Apples to Oranges? The Capitalization versus Expensing Debate and Performance Return Comparisons

by

Timothy W. Viezer
Economic Research Analyst
State Teachers Retirement System of Ohio
275 East Broad Street, Columbus, Ohio 43215
phone: 614-227-7842 / fax: 614-227-7847 / e-mail: ViezerT@strs.state.oh.us

and

Michael S. Young
Vice President and Director of Quantitative Research
The RREEF Funds
101 California Street, San Francisco, California 94111
phone: 415-781-3300 / fax: 415-781-2229 / e-mail: MYoung@RREEF.com

published in

Real Estate Finance
Vol. 13, No. 3, Fall 1997, pp. 64-74.

Apples to Oranges?
The Capitalization versus Expensing Debate and Performance Return Comparisons

by
Timothy W. Viezer and Michael S. Young

Performance measurement through a comparison of rates of return is one of the principal ways investors make investment decisions. Since capital expenditures are often the largest claim on commercial real estate cash flow, real estate investment managers, pension plan sponsors, consultants, and researchers have focused on capital expenditures as a likely source of underperformance and as a way of making sense of performance differences among managers dealing in seemingly identical property types and employing similar investment strategies.

Recent research has investigated the level of capital expenditures rather than focus on reporting variances due to different accounting practices. Attention from this issue was diverted by a 1986 study by NCREIF that concluded:

> provided that the market values are determined in the same period, the current total return is the same using the expense method and capitalization method (and either amortizing or not amortizing) provided that the capitalized amounts are included in the carrying value of the asset when calculating the appreciation adjustment.

In reality, the timing of valuations and the actual calculation of carrying values differ from the provisos of the 1986 NCREIF study.

In the imperfect world in which investors must operate, economic events and accounting entries vary across the dimensions of timing, recognition, and measurement. For confirmation, we conduct a new survey of NCREIF members and test the implications of their various accounting policies on returns with some surprising results. This article considers the need for analytical adjustments because the choice by managers to capitalize or expense capital expenditures can affect return calculations and comparisons.[1]

Analysts in other industries routinely make adjustments to place differences in accounting practices on an even footing, for example, choices between LIFO and FIFO. The findings from our survey have some implications for those who use NPI for benchmarking or asset allocation purposes. We present the findings of a recent survey of NPI data contributors with respect to their accounting treatment of capital expenditures. Next, we use this information in simulations to demonstrate the direction and magnitude of spreads between a capitalizing investor and an expensing investor.

NCREIF 1986 Survey of Accounting Policies

In June 1997, the State Teachers Retirement System (STRS) of Ohio's Real Estate Research Department conducted a survey of the NCREIF membership to investigate the policies among

---

[1] To capitalize a capital improvement is to record an expenditure that may benefit a future period as an asset rather than to treat the expenditure as an expense of the period of its occurrence.

member firms as to their accounting policies for capital improvements (CI).[2] This survey is similar to a NCREIF survey conducted in October 1986 of 32 member firms. The STRS survey, however, focuses on the data actually contributed to the NCREIF data base, rather than on the different methods member firms use to calculate their own performance. (A copy of the survey is included in the appendix.) Before considering the results of the 1997 survey, it is useful to review the 1986 NCREIF findings.

The 1986 NCREIF survey finds that many members adopted accounting policies for recording tenant improvements, tenant allowances, leasing commissions, building improvements, and free rent that differed from the historical cost method of accounting. These items will be collectively referred to here as capital expenditures (also known as CI for capital improvements in the NCREIF parlance) because their useful lives extend beyond one year.

The differences place members into two schools of thought concerning the preparation of financial statements. One school of thought prepares financial statements using a strict application of GAAP for net investment income, but determines the market values for real estate assets by the appraisal process. The other school of thought prepares financial statements in a manner consistent with the appraisal process whereby net income is calculated in a manner similar to cash flow.[3] In this study, 75% of all the respondents capitalize CI and a large majority of those who capitalize tenant improvements did not amortize.[4] In fact, more than 50% of all respondents believe that amortizing CI is not consistent with the appraisal process.

