oppaga report

October 2004 Report No. 04-70

Multi-Year Projections of Retirement System Funding Should Be Provided to the Legislature

at a glance

Benefit payments for Florida Retirement System (FRS) retirees are funded through a combination of employer contributions and returns from investments. The FRS pension plan has matured to the point at which annual benefit payments exceed employer contributions. As a result, the system will have to more heavily rely on investment returns to fund benefit payments in the future.

To assist the Legislature in its budget planning and to ensure that the FRS pension plan continues to achieve its goal of having sufficient funds available to cover the payment of benefits to current and future retirees while maximizing investment returns, projections of funding requirements for the next three to five years should be provided to the Legislature by the Florida Retirement System Actuarial Assumption Conference. The State Board of Administration also should better disclose its approach for controlling short-term volatility in investment returns in its FRS Investment Plan.

As of June 30, 2004, the SBA's $3.5 billion in alternative investments primarily consist of illiquid assets, and the reported return for these investments are not achieving SBA's investment objective. The SBA should consider whether the returns from these investments are sufficient to compensate for their risks and high management costs.

Scope

Florida law requires a performance audit be made of the State Board of Administration's (SBA) management of investment every two years.[1,2] This review examines the SBA's activities in Fiscal Years 2001-02 and 2002-03.

Background

The State Board of Administration is a constitutional board charged by law with investing certain assets of both the state and local governments. The SBA is composed of the Governor, the Chief Financial Officer, and the Attorney General. The SBA is responsible for managing 25 funds with a total net asset value of more than $120 billion at the end of Fiscal Year 2002-03. The SBA's operational and administrative expenses are entirely funded through fees for its investment management services, which in Fiscal Year 2002-03 totaled $25.8 million. The SBA also paid external investment managers $155 million for management services and brokerage commissions during this period.

[1] As specified in s. 215.44(6), *F.S.*

[2] In accordance with state law, OPPAGA informs the Legislature of actions taken in response to earlier reports on state programs. This report includes our assessment of the extent to which the findings and recommendations included in our 2002 report, *While State Board of Administration Investments Perform Relatively Well, the SBA Should Reassess Planned Expansion of Alternative Investments*, OPPAGA Report No. 02-37, June 2002, have been addressed by the State Board of Administration.

The Florida Retirement System (FRS) is the largest fund managed by the SBA. At the end of Fiscal Year 2002-03, the FRS pension plan had a net asset value of more than $90 billion, and served 595,164 active members and 208,399 annuitants.[3] The SBA provides investment management of available assets on behalf of the FRS, while the Division of Retirement, as the administrative agency for the FRS, is responsible for administering pension benefits and contributions, commissioning actuarial studies, and proposing rules and regulations for the FRS. The Legislature has the responsibility of setting contribution and benefit levels, and providing the statutory guidance for FRS.

The investment objective of the FRS is to provide investment returns sufficient for the plan to be maintained in a manner that ensures the timely payment of promised benefits to current and future participants and keeps the plan cost at a reasonable level. The SBA establishes investment guidelines such as target allocation of various asset classes for utilization in the management of the funds available assets.[4] These investment guidelines are outlined in the current FRS Investment Plan, which was last modified on August 12, 2003.

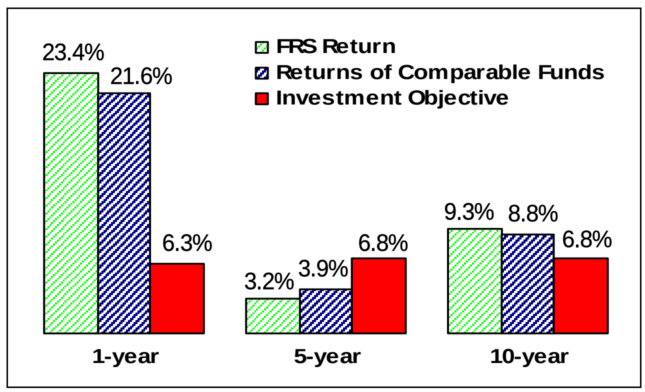
Findings

The SBA has generally performed well in achieving its investment objective over the long term

