information in the components of the measure. If FFO summarizes firm performance better than net income, then presumably investors will make better decisions if they 'fixate' on FFO rather than net income. For example, measuring earnings before transitory gains and losses may be useful if investors do not comprehend the transitory nature of these items. The rationale for measuring earnings before depreciation is less clear. The rationale identified by FRT is that the inclusion of depreciation causes net income to understate performance in times of rising property prices. This rationale is less than complete, because it fails to consider times of falling property prices, and it is also not clear why FFO will do a good job at tracking property values even in times of rising property values.

While the theoretical justification for FFO over net income is not clear, it is still possible that it could provide a more relevant measure of firm performance for empirical purposes. To investigate this possibility, FRT correlate FFO and net income with a variety of performance metrics, including future FFO and net income, and contemporaneous stock prices. One problem highlighted by these tests is that of specifying the underlying performance construct being measured. For example, in Table 2, the authors find that FFO and net income are each better at predicting their own future realizations. Yet these tests beg the question of which of the two measures we really want to predict, which takes us back to the question of which is the more appropriate measure of firm performance. Thus, these tests are somewhat circular. A second problem highlighted by these tests is that it is difficult to use observed price data to evaluate how FFO influences investors' decisions. For example, in Table 3, the authors find that net income is more highly correlated with prices than FFO. However, the current GAAP system emphasizes net income over FFO, and so the results could simply

reflect naïve investor fixation on net income. It would be interesting to know if prices would be different if the accounting system emphasized FFO, but a test of this hypothesis is not possible. This highlights a basic problem with the stock price tests. If we assume that prices perfectly reflect available information, then it should not matter whether we label net income or FFO the ‘official’ summary measure of performance, so long as sufficient data to compute both measures is disclosed. On the other hand, if we assume investors fixate on the measure accorded recognition as the ‘official’ performance measure, then prices are going to be influenced by the existing reporting requirements, and so it is difficult to use prices to evaluate alternative performance measures.

### **1.2. Reliability of FFO**

Recall that for information to be reliable, it must be relatively free of error and bias. It is difficult to evaluate this quality without observing the underlying construct that is being measured. FRT evaluate this quality by testing whether managers use available discretion opportunistically when reporting FFO. In Table 4, the authors find that firms appear to use discretion over a revenue accrual called straight-line rents to manipulate FFO. This evidence is interesting and raises questions about the reliability of FFO. However, the test has little to say about the relative reliability of FFO versus net income. A further shortcoming of this test is that the discretion that is being exploited appears to be attributable to the unrefined nature of the current rules governing the computation of FFO. If FFO were to be incorporated in GAAP, it would be simple to eliminate the source of discretion identified by FRT through more refined rules. Thus, the author’s tests allow them to say little about the *relative* reliability of net income and FFO.

## **2. Current Values**

A small number of REITs voluntarily disclose information on the current values of their properties. FRT use this data to assess the usefulness of current value data. Unlike FFO disclosures, current value disclosures require management to make estimates that they are not required to make under current GAAP. Moreover, there have recently been renewed calls for increased use of current values in GAAP. The REIT industry provides an interesting test case for the current value debate, because estimating current values for the properties owned by REITs should be easier than estimating the current values of less liquid assets, such as the operating assets owned by manufacturing firms. Thus, if current value data for REITs is too unreliable to be useful, then it is unlikely that current value data will be useful in other industries. FRT evaluate the usefulness of current values by examining whether these values have explanatory power for contemporaneous prices beyond current GAAP measures, such as book value, net income, and FFO. I discuss what we can infer from these tests about the relevance and reliability of current value data below. However, it is worth noting that a more general concern with FRT’s research design is that it evaluates the *incremental* information content of current values, rather than the *relative* information content of current values. In other words, the research question that FRT ask is not “is a current value-based accounting

system more useful than an historical cost-based accounting system?” Rather, it is “given an historical-cost-based accounting system, do supplemental disclosures on current values convey additional information?” Thus, it is important to recognize that the research design does not focus directly on the desirability of replacing an historical cost-based accounting system with a system based on current values.