STRS 1997 Survey

STRS contacted 77 NCREIF member firms and received 51 responses. The respondents include 42 of the 45 data contributors to the NCREIF Property Index (NPI) and represented a 93% response rate. According to NCREIF, the respondents represented over 99.9% of the market value of the NPI as of June 30, 1997.[5] The results show that there are still two schools of thought on the capitalization/expensing debate and that the capitalization school is still far and away the majority. Only one respondent reported amortizing capital expenditures.

On the basis of the survey responses, we create five groups of respondents called Type A through Type E. The "type" of data contributor (from an accounting viewpoint) and their number and relative percentage of all respondents are listed in Exhibit 1.

To illustrate the differences in these reporting types, consider the following simple example. A property is valued at $10 million prior to a capital expenditure. A capital expenditure (CI) equal to $200,000 is then incurred that immediately causes the quarterly net operating income (NOI) to rise from $250,000 to $255,000. At the end of the quarter the five types of investors would then

[2] The authors would like to thank Geoff Bump and Lisa Michalowski at the State Teachers Retirement System of Ohio's Real Estate Research Department for their assistance in contacting the entire NCREIF voting membership for this survey and those many firms that responded. The authors would also like to thank Dr. David Geltner for his detailed suggestions over the course of this research.

[3] Net operating income is the difference between effective gross income and operating expenses. Net cash flow to the investor is the net operating income less income taxes and non-operating expenses (including CIs).

[4] To amortize a CI is to claim an expenditure as an annual expense over an extended period of years.

[5] The authors would like to thank Doug Harper, Director of Research at NCREIF for calculating the survey results as a percent of the NPI.

report the following numbers to be used in calculating performance.

- Type A reports $200,000 as a CI, $255,000 as NOI, and an ending market value of only $10 million because the CI was expensed.
- Type B reports net cash flow (NCF) of $55,000 ($255,000 NOI minus $200,000 CI) as income and likewise report an unchanged ending market value.
- Type C would add the CI to the beginning market value ($200,000 + $10,000,000) to arrive at an ending market value of $10.2 million, and report NOI equal to $255,000 and a CI of $200,000.
- Type E would be essentially the same in this instance as Type C. The only difference here would be that the appraiser, rather than the accounting department, increased the ending market value.

Differences would arise in situations where income changed but no capital expenditure was incurred in that quarter. Type D, for example, would (if immediately amortizing the CI) report NOI equal to $242,500 ($255,000 minus $12,500 amortization arrived at by dividing the $200,000 CI by 16 quarters), CI equal to $200,000, a "partial sale" (amortization) of $12,500, and an ending market value of $10,187,500 ($10,000,000 plus $200,000 minus $12,500).

The survey finds that at least 88% of the responding data contributors capitalize, but some caveats should be noted. Some items are expensed at capitalizing firms. Exhibit 2 shows the criteria the respondents used in deciding whether to capitalize an expenditure. The question allowed for multiple responses. Some respondents also noted the size of expenditure needed for capitalization.

While the survey attempts to capture all likely responses, its format may have constrained some responses, thus creating errors in reporting. For example, three firms indicated that they appraise all properties every quarter. This is an unsolicited piece of information, and an important one too, but we do not know whether other respondents have a similar policy. Nonetheless, the current survey does show that the capitalizing firms represent the majority of responses, with about 97% of market value in the NPI.

The distinction as to whether an investor reports NOI or NCF may appear immaterial. Fisher [1994] demonstrates that the difference between investors who use NOI and those who use NCF will be found only in the components of total return (income and appreciation) and that these effects exactly offset each other in the total return. To show this is true, we turn to our earlier example (Exhibit 1). Using the NCREIF return formulas,[6] the Type A investor would report an income return of 2.55% and -2.00% appreciation, so that A's total return would equal +0.55%. Since Type B reports a lower income value (NCF) than A, B's income return would be +0.55%. Since the CI is not reported by B, there is no change in market value and therefore zero appreciation, yielding the same total return as A.