The SBA's primary goal for investing FRS pension plan assets is to ensure there are sufficient funds available to cover the payment of benefits to current and future retirees when due. To achieve this goal, the SBA has established a long-term investment objective of achieving a rate of annual return of 4% over the rate of inflation.[5]

The SBA has generally performed well in achieving this investment objective for FRS pension plan assets. As shown in Exhibit 1, the SBA's return rate for investing FRS pension plan assets exceeded its rate of return objective over the 10-year period and the most recent year ending December 31, 2003. However, it did not meet its investment objective over the most recent 5-year period. Exhibit 1 also shows that the investments of FRS pension plan assets exceeded the median return of comparable funds over the 10-year period and the most recent year ending December 31, 2003, but trailed over the 5-year period.[6]

Exhibit 1
The SBA's 10-Year Returns Exceeded Its Investment Objective and Outperformed Comparable Funds [1]



[1] The Investment Objective is equal to the contemporaneous rate of inflation plus 4%. Annualized returns are for years ending December 31.

Source: *Ennis Knupp 4th Quarter 2003 Investment Review of the Florida Retirement System* and OPPAGA analysis.

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[3] Florida Retirement System members may join one of two retirement benefit options—the pension plan or the investment plan. The FRS pension plan is a defined benefit plan, meaning that employer contributions to employees' retirement benefits are invested by the employer. The employer guarantees a certain level of benefit payment and bears the risk that investment returns will not support that level of benefits. Participants' retirement benefits are based upon a formula taking into account factors such as their salary levels, years of service, compensation, and FRS membership class

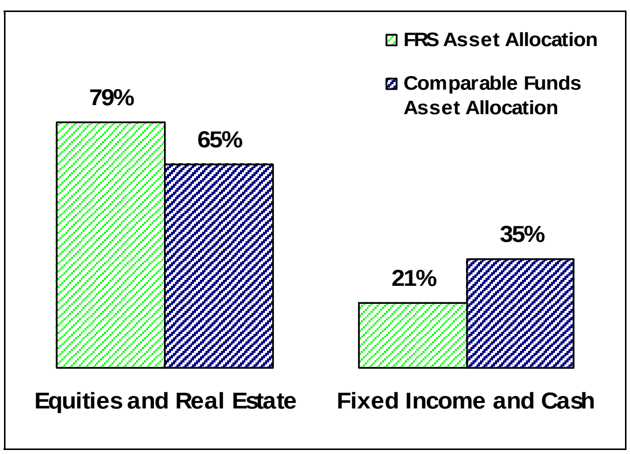
[4] Asset classes represent groups of individual securities that have common economic and legal characteristics.

[5] Prior to April 2000, the SBA's objective in investing Florida Retirement System assets was to achieve the actuarial assumed return rate on a long-term basis. The assumed rate of return used by the Department of Management Services consulting actuary in valuing the system's pension liabilities is 8%. The SBA determined it needed to meet this return rate over the long term in order to generate sufficient funds to pay future pension liabilities when due. In April 2000, the SBA changed the long-term investment objective from achieving the actuarial rate of return to an absolute real target rate of return of 4.3% over the rate of inflation. In August 2003, the SBA reduced its target rate of return to 4% (compounded and net of investment expenses) over the rate of inflation.

[6] The investment returns of comparable funds are based on the median return the Trust Universe Comparison Service of Large Funds. These funds consist of 33 fund sponsors with an average fund size of $36.4 billion.

The SBA's performance relative to its investment objective for FRS assets and with comparable funds is primarily attributable to its asset allocation strategy. As shown in Exhibit 2, the current SBA investment guidelines allocate a greater percentage of assets to equities and real estate and a lower percentage to fixed income assets such as bonds and money markets than the average allocation of comparable pension funds. Consequently, during periods when equity markets are performing well, the FRS investment performance exceeds it objectives and the investment performance of comparable funds with lower allocations of equities. While an increased allocation of assets to equities and real estate increases the expected long-term rate of return of the fund, it also serves to increase the short-term risk of significant investment losses. For example, the SBA reported that there was a 10% probability that under the current allocation of assets, the fund would lose more than 11% of its value in the next year.

