4Q2012 IAC Meeting Materials

IAC Meeting – February 19, 2013

Alternative Investment Presentation on Open-End Core Real Estate

Analysis of Open-End Core Real Estate Fund Holdings

Alternative Investments Program

Minnesota State Board of Investment

Agenda

- Introduction, Background and History
- Goals and Expectations
- Evaluation of Open-End Funds' Performance vs. Expectations
- Conclusion and Recommendation

Introduction, Background & History

- SBI Staff recommended Real Estate be included in the Combined Funds' Portfolio in 1981
- Why?
  - Exhibited Correlation with Inflation (Inflation Hedge)
  - Added diversification to the Combined Funds
  - Real Estate had exhibited strong returns over the previous 10-20 year periods

Introduction, Background & History

- In 1981, the SBI committed to 3 Open-End Core Real Estate Funds[1]
  - Aetna (now UBS-Trumbull Property Fund)
  - Equitable (now Morgan Stanley Prime Property
  - Prudential (PRISA)
- Today, these three investments are worth $565 million and make up 48% of the Real Estate allocation, or1.2% of the total Combined Funds
  - Total SBI Real Estate portfolio was $1.177 Billion as of June 30, 2012, or 2.5% of the Combined Funds

[1]PRISA investment was sold in 1989, then inherited via Minneapolis Police Retirement Fund merger with PERA on 12/31/11.

Goals and Expectations

1. Achieve immediate access to the asset class through high quality, nearly-fully leased assets
2. Diversify the Combined Funds
3. Dampen the volatility of the Combined Funds
4. Achieve the SBI's long-term rate of return expectation for its Real Assets portfolio of 8% or better (5% or better in real terms)
5. Serve as an inflation hedge

Evaluation of Goal Satisfaction

- Goal #1: Achieve immediate access to the asset class
  - Open-End feature is desirable to alternative investment portfolios that are building their allocation because of the liquidity they offer
  - This feature was desirable to the SBI when the investment was made, but is no longer relevant
  - More recently, SBI has focused on closed-end, non-core real estate investing to take advantage of illiquidity premiums
    - Opportunistic and Value-added strategies
- **Bottom line: Goal was achieved, but is no longer a relevant benefit**

Evaluation of Goal Satisfaction

- Goal #2: Diversify the Combined Funds
  - The Alternative Investments Program seeks assets that will diversify the Combined Funds
  - The Open-End Real Estate (OERE) Funds have largely done that
- **Bottom line: The OERE Funds diversified the Combined Funds**

Correlation of OERE Funds and Other SBI Asset Classes to the Combined Funds, 3Q1987 – 2Q2012	SBI Combined Funds	SBI Alternatives
NFI - ODCE Index	0.15	0.55
Prime Property	0.06	0.54
UBS - Trumbull	0.15	0.52
PRISA	0.13	0.57
SBI Alternatives	0.07	--
SBI Domestic Equity	0.99	0.01
SBI Fixed Income	0.15	-0.05
SBI Short Term	0.03	0.04

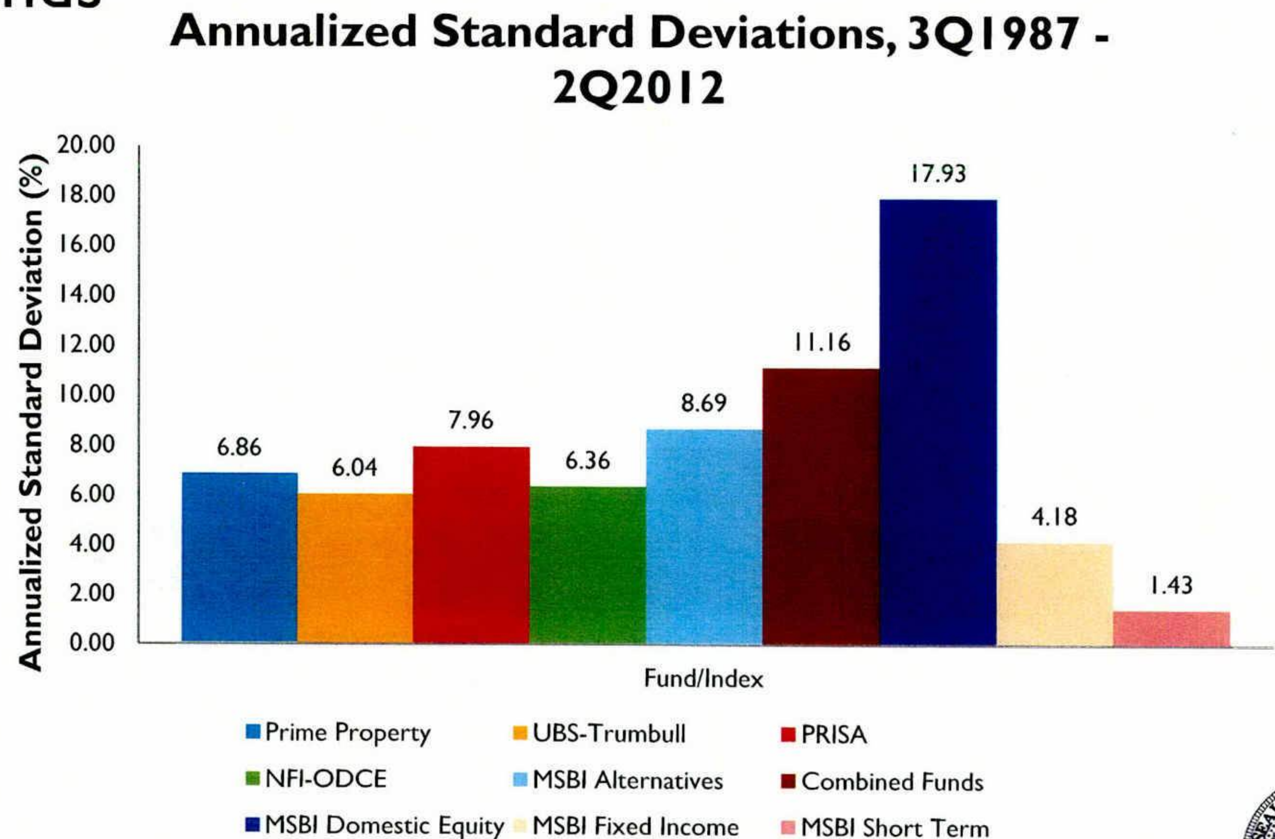
Evaluation of Goal Satisfaction

- Goal #3: Dampen the volatility of the Combined Funds
  - All three OERE Funds have lower annualized standard deviation measures than the Combined Funds over 25 years
  - However, the OERE Funds have proven to be very expensive volatility dampeners, as they exhibit lower Sharpe ratios than the Alternative Investments aggregate

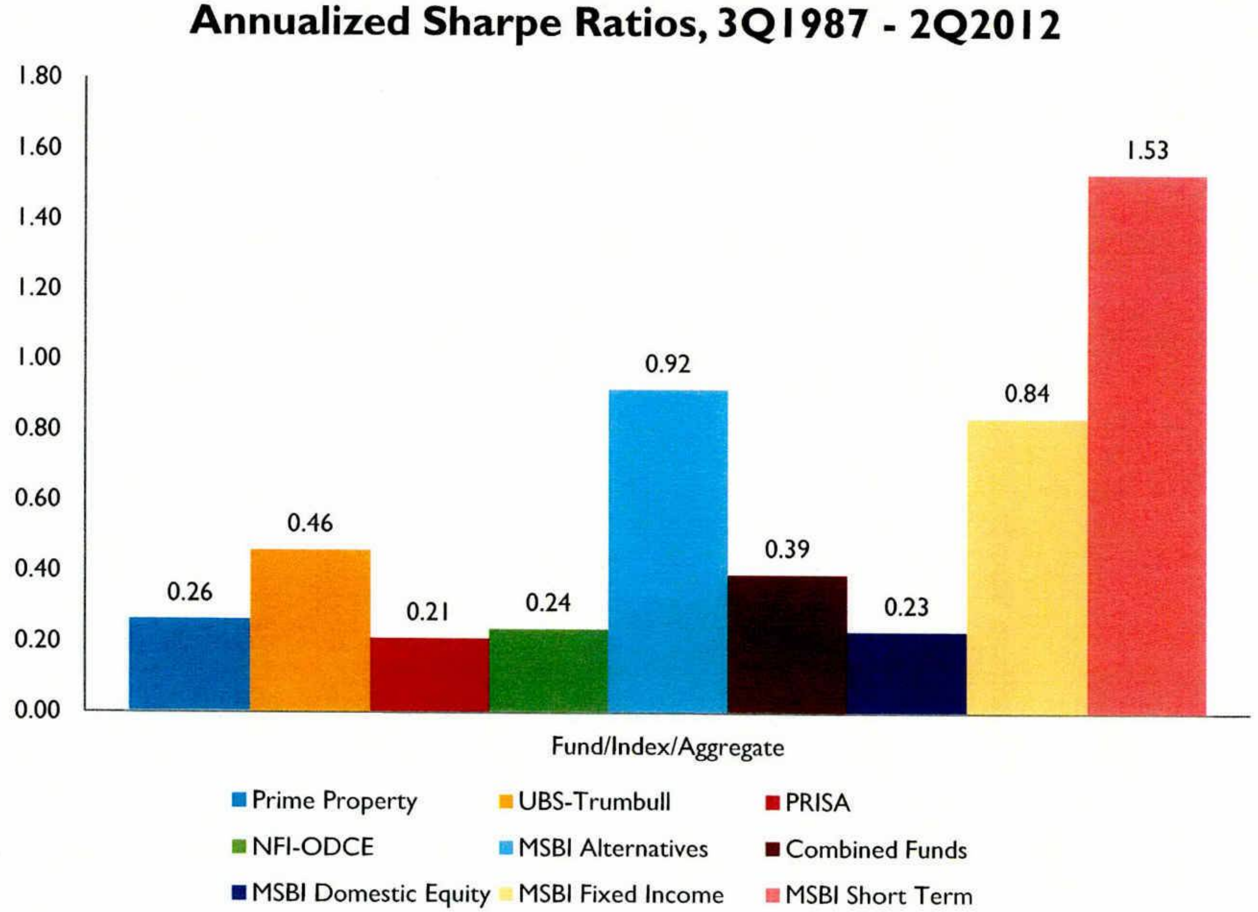
- **Bottom line: The OERE Funds have reduced Combined Funds' volatility, but have given up risk-adjusted return**