There are, however, impacts resulting from accounting policies that generate NCF submissions. An investor who focuses on cash available for distribution may not have the actual amounts of their CIs available for calculating their investment returns according to the NCREIF formula or as required for submission to NCREIF. The reason is that these amounts are expensed

6 The NCREIF formula for the income return is NOI / (Beginning Market Value + .5 (Capital Improvements - Partial Sales) - .33 NOI). The appreciation return is calculated as (Ending Market Value - Beginning Market Value - Capital Improvements + Partial Sales) / (Beginning Market Value + .5 (Capital Improvements - Partial Sales) - 33 NOI). The total return is computed by adding the income return and appreciation return on a quarterly basis.

at the property level resulting in a lower income figure ($255,000 minus $200,000) with no CI figure to adjust the beginning market value.

Moreover, researchers who might wish to subtract the reported CI figure available from NCREIF to create a "distributable cash flow" return as suggested by Young, et al. [1995, 1996], would not have all the data needed (Type B would not report any CI). Subtracting the new CI detail available to NCREIF to arrive at NCF would not be correct, as it would amount to "double counting" for those data contributors (i.e., the reported $55,000 income minus $200,000 CI from the detailed NCREIF data would not equal A's NCF).

Fortunately, the lack of reported CI figures is confined to just two data contributors. On the other hand, there are implications for these investors in comparing themselves to the NPI. In fact, these *reported* differences could result in differences from a benchmark even if all have the same "true performance." Also, researchers working with disaggregate NCREIF data could unknowingly process information from a sample where data from these two contributors consists of the entire set, given the "four property, two manager" NCREIF disaggregation policy.

Do the Accounting Policies Affect Performance? A Simulation

According to White, Sondhi, and Fried [1994],

> good financial analysis requires the analyst to understand how financial statements are generated in order to separate the economic process that generates the numbers from the accounting process that (sometimes) obscures it.

To accomplish this task, we assume a world where the economic process is the same for all real estate investors. In this world, the only differences are the accounting treatment and reporting of CIs.

In this hypothetical world, all properties are initially valued at $10 million and each investor has 16 identical properties. To focus only on changes in the accounting treatment, the capitalization rate used by appraisers will remain at 10% throughout, and generally one-fourth of the portfolio will be appraised each quarter. (Some investors will appraise all their properties every quarter). The properties initially produce net operating income of $1 million per year. Each property has four equally-sized tenants. CIs will be incurred for each tenant evenly over four-year lease terms.

To smooth the drain on cash flow, each investor has chosen to incur a CI equal to 20% of NOI for one tenant in every building each year. Within each year, the CIs are incurred evenly over the four quarters and have a life of four years. It will be assumed further that CIs will *immediately* increase the NOI from the property by 8%, that is, NOI will rise from $62,500 to $67,500. As Fisher [1995] notes, CIs for renovation or expansion of the property are made to increase future NOI, but this immediate change in NOI is made to simplify the analysis. Finally, each investor calculates performance using the NCREIF formulas.

One would expect that the "true" investment performance of these investors should be the same, but in fact the "reported" performance of the individual properties and portfolios will differ (sometimes markedly) from each other. The differences depend upon three factors: (1) the size of the CIs, (2) the accounting method chosen, and (3) the timing of the appraisals versus the occurrence of a CI. This may surprise investors because they have been long told that the current *total* return should be the same using the expense method and capitalization method (and either amortizing or not amortizing) *provided that the market values are determined in the same period*. With a policy

of annual appraisals, however, the ex ante probability of that occurrence is only 25%! Only four possible scenarios out of sixteen would result in the property incurring a CI in the same quarter that the property is appraised. For example, a property could incur a CI in the fourth quarter after being appraised in the first quarter of that year, or incur a CI in the first quarter and be appraised in the fourth quarter, and so on.

In this hypothetical world, we only consider two reporting types of investors: Type B who expenses and Type C who capitalizes. We do this to simplify the presentation, although the authors have calculated the scenario for all five investor types. Moreover, we only focus on the first four years of this analysis, assuming that these economic activities would continue ad infinitum.