Exhibit 2
FRS Asset Allocation Is Expected to Produce a Higher Return, But Has More Risk Than Comparable Funds

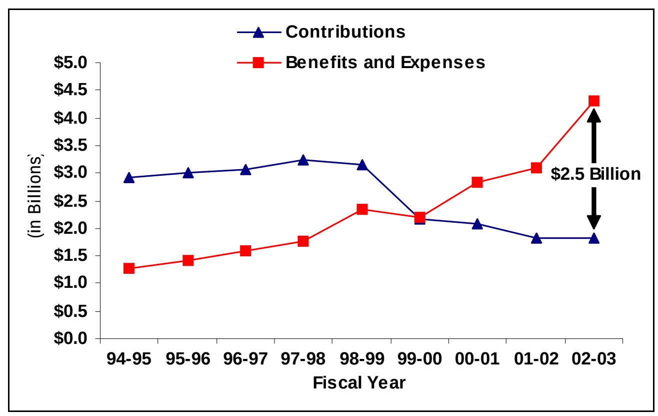


Source: *Ennis Knupp 4th Quarter 2003 Investment Review of the Florida Retirement System* and OPPAGA analysis. Information is as of December 31, 2003.

Analysis of FRS funding requirements should be developed

Under the FRS pension plan, retiree benefit payments and management expenses are funded through a combination of employer contributions and returns from investments. Prior to 1998, employer contributions exceeded benefit payment amounts and management expenses. However, as shown in Exhibit 3, the FRS pension plan has matured as the number of retirees has increased, and employer contributions no longer exceed annual retiree benefits. In Fiscal Year 2002-03, the total benefit payments exceeded employer contributions by approximately $2.5 billion. In the future, employer contributions are expected to continue to be less than annual retiree benefits as the number of retirees and their beneficiaries increases relative to the number of active members in the system. Thus, the pension plan will have to more heavily rely on investment returns to fund benefit payments in the future.

Exhibit 3
Annual FRS Pension Plan Payments and Expenses Now Exceed Employer Contributions



Source: FRS Annual Reports and Actuarial Evaluation Reports.

To aid the Legislature in its budget planning and to help ensure that the FRS pension plan continues to achieve its objective of having sufficient funds to pay promised benefits to current and future participants while maximizing investment returns, an analysis of the plan's future funding requirements for the next three to five years should be provided to the Legislature. This analysis of future funding requirements should include projections of benefit payment requirements and an evaluation of funding allocations to meet the benefit obligations. The evaluation of funding allocations should consider projections of participant demographic characteristics and economic conditions that affect the plan's long-term financial condition under various short and long-term investment climates.

Multi-year projections of FRS funding requirements would help the Legislature to identify anticipated employer contributions that will be required to meet benefit obligations. Integrating the projection of benefit payment requirements with the analysis of source of funding will also serve to enhance budgetary planning for the state and participating local governments by providing greater certainty regarding the FRS pension plan's funding requirements. The SBA may also find this information useful in developing its investment strategies.

Projections of the investment returns and employer contributions needed to meet annual benefit requirements for the next three to five years should be provided to the Legislature by the Florida Retirement System Actuarial Assumption Conference along with its recommendation for the current year's employer contribution rate. The information also could be provided to participating local governments and the State Board of Administration. [7]

The SBA should evaluate alternative approaches for controlling short-term volatility in investment returns

With increasing reliance on investment returns to fund benefit obligations, the SBA's ability to achieve its objective is more likely to be affected by short-term investment volatility. Historically, the SBA's investment approach has focused on maximizing long-term returns in order to minimize long-term funding needs and risks. This approach has been successful in moving the FRS pension plan from the actuarial deficit situation that existed in the 1980s to its fully funded status today. However, as the system has matured and reached the point at which investment returns are being used to pay pension obligations, SBA must now also be concerned with shorter-term investment volatility to minimize the potential that it could be forced to liquidate assets during a market downturn at a substantial loss in order to meet current benefit obligations.