Evaluation of Goal Satisfaction

- Goal #3: Dampen the Volatility of the Combined Funds



Evaluation of Goal Satisfaction



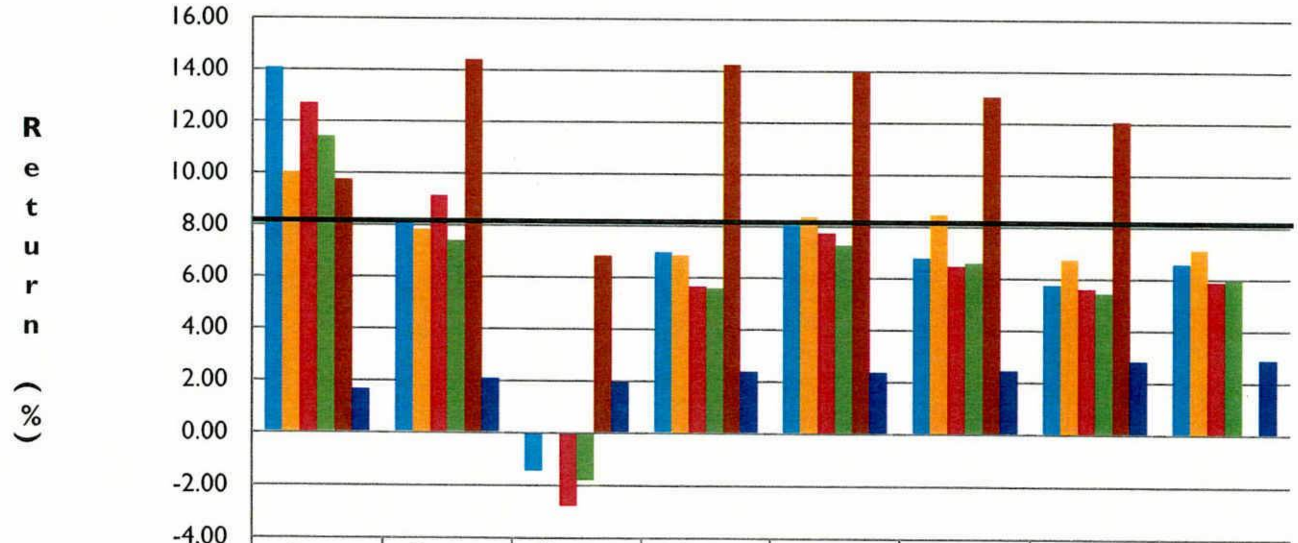
Evaluation of Goal Satisfaction

- Goal #4: Achieve long-term rates of return of 8% nominal, 5% real
- **Bottom line: The OERE Funds have failed to achieve their rate of return hurdles**

Evaluation of Goal Satisfaction

- Goal #4: Achieve long-term rates of return of 8% nominal, 5% real

Returns through June 30, 2012

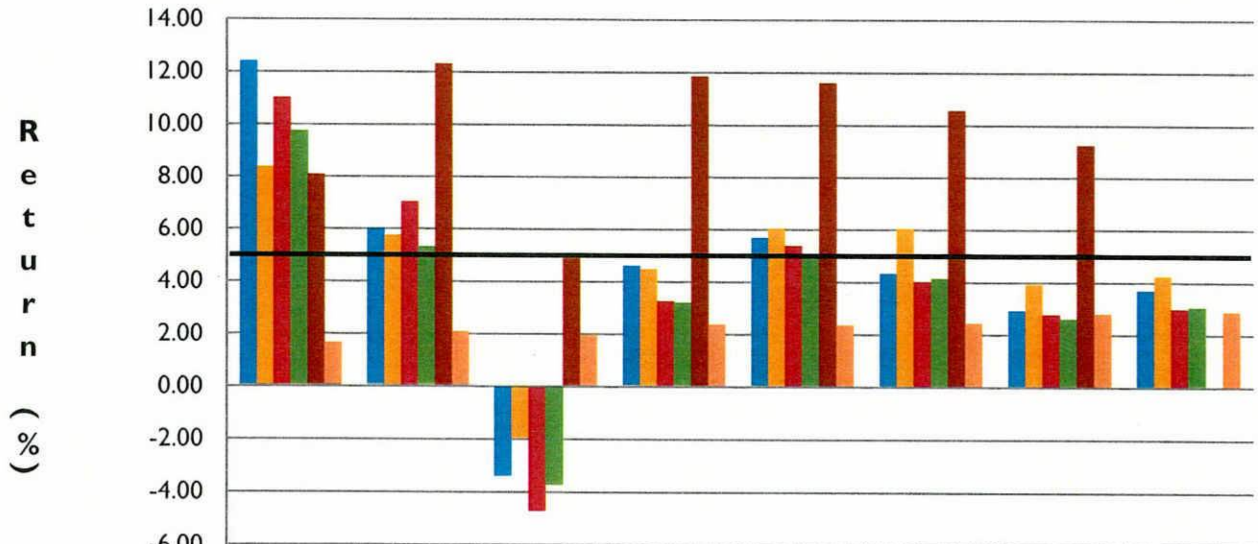


	1 year	3 years	5 years	10 years	15 years	20 years	25 years	30 years
Prime Property	14.06	8.05	-1.46	6.97	8.04	6.79	5.75	6.57
UBS-Trumbull	10.04	7.84	-0.02	6.87	8.39	8.50	6.76	7.14
PRISA	12.70	9.13	-2.77	5.64	7.74	6.47	5.60	5.89
NFI-ODCE	11.40	7.40	-1.79	5.58	7.28	6.59	5.44	5.95
MSBI Alternatives	9.75	14.40	6.84	14.24	13.98	13.04	12.08	
Inflation (CPI)	1.66	2.09	1.95	2.39	2.37	2.46	2.83	2.89

Evaluation of Goal Satisfaction

- Goal #4: Achieve long-term rates of return of 8% nominal, 5% real

Inflation-adjusted Returns, through June 30, 2012



	1 year	3 years	5 years	10 years	15 years	20 years	25 years	30 years
Prime Property	12.40	5.96	-3.41	4.58	5.68	4.33	2.93	3.69
UBS-Trumbull	8.38	5.76	-1.97	4.49	6.02	6.04	3.93	4.26
PRISA	11.03	7.05	-4.72	3.26	5.38	4.02	2.78	3.00
NFI-ODCE	9.74	5.31	-3.75	3.19	4.91	4.14	2.61	3.06
MSBI Alternatives	8.09	12.31	4.89	11.85	11.61	10.58	9.25	
Inflation (CPI)	1.66	2.09	1.95	2.39	2.37	2.46	2.83	2.89

Evaluation of Goal Satisfaction

- Goal #5: Serve as an Inflation Hedge
- **Bottom line: OERE Funds have provided little hedge against inflation, but have been the best inflation hedges in the Combined Funds portfolio**

Correlation with Inflation	25 year Correlation Coefficient
Prime Property	0.08
UBS - Trumbull	0.14
PRISA	0.21
NFI - ODCE Index	0.19
SBI Alternatives	0.15
SBI Combined Funds	0.07
SBI Domestic Equity	0.08
SBI Fixed Income	-0.07
SBI Short Term	0.17
95% Statistical Significance Level	**+/-0.165**

Conclusion and Recommendation

- The OERE Funds inability to meet long-term rate of return expectations overwhelms the diversification benefits of holding the three OERE Funds.
- The Alternative Investments Program has ample opportunities within its domain to achieve similar or better diversification and inflation hedges, while adding total and risk-adjusted return
- Staff recommends selling the three OERE Funds over a three-year period and reinvesting the proceeds into other areas on the Alternative Investments Program
    - Private Equity, Resource, Yield-Oriented, and Closed-End Real Estate

Questions?

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Introduction

The SBI's alternative investments allocation was established to diversify the overall Combined Funds and provide high total rates of return. The Combined Funds are particularly well-suited for alternative investments given its long-term investment horizon. At the inception of the SBI's alternative investment program in 1981, real estate as an asset in a broadly diversified institutional portfolio had exhibited characteristics which made it a desirable investment option for the SBI. These characteristics included the ability of real estate to provide additional diversification, an inflation hedge and attractive long-term rates of return. The determination was made by the SBI to make initial investments in open-end core real estate funds which would provide instant access to known, diversified, high quality real estate assets. These initial investments were made in Aetna's Real Estate Separate Account (now named UBS-Trumball Property Fund), Equitable's Separate Account 8 (now named Morgan Stanley Prime Property Fund), and Prudential's PRISA fund[1]. These open-end core real estate fund investments formed the initial foundation of the SBI's alternative investment allocation. The three investments were with, at the time, three of the largest and most established real estate funds of their kind in the market.

Today, the alternative investment allocation consists of these same three open-end real estate funds in addition to 160 closed-end funds in a wide variety of alternative investment strategies, including real estate, private equity, yield-oriented investments and resource investments. All together, the Combined Funds' open-end real estate investments are valued at $565 million as of June 30, 2012, compared to total alternative investments of $7.4 billion.

[1] The SBI's PRISA investment was sold in 1989. The SBI inherited a $9 million share of PRISA on December 31, 2011 when the Minneapolis Police Relief Association merged with PERA. Staff has obtained net return series data from all three open-end fund managers.

Exhibit A shows, as of June 30, 2012, the market value of each of the SBI's three open-end real estate funds.

Exhibit A

Fund	Market Value	Age (Yrs)
PRISA Real Estate Fund	$9,382,881	0.50
Prime Property Fund	$258,744,100	30.72
UBS- Trumbull Property Fund	$297,306,098	30.17
Total	**$565,433,079**	

With the build-out of the SBI's alternative investment portfolio over the last 30 years, it is appropriate to re-examine the role and performance of the SBI's initial real estate investments in the three open-end core real estate funds. This paper analyzes the fit of open-end core real estate fund investments within the SBI's current alternative investment program by examining the performance of open-end core real estate funds relative to the SBI's goals and expectations.

Goals and Expectations of the SBI for Open-end Core Real Estate Funds

The SBI invested in open-end core real estate funds with the following goals and expectations:

1. Achieve immediate access to the asset class through high quality, nearly fully-leased assets
2. Diversify the Combined Funds
3. Dampen the volatility of the Combined Funds
4. Achieve the SBI's expected long-term rate of return of 8% or better (5% or better in real terms) for its Real Assets portfolio
5. Serve as an inflation hedge

The achievements of these goals are evaluated separately and the conclusion and staff recommendation takes into account the totality of the open-end funds' achievements.

☑ **GOAL # 1: Achieve immediate access to the asset class through high quality, nearly fully-leased assets**

The initial investment in open-end core real estate funds achieved the goal of providing immediate access to the asset class in high quality, nearly fully-leased assets. This was accomplished by the open-end, commingled nature of the three funds, which allows investors to deposit and withdraw funds as they see fit. However, this goal is more important for new alternative investment programs than it is for a large, mature alternative investment program such as the SBI's. The reason for this distinction is that the SBI's Alternative Investments portfolio has been built out over the last 30 years and now consists of a diversified set of asset classes, including real estate, and investment strategies. So since the SBI's Alternative Investments portfolio already holds diversified real estate assets, immediate access to the asset class through large, open-end funds is not as highly valued as it would have been when the Alternatives portfolio was being built out. As explained below, the characteristics of open-end core investments, while making them attractive for beginning investment programs, may not provide them with the higher investment returns of closed end, non-core investments.