Exhibit 3 summarizes the first-year total returns for each of the sixteen properties in each of the two investor types' portfolios. All the returns are calculated according to the NCREIF Property Index formula. Each property represents a particular combination of timing on the CI and appraisal. For example, Property #4 is a property that incurred a CI in the fourth quarter of the year, after it was appraised in the first quarter of that same year. It is obvious that differences in returns are more frequent than similarities.

The two investors would have the same *reported* performance only for those four properties that were appraised in the same quarter that the CI was incurred (#1, 6, 11, and 16).

There is also a symmetry in the direction of effects for those investors who expense versus those who capitalize. If the CI is incurred *after* the property is appraised, the total return is higher for those investors who capitalized. On the other hand, if the CI is incurred *before* the property is appraised, the total return is higher for those investors who expense.

Exhibit 3 also shows the aggregation of these simulations into portfolios for the two investor types. Investors who expense in this hypothetical scenario had returns that are almost 75 basis points *below* those investors who capitalize (and did not amortize). These differences occur despite the fact that all properties and investors experienced the same "true" economic events within the year!

Exhibit 4 shows how these differences are calculated for the two investor types for three of the sixteen properties. The example includes a property that incurred a CI during the same quarter it was appraised (property #16), a property that incurred a CI before it was appraised (property #13), and, finally, a property (property #4) that incurred a CI after it was appraised.

Exhibit 4 attempts to show how the differences in investment returns are the result of accounting and reporting differences, rather than "true" differences in economic performance. For each of the four quarters in this hypothetical year, the table shows the "true" economics that are the same for both investors. It also shows the appraisal and accounting recognition of these economic events. For both investors, Property #4 is appraised in the first quarter, but incurred a CI afterward in the fourth quarter.

In our scenario, the CI immediately increases the NOI of the property. Although the property is valued in the first quarter, the capitalizing investor increases the market value of Property #4 in the fourth quarter by way of the accounting treatment. The expensing investor, on the other hand, recognized this event by lowering the reported income (NCF), but would have to wait until the following year to have the appraiser recognize the increased market value. This explains the reported difference in the two investors' returns for an identical Property #4.

Property #13 incurs its CI in the first quarter, before it is appraised in the fourth quarter. The capitalizing investor recognizes the increased market value in the first quarter, and this impacts the beginning market values of subsequent quarters and therefore its return calculations. The

expensing investor delays recognition of the increased market value until the fourth quarter. In the three prior quarters, the expensing investor's denominator in its return calculations is lower, which raises its returns relative to the capitalizing investor. Both investors report basically identical returns for Property #16 because the CI is incurred in the same quarter as its appraisal. To summarize, the reported differences in returns result from accounting differences exacerbated by the fact that the CI is incurred in a quarter that the property was not appraised.

But Do These Differences Persist Over Time?

One may concede that these differences could exist for one year, on the assumption that everything "washes out" over time. That assumption seems to depend, in part, on the length of time that CIs are being continuously incurred. We continue with the simulation and examine what happens over time. Recall that the investors make CIs in their portfolios for sixteen consecutive quarters. Each improvement results in increased income for four years for each property.

Exhibit 5 displays the annual total returns for each of the investor types for each of the four years and their four year average. This table suggests that differences might persist over a longer period of time. Investors who expense appear to have period returns that are lower than investors who capitalize without amortization, even though the economic events impacting them are not different.

How Could These Differences Arise?

There are differences in *returns* despite the fact that all the properties appraised in the same quarter have the same *market value*. The differences arise in part from the denominator of the NCREIF formula. The 1986 NCREIF survey calculates returns using a different formula with only the beginning market value in the denominator, not the one-half CIs nor the one-third NOI in the NCREIF formula. In the case of the non-NCREIF formula, different accounting methods do produce the same returns. In our example, however, the expensing investor's denominator does not have CIs because they were "buried" in the NCF figure. The timing of the appraisal affects recognition for expensing investors. If the appraisal occurs before the CI, the expensing investors would have to wait until the next year to recognize the increase in market value.