Some recent investment studies have advocated that pension systems adopt an "immunization" approach in which a portion of a system's portfolios would be invested in fixed income assets such as high quality bonds that would generate sufficient cash flow to cover projected benefit payment requirements. While this approach would reduce short-term risks, it would tend to reduce expected long-term investment returns because it could require a system to carry a higher allocation of fixed income assets which have lower expected returns than other asset types such as equities and real estate.

Regardless of the approach SBA uses to control short-term volatility, it should more fully describe its approach in the FRS Investment Plan. [8] The FRS Investment Plan, which is approved by the SBA's trustees, identifies the SBA's investment goals and objectives for the FRS pension plan, which include controlling the short-term volatility of annual returns. The current plan does not describe the strategies the SBA is using to control such volatility. Increased disclosure within the plan document would better inform the Legislature and other state policymakers about the SBA's strategies for balancing short- and long-term investment risks.

Status of Prior Findings

Our 2002 report concluded that the SBA had generally performed well in investing FRS assets, but made several recommendations to

[7] As specified in s. 216.134(1), *F.S.,* the Florida Retirement System Actuarial Assumption Conference is responsible for the development of official information with respect to the economic and non-economic assumptions and funding methods of the Florida Retirement System used to perform the system actuarial study undertaken pursuant to s. 121.031(3),*F.S.* The principals of this conference are the Executive Office of the Governor, the coordinator of the Office of Economic and Demographic Research, and professional staff of the Senate and House of Representatives who have forecasting expertise, or their designees. The Executive Office of the Governor has the responsibility of presiding over the sessions of the conference. The State Board of Administration and the Division of Retirement are participants in the conference. As specified in s. 216.134(1), *F.S.,* the official information developed by the conference shall include forecasts for a period of at least 10 years, unless the principals of the conference unanimously agree otherwise.

[8] In 2004, the Legislature changed the name of the FRS Investment Plan to the FRS Defined Benefit Investment Policy Statement by amending s. 215.475, *F.S.*

help the SBA meet its investment objectives and reduce its operating costs. Specifically, we recommended that the SBA reassess its plans to expand the use of alternative investments in the future and to modify its practice of only reporting the performance of alternative investments against a benchmark since inception. We also recommended that the SBA determine if active portfolio management of domestic equities continued to add value in terms of returns relative to risk.

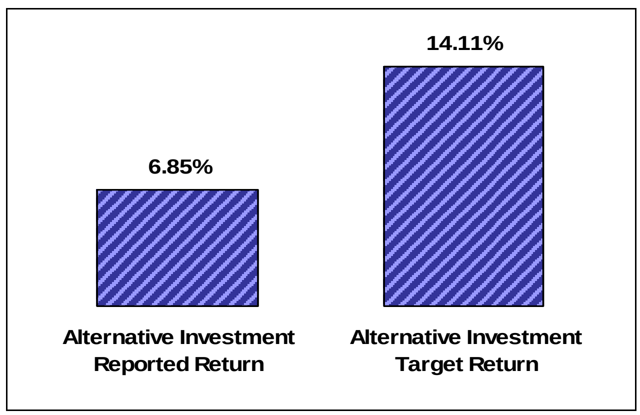
Alternative investments continue to not achieve objectives

The SBA's alternative investments primarily consist of private equity investments in domestic and international companies through limited partnerships that are externally managed by general partners. [9] As of June 30, 2004, the SBA's alternative investments had a total estimated market value of $3.5 billion. Private equities are illiquid investments because they generally require a 7- to 10-year commitment of funds to realize the expected investment return. In addition, the reported returns are based primarily on valuations from general partners that are difficult to verify because the majority of the investments are not publicly traded. As there is no outside source to confirm the value of these investments, the SBA will not know their actual value until capital gains are realized when investments are closed out. Since over 90% of the alternative investment class portfolio is in funds with investments that are less than 10 years old, only one of the SBA's alternative investment funds has been closed out since the inception of the asset class.

Our 2002 report raised concerns about the SBA's alternative investment class as it was not achieving its investment return objectives, had high management fees compared to other types of investments, and SBA lacked plans, policies, and procedures in place to guide the use of alternative investments. We recommended that the SBA reassess its plans to expand the use of alternative investments.