The open-end feature of the SBI's open-end core real estate investments means that the investment is liquid. Investors can generally deposit and withdraw funds as they see fit, subject to notice requirements to the fund managers and availability of cash flow from investment income and sales and/or new investment contributions from investors.

In contrast, the closed-end feature of the rest of the SBI's alternative investments means that the investor commits a specified amount to a fund which is then invested over the investment period of the fund. Liquidity in these types of funds is only available when the fund manager begins selling the investments and begins to distribute the proceeds to its investors. These funds often take 10 to 15 years to fully liquidate.

In general, closed-end funds enable a fund manager to execute fund strategy free of the potential need to manage unpredictable withdrawals and contributions. Investors in closed-end funds often expect higher total rates of return in exchange for less liquidity. Because of the maturity of the SBI's Alternative Investments portfolio, the SBI can afford to trade liquidity for the potential of higher total rates of return.

The strategy of the SBI's open-ended fund investments is known as core real estate investing. "Core real estate" is not universally defined, but is generally known as high quality, nearly fully-leased assets in major metropolitan areas in the apartment, office, retail, industrial, and hotel sectors. Fund returns are derived from lease income and property value appreciation. These properties generate a large portion of their investment return from income generated from the underlying leases, which can offer investors inflation protection. Real estate managers can, in most cases, adjust lease rates to counter the effects of inflation on operating costs. Price appreciation of the properties is expected to be a secondary contributor to returns. Core real estate managers have a smaller impact on property values because values are largely a function of the overall market.

The strategy for the SBI's other alternative investments, including real estate, generally involves investing in non-core investment strategies such as value-added and opportunistic strategies. For example, in the case of real estate, value-added managers seek to acquire similar asset types as core strategy managers—apartments, retail centers, industrial properties, and office buildings—except they typically acquire the assets at a discount because the assets are less than fully leased and therefore do not fit in the core strategy. The "value added" lies in the managers' ability to refurbish and update the property and then lease-up the property, thereby making it an attractive, higher return potential investment. Opportunistic strategies may pursue unique opportunities in which a property is in financial distress, its owners are willing to sell quickly, or there are development opportunities, often resulting in deeply discounted pricing.

In general, in contrast to the core investment strategy, the non-core fund strategy enables a fund manager to execute a fund strategy in which price appreciation above the market level is expected to be the primary contributor to returns. Non-core strategies may introduce more operational and execution challenges and may involve higher uses of leverage than core investing, but may earn higher rates of return if executed successfully.

☑ GOAL #2: Diversify the Combined Funds

A measure of successfully achieving this goal is a correlation coefficient that is strongly negatively correlated with the overall Combined Funds. Depending on the amount of data available, a strong negative correlation could be defined as -0.5 or less. **Exhibit B** shows the correlations of the three open-end real estate funds (OERE Funds) and other Combined Funds asset classes with the overall Combined Funds, as well as the alternative investments component of the Combined Funds, over 25 years through June 30, 2012[2]. The National Council of Real

[2] The Alternative Investments were not aggregated for the purposes of performance measurement until January 1986. Therefore Goals 2, 3, 4 and 5 will use data beginning in 3Q1987 to obtain 25 year numbers, thus allowing comparisons to the alternative investments aggregate.

Estate Investment Fiduciaries' Fund Index – Open End Diversified Core Equity (NFI-ODCE)[3] is also displayed for benchmarking purposes. This index is widely accepted and employed as a benchmark for real estate funds generally, but particularly for open-end real estate funds.

Exhibit B

Correlation of OERE Funds and Other SBI Asset Classes to the Combined Funds, 3Q1987 – 2Q2012	SBI Combined Funds	SBI Alternatives
NFI - ODCE Index	0.15	0.55
Prime Property	0.06	0.54
UBS - Trumbull	0.15	0.52
PRISA	0.13	0.57
SBI Alternatives	0.07	--
SBI Domestic Equity	0.99	0.01
SBI Fixed Income	0.15	-0.05
SBI Short Term	0.03	0.04

Prime Property, UBS-Trumbull and PRISA have correlation coefficients with the Combined Funds of 0.06, 0.15, and 0.13, respectively. A 95% confidence interval indicates that these correlation coefficients between -0.165 and 0.165 are statistically insignificant. This means that all three open-end real estate funds have no discernible correlation to the Combined Funds, indicating they have provided a diversification effect to the overall Combined Funds portfolio. The Alternatives portfolio shows slightly lower correlations to the Combined Funds relative to the three open-end funds, on average. This indicates that the Alternatives portfolio has been able to provide similar, if not better, diversification benefits relative to the three open-end real estate funds.

[3] For details of the NFI-ODCE index, see Appendix 2. Net returns for this index were provided by Callan Associates.

☑ **GOAL #3 : Dampen the volatility of the Combined Funds**

A third expectation of the core real estate funds is that they would provide lower volatility rates of return so as to reduce the overall volatility of the Combined Funds. A comparison of the standard deviations of the three open-end funds to that of the Combined Funds and their component asset classes over the same long-term time period will show the effectiveness of the open-end funds as volatility dampeners. **Exhibit C** displays these volatility figures, along with that of the NFI – ODCE Index.

Exhibit C

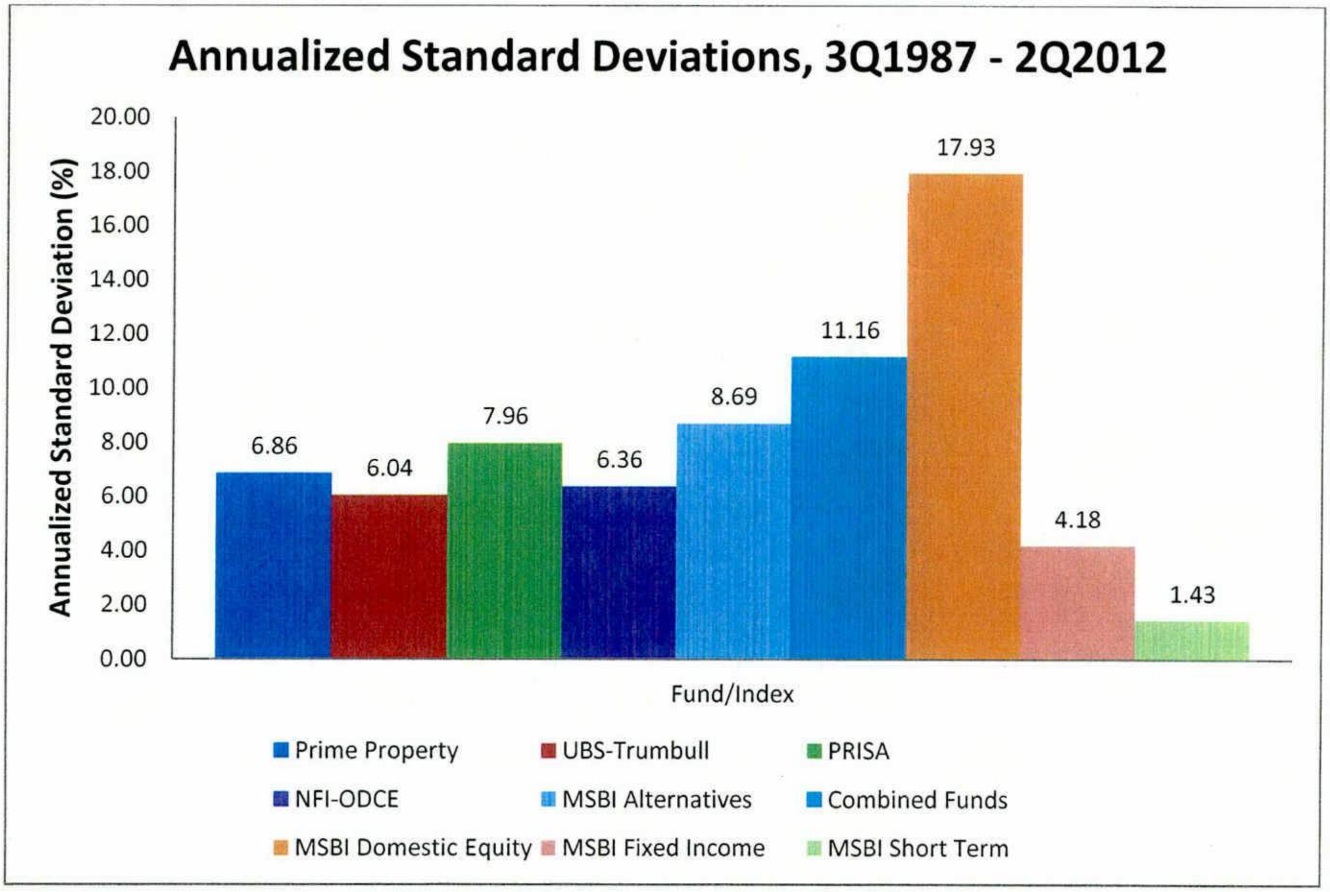
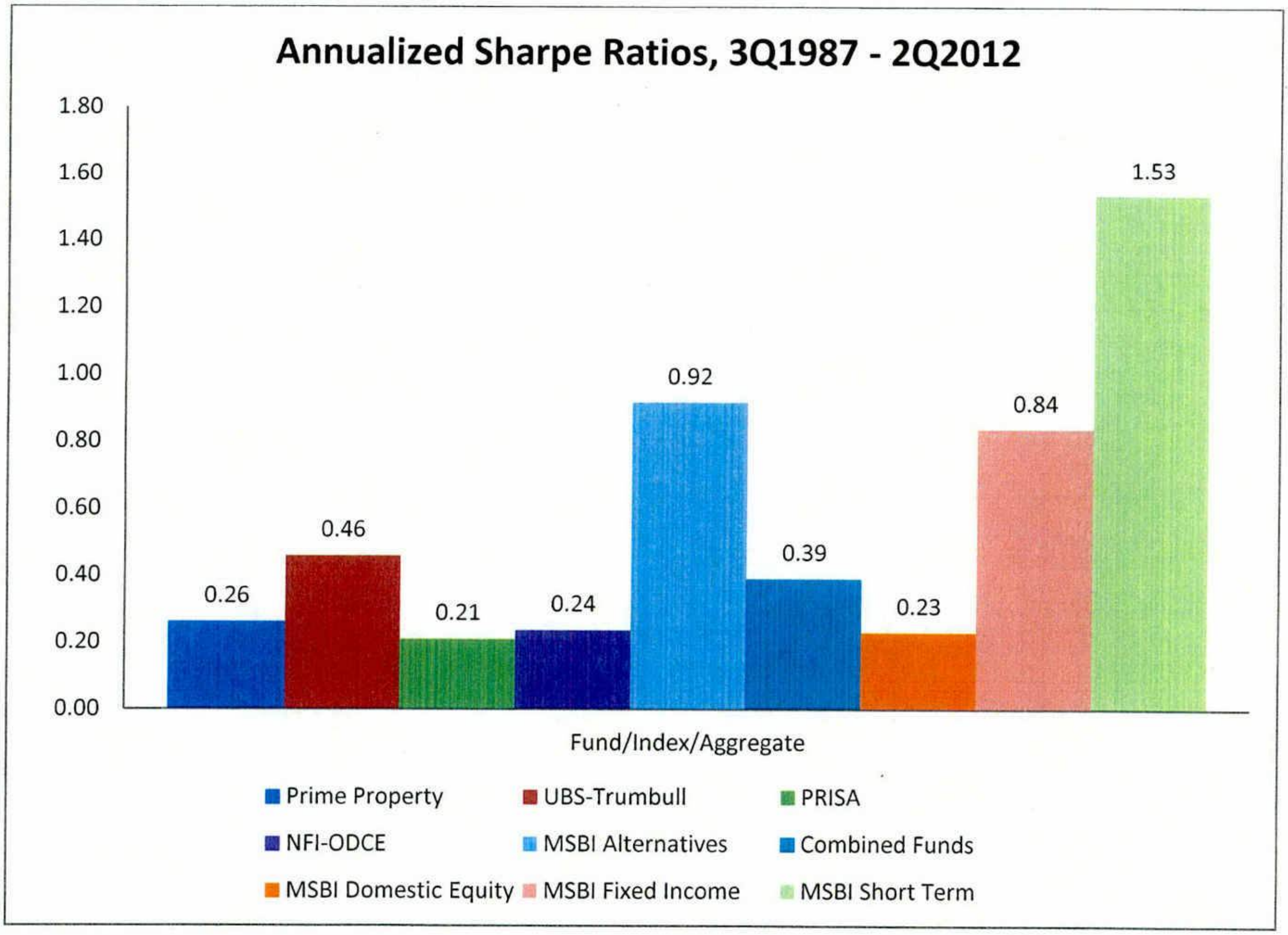