Further simulations could be performed, but would probably add little new information. Harper and Fiacchi [1996] find that there has been little change in NCREIF's reported capital outlays as a percentage of reported NOI and as a percentage of market value over 16 years. In addition, a report prepared for NCREIF by its academic advisor several years ago that indicates that roughly one-half of the CI data fields at the individual property level have non-zero entries. Given that in both the 1986 NCREIF survey and the 1997 STRS of Ohio survey investors who capitalize are in the majority, and that a frequent, seemingly constant, relative amount of capital spending is occurring in the NCREIF Property Index, there might be a bias against investors who expense and compare themselves to investor universes that are dominated by capitalizing firms. The size of the bias is still debatable—even if it exists—because our analysis uses the mean rather than the median or cumulative CI/NOI ratio as Young [1996] suggests.

Are These Reasonable Results?

Other simulations indicate that the size of these differences is positively related to the size of the ratio of CI to NOI. Is the level of that ratio (20%) a reasonable estimate in our simulation? That,

too, is debatable. Fisher [1995] notes that routine CIs (including tenant improvements) amount to about 2% of the property value of a mall per year. Harper and Fiacchi calculates that the unadjusted average CI/NOI ratio amounts to 36.7% for the entire NPI over a sixteen-year period. Based upon the entire historical data base, our assumed CI/NOI ratio is about one standard deviation *below* the average. Young [1996] demonstrates that the median is a more appropriate measure, and that cumulative measures are superior. We believe that the level chosen for this study is conservative and representative of a broad cross-section of commercial real estate.

Conclusions

This article demonstrates that even when the fundamental economic events are the same, returns may differ across properties within an investor's portfolio and between investor portfolios due to choices in the accounting treatment of CIs. The timing of the valuation of a property in comparison to the occurrence of the CIs exacerbates these differences. These differences can be quite large at certain points in time and may persist as smaller differences across time. This might suggest that, given the "steady" relative level of CIs in the NPI, analysts should carefully consider their conclusions when using a performance benchmark.

Given that in 1997 only a small portion of the NCREIF data contributors expense rather capitalize, are these findings relevant? These issues are primarily a concern for investors and managers who expense rather than capitalize CI and for capitalizing investors who are comparing themselves against a subset of the NPI. In some instances, these disaggregation requests could have a large proportion of expensing properties. Moreover, the 1986 study finds 25% of the NCREIF membership expensed and therefore this problem may be more of an issue when analyzing the NPI over longer periods of time.

While the "longer run" differences are not very large in this study, more research needs to be done on this issue. The good news is that since capitalizing investors dominate the aggregate NPI, they do not have to worry as much about reporting differences due to the presence of expensing investors. On the other hand, since expensing investors are in the minority, they probably would underperform the NPI if all else were equal.[7] Until further research is done on the NCREIF data base or another investor portfolio, analysts may be required to use assumptions and approximations to recast the data into formats that allow better comparability. Fisher [1995] and Young et al. [1995, 1996] suggest alternative measures of real estate performance, including those that use NCF or distributable cash flow. Ignoring tax effects, reported NCF and distributable cash flow if fully adjusted by the amount of capital improvements should be immune to the choice of accounting treatment of CIs.

[7] From Exhibit 3, expensing investors' negative spreads against capitalizing investors resulted from a property incurring a CI after it was appraised. These will outweigh the positive spreads resulting from the property incurring a CI before it was appraised.

References

Fisher, Jeffrey D. "Alternative Measures of Real Estate Performance: Exploring the Russell-NCREIF Data Base." *Real Estate Finance*, Vol. 11 No. 3 (Fall 1994), pp. 79-87.

_____. "Cash Flow Versus NOI: An Analysis of Capital Expenditures For Malls." *Real Estate Finance*, Vol.12 No. 2 (Summer 1995), pp. 32-40.