Since our 2002 report, the SBA has increased its target allocation of alternative investments from 4% to 5% of the total FRS pension plan portfolio. In August 2003, the SBA reduced its return rate objective for these investments to achieve a long-term return equal to the return for the broad domestic equity market index plus 450 basis points, which represents a 150-basis point reduction from its previous goal of 600 basis points. [10] Despite this reduction in expected returns, this asset class has continued to significantly underperform its investment objective. As shown in Exhibit 4, the reported 10-year annualized return for alternative investments has been less than half of its investment return objective. [11]

Exhibit 4
The Reported 10-Year Annualized Returns for the Alternative Investment Class Has Not Achieved Its Investment Objective[1]



[1] The alternative investment target return is the domestic equity 10-year target rate of return (9.61%) plus 450 basis points

Source: *State Board of Administration 2002-03 Investment Report* and OPPAGA analysis.

[9] Private equity is non-debt capital raised by companies not listed on securities exchanges for starting a business, restructuring an existing business or financing a buyout or acquisition. These private equity investments are typically in the form of leveraged buyouts (LBO).

[10] A basis point represents 0.01% interest rate. The original benchmark for private equities portfolios was established on May 23, 1997, as the domestic equity asset class target plus 750 basis points, evaluated over a 10-year period. Subsequently this was changed to the domestic equity class target plus 600 basis points in 2001 and finally to the current domestic equity class plus 450 basis points in August 2003.

[11] Annualized rate of return are for the 10-year period from July 1, 1993, through June 30, 2003, as reported in the *State Board of Administration 2002-03 Investment Report*. SBA officials stated that there is another method for calculating the 10-year annualized return and target return for alternative investments. This alternative method produced a 10-year annualized return of 10.06% and target return of 14.55%.

In addition, the fees associated with the management of alternative investments continue to be high as compared to other types of investments. For example, in Fiscal Year 2002-03, the SBA paid alternative investment managers $38.9 million to manage approximately $3 billion in assets. In comparison, it paid its active style domestic equity managers $36.7 million to manage approximately $15 billion in assets.[12] We continue to believe that the SBA should reassess its use of alternative investments.

Active management of domestic equities performance is improving

The SBA uses a combination of passive and active investment strategies to manage its domestic equity asset class. Passive style managers typically buy and hold selected securities with the goal of achieving rather than exceeding the performance of a group or sector of stocks. In contrast, active style managers select stocks based on various strategies with the goal of exceeding the performance of a market index. Actively managed assets have higher anticipated returns than similar assets managed passively, which serves to increase the overall expected return of the asset class. However, actively managed investments returns also are considered more variable and therefore serve to increase the overall risk of the fund. Passive style managers engage in minimal trading activity, incur lower transaction costs and charge lower management fees than active style investment managers.

[12] Active style managers select stocks based on various strategies with the goal of exceeding the performance of a market index.

Our previous reviews of the SBA have recommended that it increase the passive share of FRS domestic equity asset class.[13] In response to our recommendations, the SBA has increased the passive share of this asset class from approximately 60% to nearly 70% over the past five years. The SBA has also increased its monitoring of the active management of the domestic equities asset class by implementing a risk budgeting process. The risk budgeting process is designed to minimize the likelihood that actively managed portfolios fail to provide an adequate long-term return. In addition, the SBA has continued its enhanced oversight of external managers, including the termination of external managers who fail to meet their respective performance benchmarks.

The performance of the SBA's actively managed share of its domestic equity asset class has improved and exceeded passive managed investment performance for most reporting periods. As shown in Exhibit 5, the annualized rate of return for the actively managed portion of the domestic equity asset class is now higher than returns for most reporting periods. However, it should be noted that passively managed investment returns of domestic equities exceeded the actively managed portion of the asset class for the most recent year.