Exhibit C shows that the Alternative Investments aggregate has dampened the Combined Funds' volatility, though not to the extent of the open-end real estate funds.

Exhibit D shows the risk-adjusted returns (Sharpe ratios) of the open-end real estate funds and the various Combined Funds' asset classes[4]. Only UBS produces a Sharpe ratio in excess of that of the Combined Funds. However, none of the open-end real estate funds have produced risk-adjusted returns of the magnitude generated by the Alternative Investments aggregate.

Exhibit D



Taken together, Exhibits C and D indicate that even though the Alternative investments aggregate generates slightly more volatility than the open-end real estate funds, the Alternative

[4] For an explanation of Sharpe ratios and additional analysis, see Appendix 3.

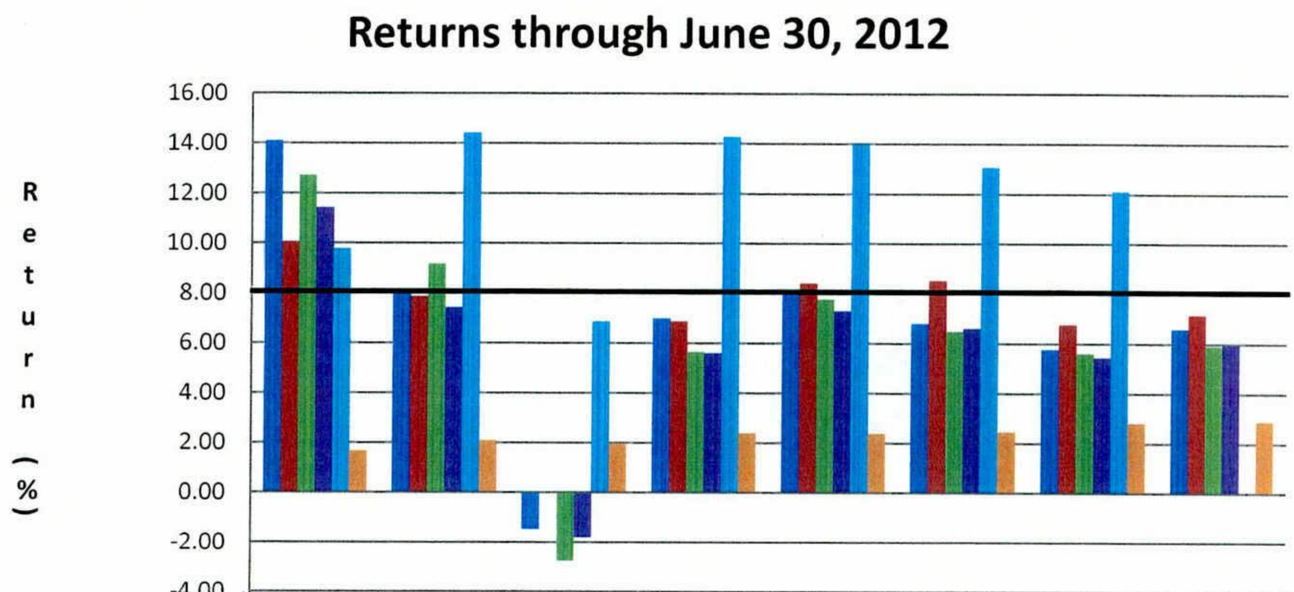
investments aggregate has rewarded the overall Combined Funds with a generous risk-return trade-off relative to the open-end real estate funds.

☒ **GOAL #4: Achieve the SBI's expected long-term rate of return of 8% or better (5% or better in real terms) for its Real Assets portfolio**

The SBI real assets component (of which real estate is a part) has a stated long-term rate of return assumption of 8% (5% on a real return basis). This return assumption applies to all types of real asset investments considered by the SBI. Staff assembled 30 years of return data[5] to judge the long-term performance of the open-end real estate funds. **Exhibit E.1** displays the time-weighted *nominal* rates of return of the three open-end real estate funds, the NFI- ODCE Index, and the SBI Alternative Investments aggregate. The returns are reported quarterly and are displayed through 2Q2012

[5] Return data provided by the fund managers.

Exhibit E.1



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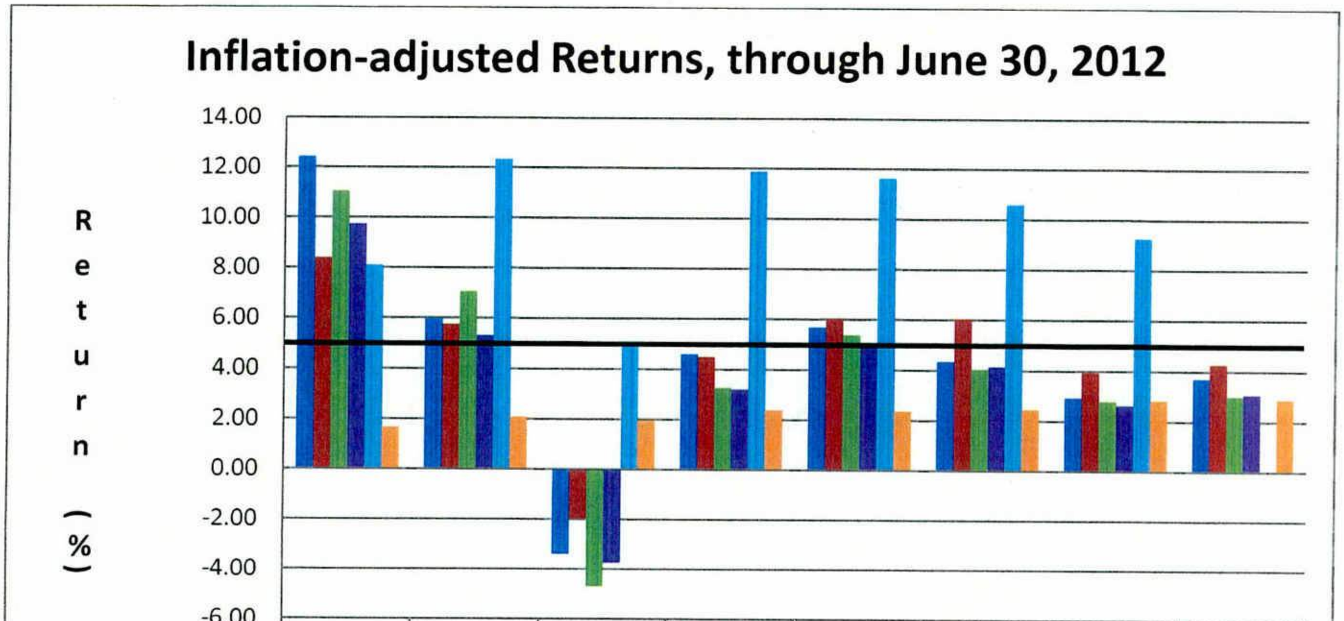
Inflation (CPI)	1.66	2.09	1.95	2.39	2.37	2.46	2.83	2.89

Exhibit E.1 shows that all three open-end real estate funds and the NFI- ODCE index have not consistently achieved the long-term rate of return hurdle of 8% (represented by the thick black line). Additionally, the Alternatives aggregate has dramatically outperformed the open-end real estate funds over time. **Exhibit E.2** shows the returns of the three open-end real estate funds, the NFI-ODCE index, and the SBI Alternatives aggregate over the same time periods in *real* terms.

Exhibit E.2



	1 year	3 years	5 years	10 years	15 years	20 years	25 years	30 years
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UBS-Trumbull	8.38	5.76	-1.97	4.49	6.02	6.04	3.93	4.26
PRISA	11.03	7.05	-4.72	3.26	5.38	4.02	2.78	3.00
NFI-ODCE	9.74	5.31	-3.75	3.19	4.91	4.14	2.61	3.06
MSBI Alternatives	8.09	12.31	4.89	11.85	11.61	10.58	9.25	
Inflation (CPI)	1.66	2.09	1.95	2.39	2.37	2.46	2.83	2.89

Here again we observe a lack of consistent achievement of rate of return expectations from the open-end real estate funds. Additionally, the Alternatives aggregate has outperformed the open-end real estate funds over time. Therefore, the open-end real estate funds have not achieved Goal #4, and the Alternatives aggregate is shown to be a superior alternative to the open-end real estate funds from a rate of return perspective. [6]

[6] The performance of the open-end real estate funds are compared to that of the other alternative investment subcomponents in Appendix 4.

☒ **GOAL #5: Serve as an inflation hedge**

The final expectation of the core real estate funds is that they would provide an inflation hedge. The correlation of the three open-end real estate funds with the CPI provides a gauge for judging how well the funds have served as a hedge against inflation. In this sense, a correlation coefficient of 0.5 or higher could be viewed as a strong correlation, and thus a strong inflation hedge. **Exhibit F** shows 25 year inflation correlations of the open-end real estate funds, the NFI – ODCE index, the Combined Funds, and the Alternatives, Domestic Equity, Fixed Income, and Short Term components.