Harper, Douglas J., and Fiacchi, Tony. "A Capital Idea: Toward a Better Understanding of the Importance of Property Expenditures." *Real Estate Finance*, Vol. 13 No. 1 (Spring 1996), pp. 95-99.

National Council of Real Estate Investment Fiduciaries. "Current Value Reporting By Real Estate Fiduciary Managers." *Real Estate Accounting and Taxation*, (Fall 1988), pp.36-46.

White, Gerald I., Sondhi, Ashwinpaul C., and Fried, Dov. *The Analysis and Use of Financial Statements.* New York: John Wiley and Sons, Inc., 1994.

Young, Michael S. "Capital Expenditures: Be Careful How You Count." *Journal of Real Estate Portfolio Management*, Vol. 2 No. 2 (1996), pp. 169-174.

Young, Michael S., David M. Geltner, Willard McIntosh, and Douglas M. Poutasse. "Defining Commercial Property Income and Appreciation Returns for Comparability to Stock Market-Based Measures." *Real Estate Finance*, Vol 12 No. 2 (Summer 1995), pp. 19-30.

_____. "Understanding Equity Real Estate Performance: Insights from the NCREIF Property Index." *Real Estate Review*, Vol. 25 No. 4 (Winter 1996), pp. 4-16.

Appendix

Name of Organization: _____
Contact Person: _____

The State Teachers Retirement System of Ohio is surveying the NCREIF data contributors with regards to their performance reporting. This survey consists of only 10 questions and will take only a few minutes of your time. When the survey is completed, STRS will share the results of the survey with the respondents. Consistent with NCREIF's long-standing confidentiality policies, no individual responses will be published or shared with anyone other than the NCREIF Director of Research.

1. In submitting your data to NCREIF, which of the following most accurately describes your data with regards to income?
   a. net operating income
   b. net cash flow (also referred to as net cash income or "below-the-line")

4. Which (if any) of the following deducted *before* arriving at the income you report to NCREIF?
   a. long-lived capital improvements
   b. short-lived capital improvements
   c. tenant improvements or tenant allowances
   d. leasing commissions
   e. none of the above

3. Do you capitalize or expense capital improvements?
   a. capitalize (add the expenditure to the market value of the property)
   b. expense (reduce income by the amount of the capital improvement)

4. What criteria do you use to determine whether to add a capital improvement to the market value of your investments (e.g., size of expenditure or type of expenditure)?

5. If you add the amount of a capital improvement to market value, do you amortize that amount. That is, do you treat the capital improvement as a recurring expense over an extended period?
   a. yes
   b no

6. If you answered "yes" to question 5, what is the period over which you amortize?

Since terminology is often a problem, please consider the following simple example for questions #7-10 to ensure that we understand your responses and to clarify our questions. The example assumes no external appraisal during the quarter.

Beginning of quarter market value	$1,000,000
End of quarter market value	1,000,000
Effective Gross Income	150,000
Operating Expenses	50,000
Net Operating Income	100,000
Tenant Allowance	1,000
Leasing Commission	1,000
Building Expansion	3,000
5-Year Lease	
10-Year Building Life	

7. Which line would you report to NCREIF for income?

Effective Gross Income	$150,000
Operating Expenses	50,000
Net Operating Income	$100,000(a)
Tenant Allowance	1,000
Leasing Commission	1,000
Building Expansion	3,000
Net Cash Flow	$95,000(b)

8. Assuming no external valuation, which ending quarter value would you submit to NCREIF?
   a. $1,005,000 = ($1,000,000 + $5,000)
   b. $1,000,000

9. If you chose "a" in the last question, which of the following would be the amortization in the next period?
   a. $75 = $3,000 _ (10 years * 4 quarter)
      +$100 = ($1,000 + $1,000) _ (5 years * 4 quarter)
      $175
   b. present value of $75 annuity over 40 quarters plus present value of $100 annuity over 20 quarters.
   c. I do not amortize capital expenditures.

10. Which of the following would best indicate how you would calculate the income and appreciation returns? *The formulas all use the official NCREIF formulas. They differ ONLY in the accounting values used in the calculations.* If none of these apply, please show your own calculation.