### ***2.1. Relevance of Current Values***

Within the context of FRT’s research design, a significant coefficient on the current value variable in explaining price is viewed as consistent with the relevance of current values. FRT find consistent evidence that their current value variable has significant explanatory power with respect to price. Note, however, that FRT’s research design does not permit inferences about whether investors actually use the current value information provided in the financial statements. Information on real estate values is widely available. For example, if a REIT owns condominiums in Texas, then statistics on recent sales prices of condominiums in Texas provide important information about the current value of the REIT’s property. Since information on recent condominium prices is no doubt available to investors from other sources, it is possible that the current value information provided by management in the financial statements is already known, and hence irrelevant. This shortcoming of FRT’s research design could be overcome by focusing on impact of the release of current value information on stock prices.

### ***2.2. Reliability of Current Values***

FRT provide two pieces of information bearing on the reliability of the current value information disclosed by REITs. First, they provide evidence on the ratio of share price to current value of equity per share. If current values are reliable and are incorporated in market prices, then presumably, this ratio should be close to one. Second, FRT regress prices on book value of equity (BV) and the difference between the current value of equity and the book value of equity (DIFF). If current values are reliable and incorporated in stock prices, then:

1. The coefficients on BV and DIFF should both be one when both are included in the regression.
2. Other variables, such as net income and FFO should not have incremental explanatory power over BV and DIFF.

The empirical results in Table 5 strongly reject the above restrictions. The mean ratio of price to current value of equity is 0.53, implying that stock prices are only about half as large as management’s estimates of REIT current value. The coefficients on DIFF in the pricing regressions vary between 0.3 and 0.5, depending on the specification. Again, this is far short of the theoretical value of one. Finally, both net income (NI) and FFO have incremental explanatory power beyond BV and DIFF, suggesting that current values miss

important information about firm value. Overall, the tests do not suggest that current values are reliable. However, one problem with the tests is that the appropriate reliability cut-off is not clear. One could argue that being wrong by a factor of 2 or 3 is not sufficient to make current values unreliable. Even so, FRT's results indicate that the coefficient on DIFF is consistently smaller than the coefficient on BV (when both are included in the regression), suggesting that information in current values is less reliable than information in the other components of book value.

### 3. Concluding Remarks

FRT's paper represents one of many papers that attempt to evaluate the usefulness of non-GAAP information. FRT pick an interesting setting in the REIT industry, and perform a detailed and refined set of empirical tests. However, as with all papers of this ilk, no definitive policy recommendations arise from the analysis. In defense of the authors of the current paper, they are forthright about the lack of clear policy implications stemming from their research.

Given the lack of policy implications, it is worth asking what can be learned from research of this type. For example, there are undoubtedly many pieces of information that are correlated with value, but are not incorporated in GAAP on a timely basis. Indeed, security analysts specialize in forecasting future earnings. The role of analysts would be redundant if earnings reflected all available information on a timely basis. Yet few would realistically suggest that GAAP should incorporate the myriad of information variables considered by security analysts.

One could simply consider pricing regressions of the type conducted by FRT as tests of simple valuation models that have no policy implications with respect to what should or should not be included in GAAP. I expect that if such a motivation were provided, the valuation model would be criticized on the grounds that it is too simple. Alternatively, if one wants to use pricing regressions to evaluate GAAP alternatives, such that there are policy implications, then the researcher must specify how the 'reliability' of the information variable is evaluated. It seems that it is the reliability criterion that makes the difference between the myriad of variables that can help forecast value and the much smaller subset of variables that are included in GAAP. Unless researchers can develop a measure of reliability, along with an appropriate cut-off establishing what is reliable enough to be included in GAAP, it will be impossible for researchers to make policy recommendations about what should be included in GAAP.