Exhibit F

Correlation with Inflation	25 year Correlation Coefficient
Prime Property	0.08
UBS - Trumbull	0.14
PRISA	0.21
NFI - ODCE Index	0.19
SBI Alternatives	0.15
SBI Combined Funds	0.07
SBI Domestic Equity	0.08
SBI Fixed Income	-0.07
SBI Short Term	0.17
95% Statistical Significance Level	**+/-0.165**

Exhibit F shows that the correlations of the open-end real estate funds with inflation are indeed positive, but weak. Prime Property and UBS do not exhibit statistically significant relationships with the CPI. This finding indicates the open-end real estate funds have not served as adequate inflation hedges over the last 25 years. The correlation coefficient of the Alternatives portfolio with inflation has also been positive, but weak and close to that of the three open-end funds on average. Therefore, we can conclude that neither the open-end funds nor the Alternatives portfolio have served as adequate inflation hedges. However, the Alternatives portfolio has provided inflation hedging characteristics that are no worse, and in some cases better, than any other asset class in the Combined Funds portfolio.

Conclusion and Recommendation

Staff's evaluation of the open-end real estate funds' ability to achieve the goals and expectations that were assigned to them has yielded mostly disappointing results. The statistical analysis has shown that over time the SBI's core open-end real estate fund holdings have not consistently achieved the desired rate of return expectations on a nominal or real basis. The open-end real estate funds have provided some diversification benefits, but have proven to be inadequate inflation hedges. The open-end real estate funds did provide the Combined Funds with immediate access to the asset class when the initial investment was made, and they have also dampened the volatility of the Combined Funds.

In general, open-end core real estate funds seem better suited for investors starting an alternative investment program, given the instant access and liquidity these funds provide. The SBI's Alternative Investments Program, however, is no longer in a position in which liquidity is valued over total rate of return. These open-end real estate funds have, on the whole, provided far less risk-adjusted return than the Alternative Investments aggregate.

Therefore, staff recommends divesting from all three core open-end real estate funds. This divestment should be done at a measured pace by requesting withdrawals each quarter over the next three years, starting with PRISA and Prime Property, followed by UBS-Trumbull. This time frame will provide for an orderly wind-down of the open-end fund holdings and a dollar-cost average exit from the underlying assets.

Staff recommends that the funds generated from the liquidation of the open-end real estate fund holdings be reallocated to alternative investments broadly, subject to available investment opportunities. The dollars generated and pace of liquidation will be factored into staff's commitment pacing model with the goal of being fully allocated to Alternative investments.

Staff will continue to look for investment opportunities in the private equity, yield-oriented, resource and closed-end, non-core real estate areas in which staff believes there are sufficient opportunities to achieve the SBI's rate of return expectations. Regarding future real estate investments specifically, staff will target closed-end, non-core opportunistic and value-added funds that have the potential to generate long-term rates of return in excess of the SBI's rate of return expectations. As shown in Appendix 5, top performing closed-end real estate managers can, in fact, deliver excess returns relative to open-end core real estate funds. Therefore, staff will endeavor to source top performing opportunistic and value-added real estate managers.

APPENDIX 1

Construction of the Combined Funds Aggregate ex-Open-end Real Estate Funds

The open-end real estate funds are assets held within the Combined Funds portfolio. Since the open-end real estate funds' return series is embedded in the overall Combined Funds' returns, staff endeavored to remove the open-end real estate funds from the Combined Funds' return series. The result provided a cleaner measure by which to assess the true diversification capabilities of the open-end real estate funds, as well as their inflation hedge capabilities and impact on long-term rates of return on the Alternatives and Combined Funds aggregates. Staff found, as shown later in this Appendix, that examination of this custom data series corroborates the conclusions reached as previously stated in this paper. Before drawing these conclusions, staff offers the following explanation of how the custom Alternative Investments and custom Combined Funds aggregates were created.

The Alternative Investments aggregate consists of four main subcomponents: private equity, real estate, yield-oriented and resource. The custom Alternative Investments aggregate was created by removing the return streams and net asset values (NAV) of the open-end real estate funds from the real estate component of the Alternative Investments aggregate, leaving a custom real estate aggregate consisting entirely of closed-end funds. Given the complexity of the data series, staff was only able to assemble 14 years of history on this custom aggregate. The dollars that were essentially taken out of real estate through this process were then put back in the Alternative Investments dollar for dollar and pro rata across the four subcomponents according to their *actual* weights within the Alternatives aggregate. The reason the open-end fund NAVs were allocated in this manner was to continue the general trajectory (positive or negative) of each subcomponent's weighting within the Alternatives across time. So, for example, the total reported NAV of the open-end real estate funds as of June 30, 2004 was $343,725,263. As of June 30, 2004 the actual subcomponent weightings in the Alternatives aggregate and corresponding dollar amounts that were reallocated to each subcomponent were as follows:

As of June 30, 2004

	Actual Weight	Open-End Fund Dollars Reallocated
Real Estate	21.26%	$73,092,968
Resource	6.94%	$23,855,853
Yield-oriented	24.90%	$85,571,234
Private Equity	46.90%	$161,205,208

These computations were done for each quarter from 3Q1998 to 2Q2012.

Next, the alternative investments ex-open-end real estate funds aggregate was created by combining the return series of the custom real estate, resource, yield-oriented and private equity in accordance with each subcomponent's new weighting after the reallocation process just described. The alternatives ex-open-end funds aggregate was then combined with the return series of the Combined Funds' Domestic Equity, International Equity, Fixed Income and Short Term (cash) aggregates to create the Combined Funds ex-open-end funds custom aggregate. These weightings were rebalanced every quarter in the return series simulation using the current approximate weightings in the Combined Funds, which are:

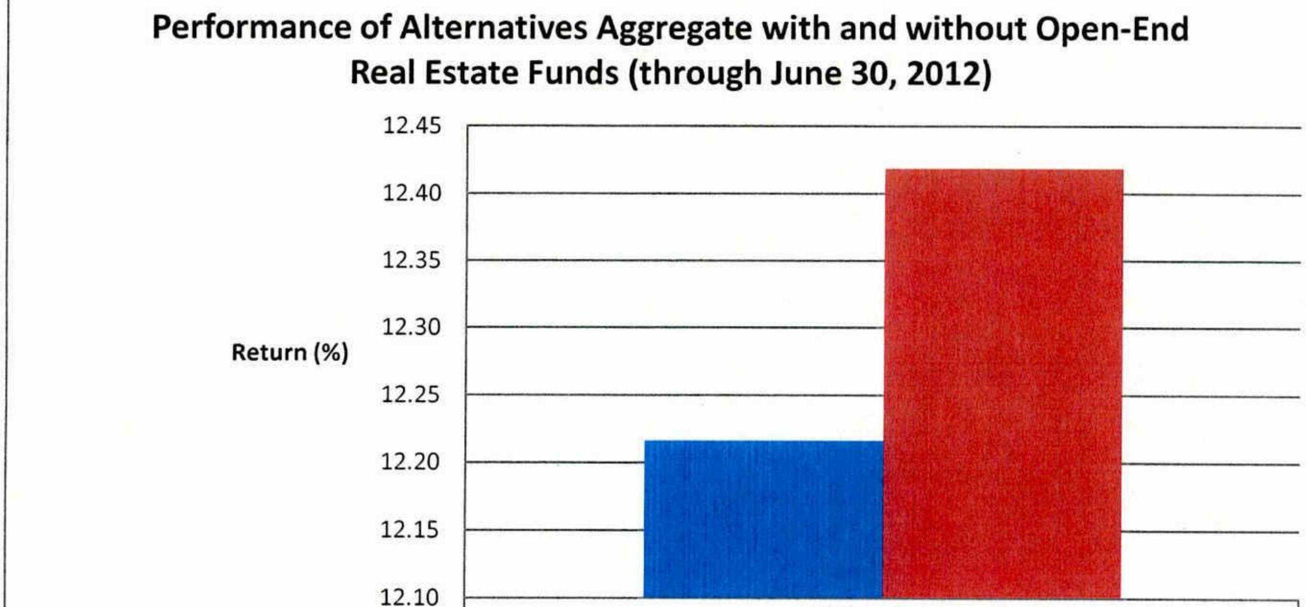
- Domestic Equities: 45%
- International Equities: 15%
- Alternatives ex-Open-End Funds: 15%
- Fixed Income: 23%

- Short Term: 2%

Using these weightings provides the best estimation of how the current portfolio would have performed without the open-end real estate funds (OERE Funds).

Exhibit G.1 compares the custom Alternative Investments aggregate return series with that of the actual Alternatives aggregate from 3Q1998 through 2Q2012.

Exhibit G.1

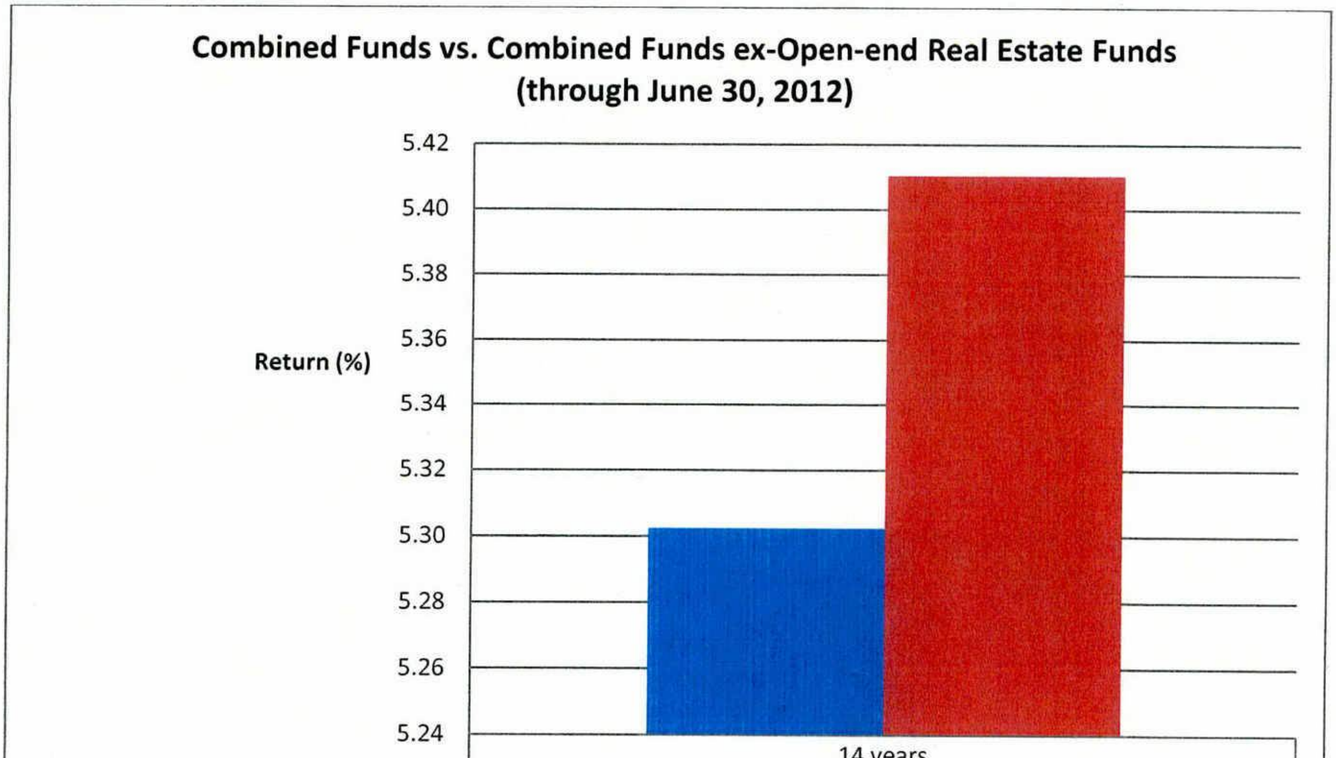


	14-Year Return
Alternative Investments Aggregate	12.22
Alternatives Ex-OERE Funds	12.42

The Alternative Investments aggregate ex-OERE funds outperformed the actual Alternative Investments aggregate over the 14 year period. This result is because the reallocation of open-end real estate fund dollars into better performing subcomponents boosted the overall custom Alternative Investments aggregate relative to the actual Alternative Investments aggregate.