	Income Return	Appreciation Return
A	100,000 1,000,000 + (1/2*5,000) -(1/3*100,000)	1,000,000-(1,000,000+5,000) 1,000,000 + (1/2*5,000) -(1/3*100,000)

This investor reports *net operating income* and capital improvements and *expenses* his/her capital improvements, tenant allowances, etc.

	Income Return	Appreciation Return
B	95,000 1,000,000 + (1/2*0) -(1/3*95,000)	1,000,000-(1,000,000) 1,000,000 + (1/2*0) -(1/3*95,000)

This investor reports *net cash flow*, but because he/she *expenses* capital improvements and the like does not have capital improvement figures to submit.

	Income Return	Appreciation Return
C	100,000 1,000,000 + (1/2*5,000) -(1/3*100,000)	1,005,000-(1,000,000+5,000) 1,000,000 + (1/2*5,000) -(1/3*100,000)

This investor reports *net operating income* and capital improvements. He/she *capitalizes* capital improvements, etc.

D. None of the above. Please show your own calculation.

Exhibit 1
1997 Survey Results

Investor Type		Responses	Percent
Type A:	Expenses CI and reports NOI	3	7.1%
Type B:	Expenses CI and reports net cash flow	2	4.8
Type C:	Capitalizes CI, does not amortize, and reports NOI	33	78.6
Type D:	Capitalizes CI, amortizes, and reports NOI	1	2.4
Type E:	Capitalizes CI, does not amortize, and appraises every property every quarter	3	7.1
Totals		42	100.0%

Exhibit 2
1997 Survey: Capitalization Criteria

Criteria Used By Capitalizing Firms	Responses
Size of Expenditure	24
>$1,000	5
>$2,500	1
>$5,000	2
>$15,000	1
Type of Item:	16
Expenditure Increases Property Market Value	6
In Accordance with GAAP	4
Extends Life of Property or Exceeds 1 Year	3
All Expenditures are Capitalized	3
Anticipated in Cash Flow Analysis/Appraisal	2
In Accordance with IRS	1
Determined by Client	1

Exhibit 3
Hypothetical First Year Returns

Property Number	Quarter of Valuation	CI	Investor Type Expenser	Capitalier
1	1	1	10.51%	10.50
2	1	2	8.46	10.50
3	1	3	8.40	10.50
4	1	4	8.35	10.50
5	2	1	10.53	10.50
6	2	2	10.51	10.50
7	2	3	8.40	10.50
8	2	4	8.35	10.50
9	3	1	10.59	10.50
10	3	2	10.53	10.50
11	3	3	10.51	10.50
12	3	4	8.35	10.50
13	4	1	10.64	10.50
14	4	2	10.59	10.50
15	4	3	10.53	10.50
16	4	4	10.51	10.50
Portfolio			9.74%	10.50%

Exhibit 4
Source of Differences in Returns

		Expensing Investor Property			Capitalizing Investor Property		
Quarter		4	13	16	4	13	16
1	*Economics (the same for both):*						
	Beginning Market Value	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
	Ending Market Value	10,000,000	10,200,000	10,000,000	10,000,000	10,200,000	10,000,000
	CI	-	200,000	-	-	200,000	-
	NOI	250,000	255,000	250,000	250,000	255,000	250,000
	Appraisal:						
	Beginning Market Value	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
	Ending Market Value	10,000,000	10,000,000	10,000,000	10,000,000	10,200,000	10,000,000
	Accounting:						
	Reported Income	250,000	55,000	250,000	250,000	255,000	250,000
	Reported CI	-	-	-	-	200,000	-
	Reported Appreciation	-	-	-	-	-	-
	Income Return	2.52%	0.55%	2.52%	2.52%	2.55%	2.52%
	Appreciation Return	-	-	-	-	-	-
	Total Return	2.52%	0.55%	2.52%	2.52%	2.55%	2.52%
2	*Economics (the same for both):*						
	Beginning Market Value	10,000,000	10,200,000	10,000,000	10,000,000	10,200,000	10,000,000
	Ending Market Value	10,000,000	10,200,000	10,000,000	10,000,000	10,200,000	10,000,000
	CI	-	-	-	-	-	-
	NOI	250,000	255,000	250,000	250,000	255,000	250,000
	Appraisal:						
	Beginning Appraised Value	10,000,000	10,000,000	10,000,000	10,000,000	10,200,000	10,000,000
	Ending Appraised Value	10,000,000	10,000,000	10,000,000	10,000,000	10,200,000	10,000,000
	Accounting:						
	Reported Income	250,000	255,000	250,000	250,000	255,000	250,000
	Reported CI	-	-	-	-	-	-
	Reported Appreciation	-	-	-	-	-	-
	Income Return	2.52%	2.57%	2.52%	2.52%	2.52%	2.52%
	Appreciation Return	-	-	-	-	-	-
	Total Return	2.52%	2.57%	2.52%	2.52%	2.52%	2.52%