Exhibit G.2 compares the custom Combined Funds aggregate return series with that of the actual Combined Funds from 3Q1998 through 2Q2012.

Exhibit G.2

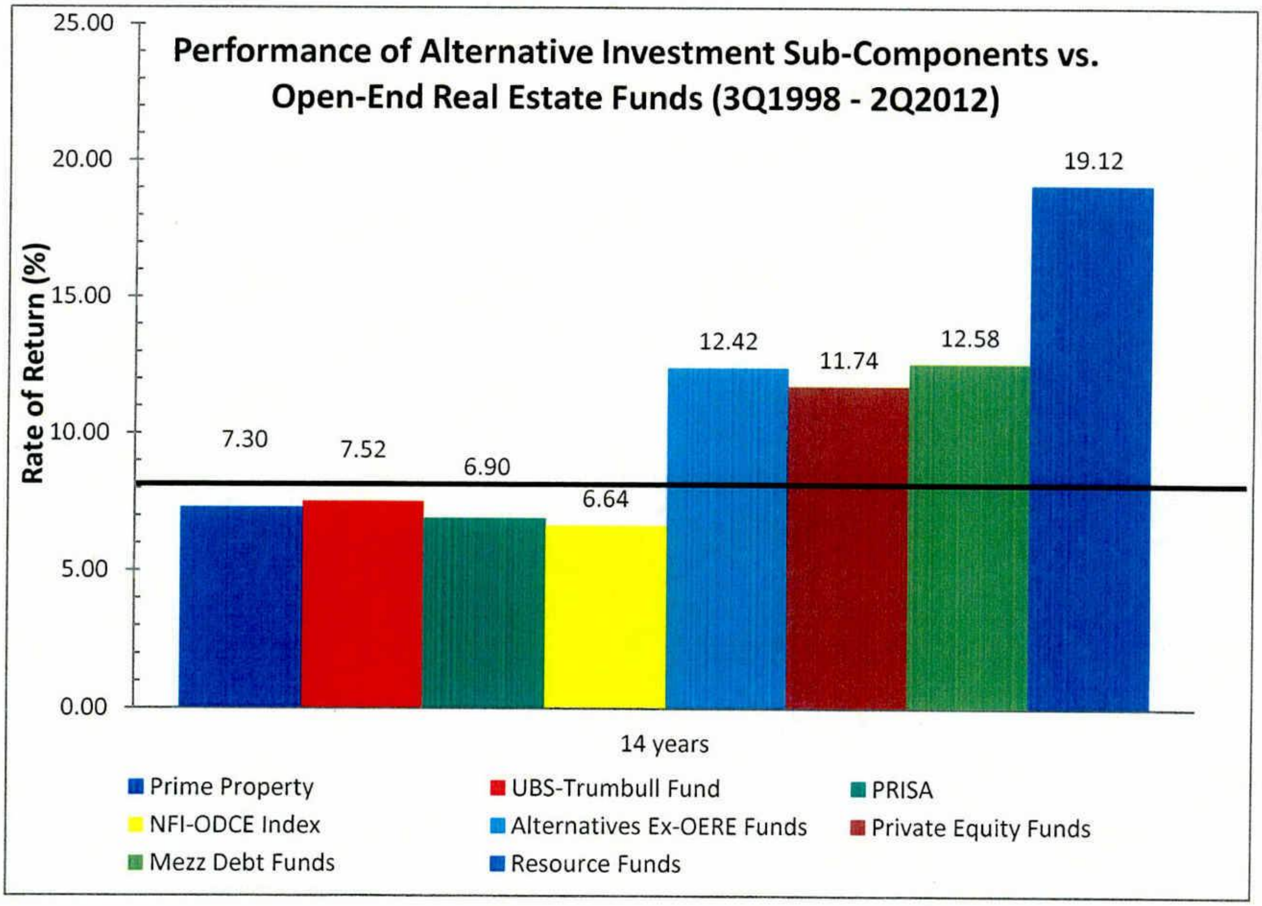


	14 years
Combined Funds - Actual	5.30
Combined Funds ex-Open-End Real Estate Funds	5.41

Exhibit G.2 shows that the Combined Funds would have been better off had they not invested in the open-end real estate funds and had reallocated those dollars into alternatives as previously described. The one caveat to this analysis is that it holds the weightings to domestic equities, international equities, alternatives ex-open-end real estate funds, fixed income and cash constant throughout the 14 year period. These weightings, therefore, are not actual historical weightings to the various asset classes, and so the returns generated by this simulation could be biased positively (negatively) in any given quarter if a certain asset class was over-weighted (under-weighted) relative to reality and that asset class outperformed (underperformed) others. But, as previously stated, these assigned weightings closely approximate the Combined Funds' weightings at present, and therefore provide a good approximation of how today's Combined Funds portfolio would have performed without the open-end real estate funds.

Exhibit H shows the 14 year rates of return of the Alternatives ex-OERE funds and the Alternative Investments' actual subcomponents compared to the open-end real estate funds' returns. The thick black line represents the 8% nominal rate of return expectation, as described in the discussion about Goal #4. As shown, the open-end real estate funds do not meet the rate of return expectation and are outperformed by the other Alternative Investments subcomponents.

Exhibit H



In order to further test the conclusions reached within the body of this paper, staff also analyzed this custom data within the context of Goals 2, 3, and 5, diversification of the Combined Funds, volatility dampening, and inflation hedging, respectively.

Goal #2: Diversify the Combined Funds

Exhibit I shows the results of the correlation analysis with the open-end real estate funds stripped from the Alternatives aggregate and the Combined Funds aggregate. The analysis shows the open-end real estate funds exhibit positive, though not significantly so, correlation with the Combined Funds ex-OERE Funds aggregate. This is consistent with the findings in the paper that the open-end real estate funds have provided a degree of diversification to the Combined Funds, though not to a degree more or less than the Alternatives ex-OERE Funds.

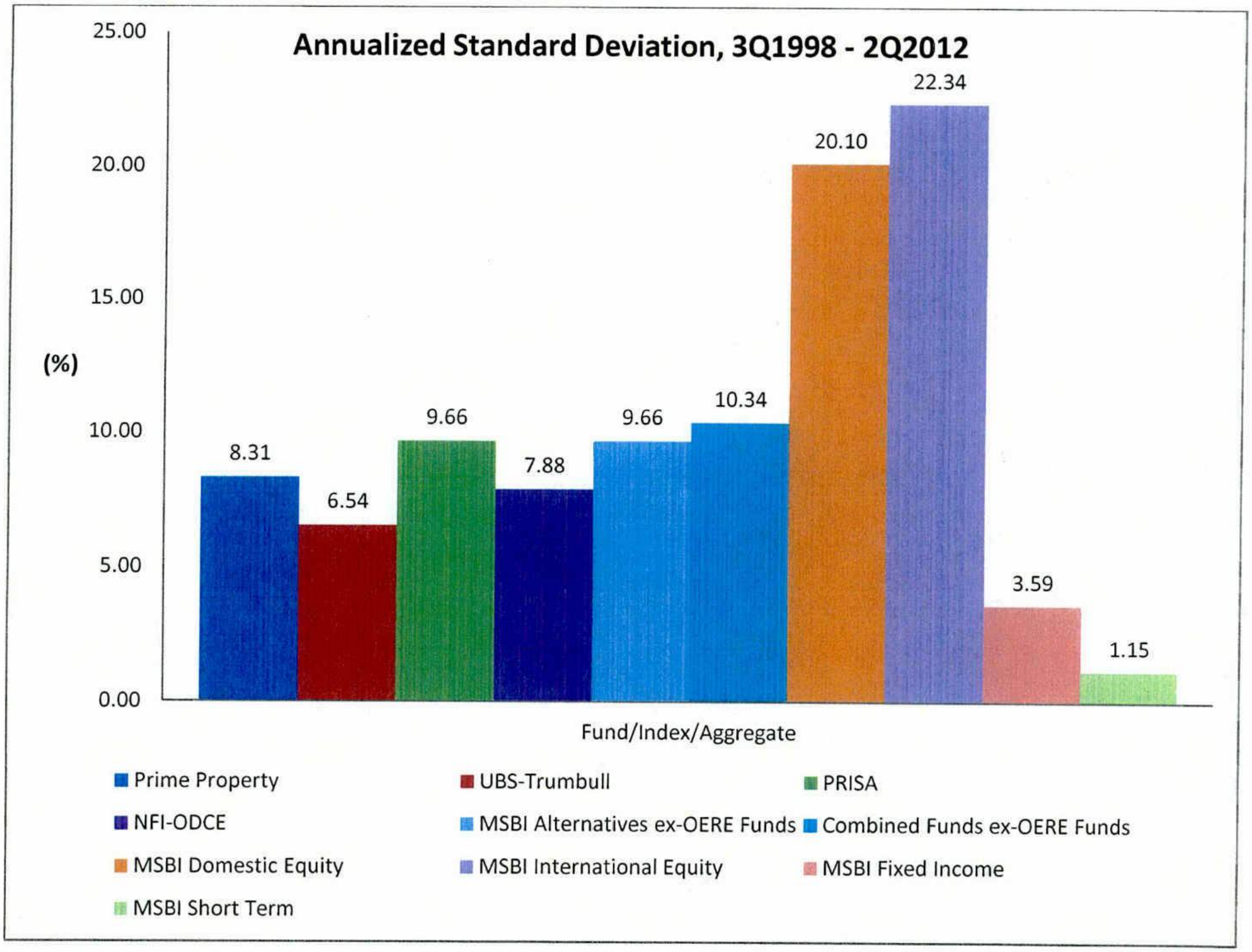
Exhibit I

14 year Correlation Coefficients	SBI Combined Funds ex-OERE Funds
Prime Property	0.18
UBS - Trumbull	0.30
PRISA	0.25
NFI - ODCE Index	0.28
Alternatives ex-OERE Funds	0.24
95% Statistical Significance Level	**+/-0.22**