Exhibit 4
Source of Differences in Returns (continued)

Quarter		Expensing Investor Property			Capitalizing Investor Property		
		4	13	16	4	13	16
3	*Economics (the same for both):*						
	Beginning Market Value	10,000,000	10,200,000	10,000,000	10,000,000	10,200,000	10,000,000
	Ending Market Value	10,000,000	10,200,000	10,000,000	10,000,000	10,200,000	10,000,000
	CI	-	-	-	-	-	-
	NOI	250,000	255,000	250,000	250,000	255,000	250,000
	Appraisal:						
	Beginning Appraised Value	10,000,000	10,000,000	10,000,000	10,000,000	10,200,000	10,000,000
	Ending Appraised Value	10,000,000	10,000,000	10,000,000	10,000,000	10,200,000	10,000,000
	Accounting:						
	Reported Income	250,000	255,000	250,000	250,000	255,000	250,000
	Reported CI	-	-	-	-	-	-
	Reported Appreciation	-	-	-	-	-	-
	Income Return	2.52%	2.57%	2.52%	2.52%	2.52%	2.52%
	Appreciation Return	-	-	-	-	-	-
	Total Return	2.52%	2.57%	2.52%	2.52%	2.52%	2.52%
4	*Economics (the same for both):*						
	Beginning Market Value	10,000,000	10,200,000	10,000,000	10,000,000	10,200,000	10,000,000
	Ending Market Value	10,200,000	10,200,000	10,200,000	10,200,000	10,200,000	10,200,000
	CI	200,000	-	200,000	200,000	-	200,000
	NOI	255,000	255,000	255,000	255,000	255,000	255,000
	Appraisal:						
	Beginning Appraised Value	10,000,000	10,000,000	10,000,000	10,000,000	10,200,000	10,000,000
	Ending Appraised Value	10,000,000	10,200,000	10,200,000	10,200,000	10,200,000	10,200,000
	Accounting:						
	Reported Income	55,000	255,000	55,000	255,000	255,000	255,000
	Reported CI	-	-	-	200,000	-	200,000
	Reported Appreciation	-	200,000	200,000	-	-	-
	Income Return	0.55%	2.57%	0.55%	2.55%	2.52%	2.55%
	Appreciation Return	0.00%	2.02%	2.00%	0.00%	0.00%	0.00%
	Total Return	0.55%	4.59%	2.55%	2.55%	2.52%	2.55%
	Yearly Income Return	8.35%	8.51%	8.35%	10.50%	10.50%	10.50%
	Yearly Appreciation Return	0.00%	2.02%	2.00%	0.00%	0.00%	0.00%
	Yearly Total Return	8.35%	10.64%	10.51%	10.50%	10.50%	10.50%

Exhibit 5
Differences Across Time

	Expensing Investor	Capitalizing Investor
Year 1	9.74%	10.50%
Year 2	10.59	10.50
Year 3	10.59	10.50
Year 4	10.58	10.50
Four Year Average	10.37%	10.50%