Goal #3: Dampen the volatility of the Combined Funds

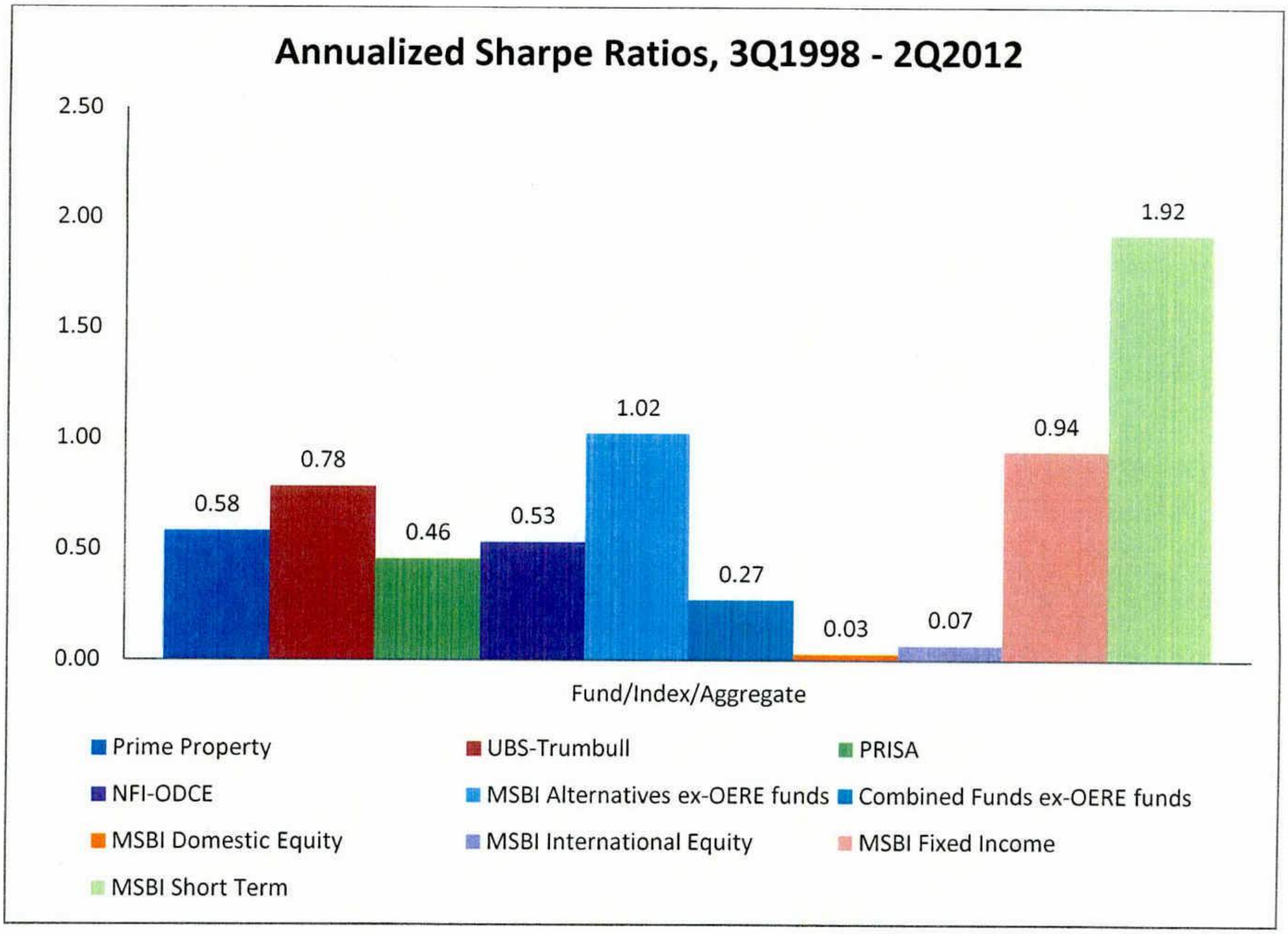
The results of the analysis of Goal #3 using the custom data set reveal a similar outcome as described in the body of this paper. The open-end real estate funds would have dampened the volatility of the Combined Funds ex-OERE funds because they exhibited lower annualized standard deviations over the 14 year period than the Combined Funds ex-OERE funds, as shown in **Exhibit J**

Exhibit J



The 14 year Sharpe ratios reveal a similar pattern as described in the body of this paper (Exhibit D). The Alternatives ex-OERE funds deliver superior risk-adjusted returns to that of the open-end real estate funds. However, as **Exhibit K** shows, the open-end real estate funds provided superior risk-adjusted returns to the Combined Funds ex-OERE funds as well as to that of domestic and international equities. This is mostly due to the relatively paltry excess returns of domestic and international equities (and thus the Combined Funds ex-OERE funds since the domestic and international equities together constitute 60% of the Combined Funds ex-OERE funds) over this 14 year time period.

Exhibit K



Goal #5: Serve as an Inflation Hedge

The effectiveness of the open-end real estate funds, the NFI – ODCE Index, the Alternatives ex-OERE funds, Combined Funds ex-OERE funds, domestic equity, international equity, fixed income, and short term (cash) as inflation hedges was evaluated over this same 14 year period. As can be seen in **Exhibit L**, the Alternatives ex-OERE Funds turn out to be the best inflation hedge in the Combined Funds portfolio.

Exhibit L

14 year Correlation Coefficients with:	Inflation (CPI)
Prime Property	0.11
UBS-Trumbull	0.24
PRISA	0.26
NFI-ODCE	0.25
Alternatives ex-OERE Funds	**0.28**
Combined Funds ex-OERE Funds	0.14
SBI Domestic Equity	0.12
SBI International Equity	0.12
SBI Fixed Income	-0.05
SBI Short Term	0.09
95% Statistical Significance Level	**+/-0.222**

In summary, this customized data supports staff's recommendation to liquidate the open-end real estate funds and reallocate into alternative investments for two main reasons:

1) The data clearly show that over intermediate (14 years) time periods, the open-end real estate funds have struggled to meet their rate of return expectations and have been dramatically outperformed by other alternative investments, and
2) The Combined Funds would not be losing diversification or inflation hedging effects by reallocating open-end real estate fund dollars into Alternative Investments broadly. In fact, the Alternatives ex-OERE Funds would have been a better inflation hedge than the open-end real estate funds.

APPENDIX 2

The NFI-ODCE, short for NCREIF Fund Index - Open End Diversified Core Equity, is the first of the NCREIF Fund Database products and is an index of investment returns reporting on both a historical and current basis the results of thirty open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees[7].

The NCREIF-ODCE index is currently composed of 18 open-end commingled funds pursuing a core investment strategy. As of December 31, 2011, these funds consisted of 1,840 investments representing a market value of $102.6 billion[8].

[7] Source: http://www.ncreif.org/fund-index-odce-returns.aspx
[8] Source: Callan Associates

APPENDIX 3

Exhibit D shows the Sharpe ratios of the open-end real estate funds, NFI – ODCE Index, the Combined Funds, and the Combined Funds asset classes. The Sharpe ratio formula is a measure of risk-adjusted performance and is calculated as follows:

$$= \frac{\bar{r}_p - r_f}{\sigma_p}$$

Where:

$\bar{r}_p$ = Expected porfolio return

r_f = Risk free rate

σ_p = Portfolio standard deviation

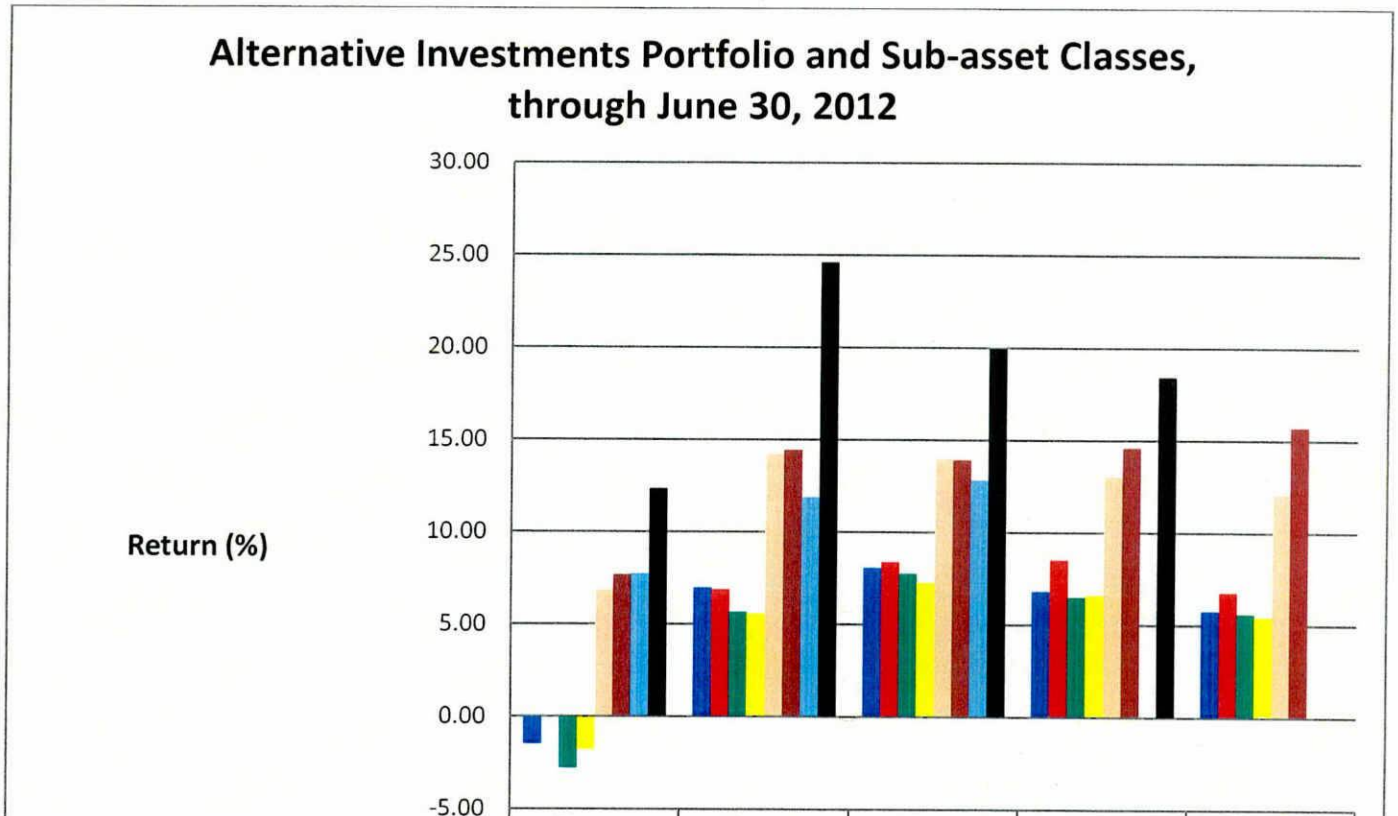
The risk-free rate used in this calculation for Exhibit D purposes was the 90-day T-Bill return from 3Q1987 through 2Q2012. The return series that were used in the Exhibit D calculations are shown below:

3Q1987 - 2Q2012	Return (%)	Annualized Standard Deviation (%)	Sharpe Ratio
Prime Property	5.75	6.86	0.26
UBS-Trumbull Fund	6.76	6.04	0.46
PRISA	5.60	7.96	0.21
NFI-ODCE	5.44	6.36	0.24
Combined Funds	8.42	11.16	0.39
SBI Alternatives	12.08	8.69	0.92
SBI Domestic Equity	8.18	17.93	0.23
SBI Fixed Income	7.54	4.18	0.84
SBI Short Term	4.94	1.43	1.53
Risk-free asset (90-day T-Bills)	3.91	1.20	--

APPENDIX 4

Exhibit E in the body of this paper shows the 25 year performance of the open-end real estate funds and their stated rate of return expectations of 8% nominal, 5% real. **Exhibit M** below shows that the open-end real estate funds have been outperformed by other assets held in the alternative investments portfolio over 5, 10, 15, 20 and 25 year time periods.

Exhibit M

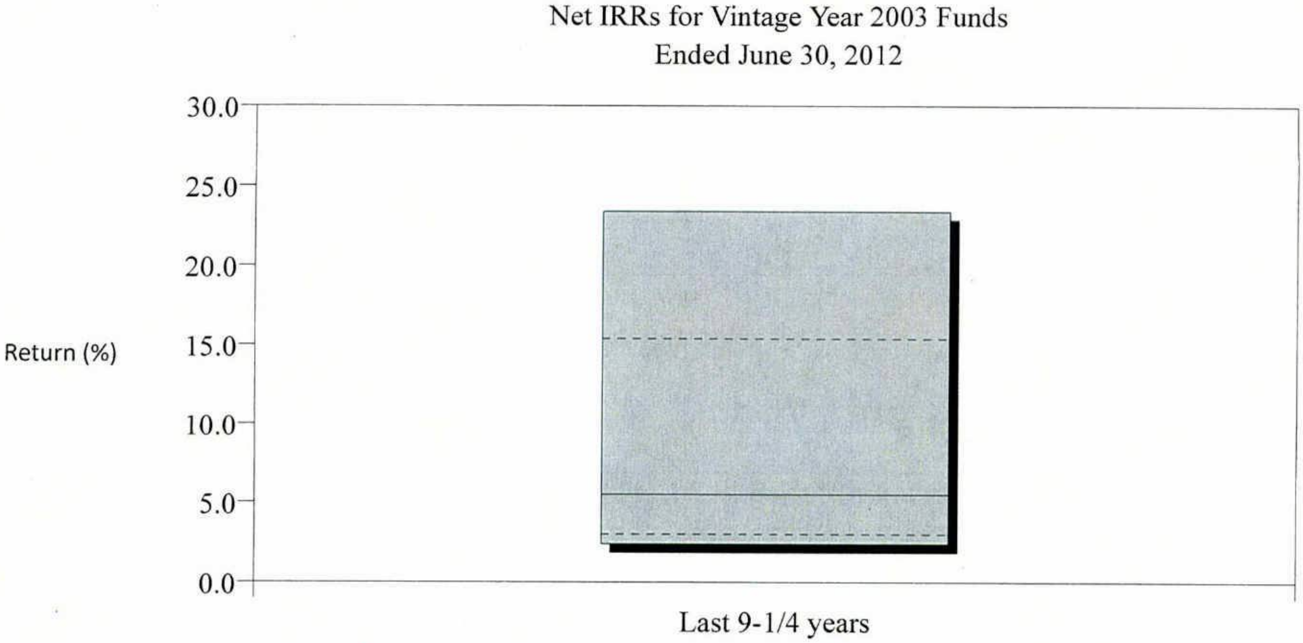


	5 years	10 years	15 years	20 years	25 years
Prime Property	-1.46	6.97	8.04	6.79	5.75
UBS-Trumbull Fund	-0.02	6.87	8.39	8.50	6.76
PRISA	-2.77	5.64	7.74	6.47	5.60
NFI-ODCE Index	-1.79	5.58	7.28	6.59	5.44
Total Alternative Investments Portfolio	6.84	14.24	13.98	13.04	12.08
Private Equity	7.67	14.43	13.90	14.58	15.69
Mezzanine Debt	7.72	11.85	12.80		
Resource Investments	12.34	24.61	19.98	18.42	

Exhibit M shows that the SBI's open-end real estate investments have underperformed the other subcomponents in the Alternative Investments portfolio over short, intermediate and long time periods. This finding further supports staff's recommendation to liquidate these investments and redeploy that capital into other opportunities within alternative investments.

APPENDIX 5

Callan Vintage Year 2003 Group for Non-Core Funds (Value Added and Opportunistic)



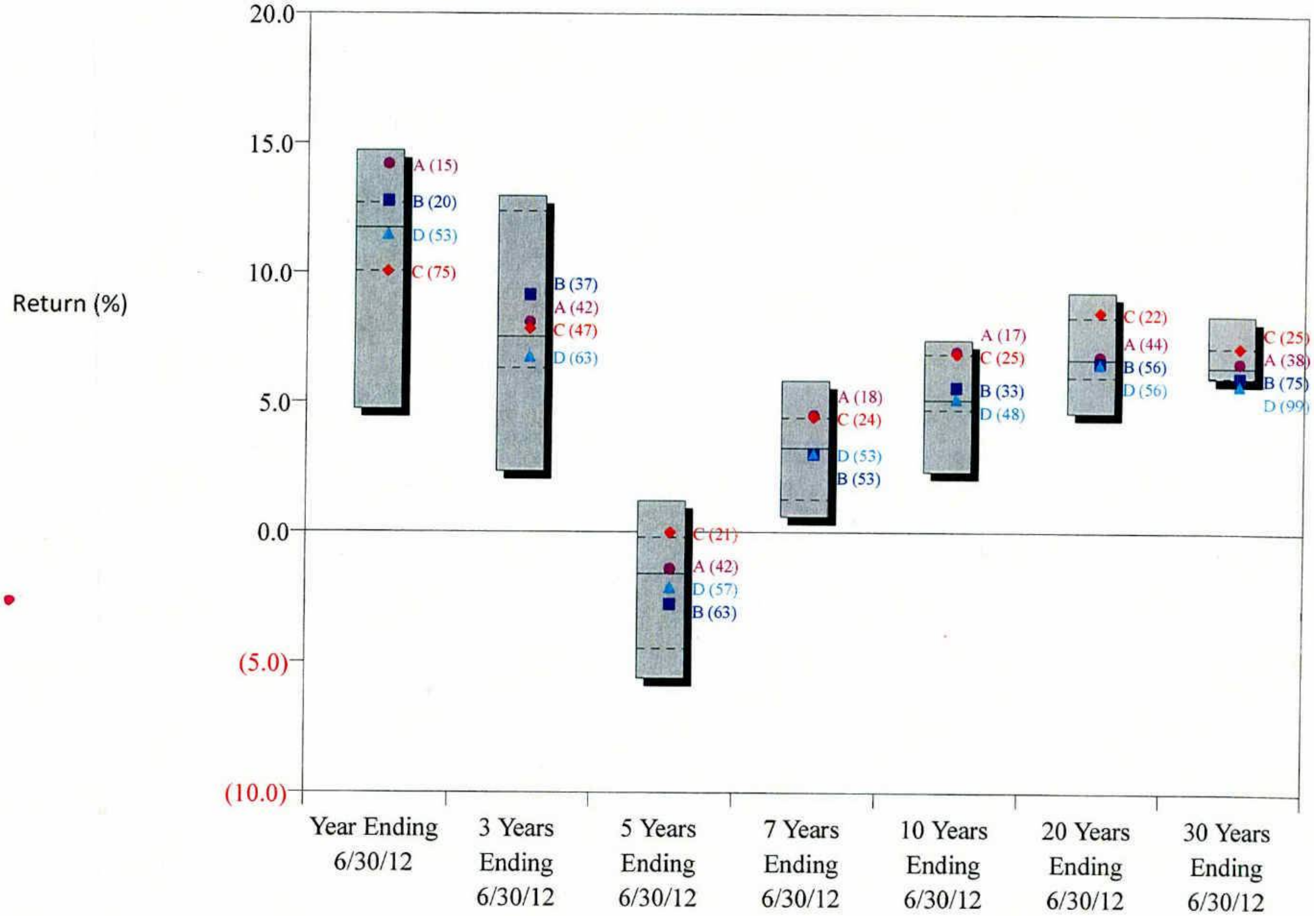
10th Percentile	23.40
25th Percentile	15.38
Median	5.49
75th Percentile	3.01
90th Percentile	2.39

Source: Callan Associates

The above data shows the added benefits of careful fund selection in the closed-end, non-core real estate space. The above sample of 2003 vintage year closed-end real estate funds gives an approximate 10 year rate of return stratification for the best and worst performing funds. Compared to the 10 year returns generated by the open-end core real estate fund universe (shown on the next page), a clear advantage emerges. The 25th percentile in the closed-end, non-core sample yields a 15.38% net IRR. For the open-end core fund sample, the net return is 6.87% for the 25th percentile fund over the last 10 years. This is a difference of 8.51% and is illustrative of the rate of return advantage inherent in closed-end fund investing vs. open-end fund investing.

Time Weighted Net Returns for Core Open-End Funds

Returns
for Periods Ended June 30, 2012
Group: CAI Open-End Real Estate Funds



	Year Ending 6/30/12	3 Years Ending 6/30/12	5 Years Ending 6/30/12	7 Years Ending 6/30/12	10 Years Ending 6/30/12	20 Years Ending 6/30/12	30 Years Ending 6/30/12
10th Percentile	14.71	12.96	1.19	5.83	7.42	9.28	8.38
25th Percentile	12.68	12.37	(0.21)	4.40	6.87	8.31	7.15
Median	11.72	7.53	(1.60)	3.24	5.11	6.68	6.39
75th Percentile	10.04	6.31	(4.47)	1.24	4.72	5.99	6.01
90th Percentile	4.73	2.31	(5.61)	0.58	2.30	4.61	5.97
MSRE:Prime Property ● A	14.19	8.10	(1.42)	4.51	6.97	6.79	6.57
Pru:PRISA ■ B	12.75	9.15	(2.76)	3.01	5.59	6.56	6.01
UBSRE:Trumbull Property ◆ C	10.04	7.84	(0.02)	4.45	6.87	8.51	7.15
NCREIF:NFI-ODCE Eq Wt Net ▲ D	11.46	6.78	(2.12)	3.03	5.17	6.53	5.72

Source: Callan Associates