[13] Our three previous reports were *Oversight Report on the State Board of Administration's 1996-97 Investment Report*, OPPAGA Report No. 98-10, August 1998. *Investment of Florida Retirement System Assets Meets Goals, But Earnings Could Be Increased*, OPPAGA Report No. 99-52, May 2000, and *While State Board of Administration Investments Perform Relatively Well, the SBA Should Reassess Planned Expansion of Alternative Investments*, OPPAGA Report No. 02-37, June 2002.

Exhibit 5
Active Managed Returns for Domestic Equities Exceeds Passively Managed Returns for Most Reporting Periods

	Net Annualized Rates of Return of Domestic Equities for Periods Ending June 30									
	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
	2002-03	2001-03	2000-03	1999-03	1998-03	1997-03	1996-03	1995-03	1994-03	1993-03
Total All Active	0.30%	-8.24%	-9.76%	-4.74%	-0.79%	3.93%	7.01%	9.24%	10.71%	9.79%
Total All Passive	0.75%	-8.87%	-10.75%	-6.20%	-1.31%	3.27%	6.94%	9.17%	10.74%	9.80%
Overall Return	0.54%	-8.72%	-10.60%	-5.76%	-1.22%	3.42%	6.87%	9.13%	10.64%	9.68%

Source: State Board of Administration.

Recommendations

The Florida Retirement System has matured to the point where annual benefit payments exceed employer contributions. As a result, the system will have to more heavily rely on income from investment returns to fund benefit payments in the future. To assist the Legislature and help ensure that the FRS continues to achieve its goal of having sufficient funds available to cover the payment of benefits to current and future retirees when due while maximizing investment returns, we recommend that projections of the investment returns and employer contributions needed to meet annual benefit requirements for the next three to five years be provided to the Legislature by the Florida Retirement System Actuarial Assumption Conference along with its recommendation for the current year's employer contribution rate. The information also should be provided to participating local governments and the State Board of Administration. We also recommend that the State Board of Administration describe its approach for controlling short-term volatility in investment returns in its FRS Investment Plan.

We continue to have concerns about SBA's alternative investments. The SBA's alternative investments primarily consist of illiquid investments with reported returns that are difficult to verify but are well below the SBA's investment objective. We continue to recommend that the SBA reassess its decision to expand the use of these investments. The SBA should consider whether the returns from these investments are sufficient to compensate for their risks and high management costs.

Agency Response

In accordance with the provisions of s. 11.51(5), *Florida Statutes,* a draft of our report was submitted to the executive director of the State Board of Administration for review and response. The executive director's written response is included in Appendix A.

OPPAGA supports the Florida Legislature by providing evaluative research and objective analyses to promote government accountability and the efficient and effective use of public resources. This project was conducted in accordance with applicable evaluation standards. Copies of this report in print or alternate accessible format may be obtained by telephone (850/488-0021 or 800/531-2477), by FAX (850/487-3804), in person, or by mail (OPPAGA Report Production, Claude Pepper Building, Room 312, 111 W. Madison St., Tallahassee, FL 32399-1475).

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Gary R. VanLandingham, OPPAGA Interim Director

Appendix A

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October 6, 2004

Gary VanLandingham
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Dear Mr. VanLandingham:

Please find attached the State Board of Administration's response to OPPAGA's preliminary and tentative report entitled "Multi-Year Projections of FRS Funding Requirements Should Be Provided to the Legislature."

Let us know if you have any questions or would like additional information.

Sincerely,

/s/
Coleman Stipanovich
Executive Director

CC: Debbie Gilreath, Staff Director, OPPAGA
Flerida Rivera-Alsing, Chief of Internal Audit, SBA

SBA Response to OPPAGA's Preliminary and Tentative Report Entitled "Multi-Year Projections of FRS Funding Requirements Should be Provided to the Legislature"
September 2004, Report No. 04-xx

Introduction

The State Board of Administration has been asked to respond in writing to OPPAGA's draft report titled above. The report contains recommendations that fall into the following three categories; this response addresses each category separately:

A. Recommendations directed at parties other than the SBA
B. Investment policy recommendations to the SBA
C. Specific asset class recommendations to the SBA

A. Recommendations Directed at Parties Other than the SBA

OPPAGA recommends that:

> "To aid the Legislature in its budget planning and to help ensure that the FRS pension plan continues to achieve its objective of having sufficient funds to pay promised benefits to current and future participants while maximizing investment returns, 1 an analysis of the plan's future funding requirements for the next three to five years should be provided to the Legislature." (Page 4, 1st paragraph)

OPPAGA goes on to say:

> "Projections of the investment returns and employer contributions needed to meet annual benefit requirements for the next three to five years should be provided to the Legislature by the Florida Retirement System Actuarial Assumption Conference along with its recommendation for the current year's employer contribution rate. The information could also be provided to participating local governments and the State Board of Administration." (Page 4, 3rd paragraph)

SBA agrees that such information may be useful to the Legislature. SBA finds such information to be essential in developing appropriate investment policies for the FRS portfolio. OPPAGA is apparently unaware that the SBA conducts an annual asset-liability study in which year-by-year projections are made of FRS benefit payments, contribution rates, plan liabilities, plan assets and funded ratios over a fifteen year horizon under 500 different economic and market scenarios. We would be pleased to share this information with the Legislature, the Florida Retirement System Actuarial Assumption Conference and local governments.

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[1] This is a misstatement of the FRS investment objective. For non-technical audiences SBA has sometimes referred to its objective as maximizing investment returns, *subject to risk considerations*. The qualification is important, in that pure return maximization would entail excessive and unnecessary levels of short-term risk. The specific investment objective established for the FRS portfolio is contained in section 5 of the FRS Defined Benefit Investment Policy Statement (formerly the FRS Total Fund Investment Plan), to wit:

> "The investment objective of the Board is to provide investment returns sufficient for the plan to be maintained in a manner that ensures the timely payment of promised benefits to current and future participants and keeps the plan cost at a reasonable level. To achieve this, a long-term real return of 4.0% per annum (compounded and net of investment expenses) should be attained. As a secondary consideration, the volatility of annual returns should be reasonably controlled to avoid excessive volatility in short-term plan cost levels."

OPPAGA Comment

OPPAGA is aware that the SBA utilizes this type of information in developing its investment strategies and that the FRS Actuarial Valuation, produced by Milliman USA, also requires that many of these same projections be developed. The Florida Retirement System Actuarial Assumption Conference could use information from both of these studies to develop its projections of investment returns and employer contributions needed to meet annual benefit requirements for the next three to five years and thus aid the legislature and local governments in their budget planning.

B. Investment Policy Recommendations to the SBA

In the "Recommendations" section at the end of its report, OPPAGA suggests that "...the State Board of Administration describe its approach for controlling short-tem [sic] volatility in investment returns in its FRS Investment Plan."[2]

While SBA's approach is laid out in a number of public documents, we have no objection to including a description of it in our Investment Policy Statement for the defined benefit plan.

OPPAGA's summary recommendation is derived from a section in the body of the report beginning on page 4 entitled "The SBA should evaluate alternative approaches for controlling short-term volatility in investment returns." Each time the SBA conducts an asset-liability study we effectively reexamine this issue. We plan to continue conducting such studies on an annual basis.

We would be remiss, however, if we failed to note that in the body of this section, OPP AGA expresses views on investment policy to which we take exception. OPPAGA believes that because annual FRS benefit payments now exceed employer contributions, SBA must now place greater emphasis on controlling shorter-term investment volatility.[3] The SBA manages the FRS portfolio such that expected short-term volatility is the minimum level that can be obtained from a reasonably diversified portfolio, yet still meet our principal investment objective (quoted in our footnote 1). The goal of that objective is to maintain the fully funded status of the FRS and avoid causing an increase in the FRS normal cost rate (that is, long-term required employer contributions as a percent of payroll). The key to attaining this objective is to ensure that long-term asset growth reasonably matches long-term growth in liabilities. Because the FRS is still a relatively young plan, liability growth is significant. To match that growth, we must have a substantial portion of the FRS portfolio invested in equities. This places a bound on how low we can drive short-term volatility or risk. The only way to reduce short-term volatility further would be to invest more conservatively. This would reduce expected long-term returns, and ultimately boost plan cost.

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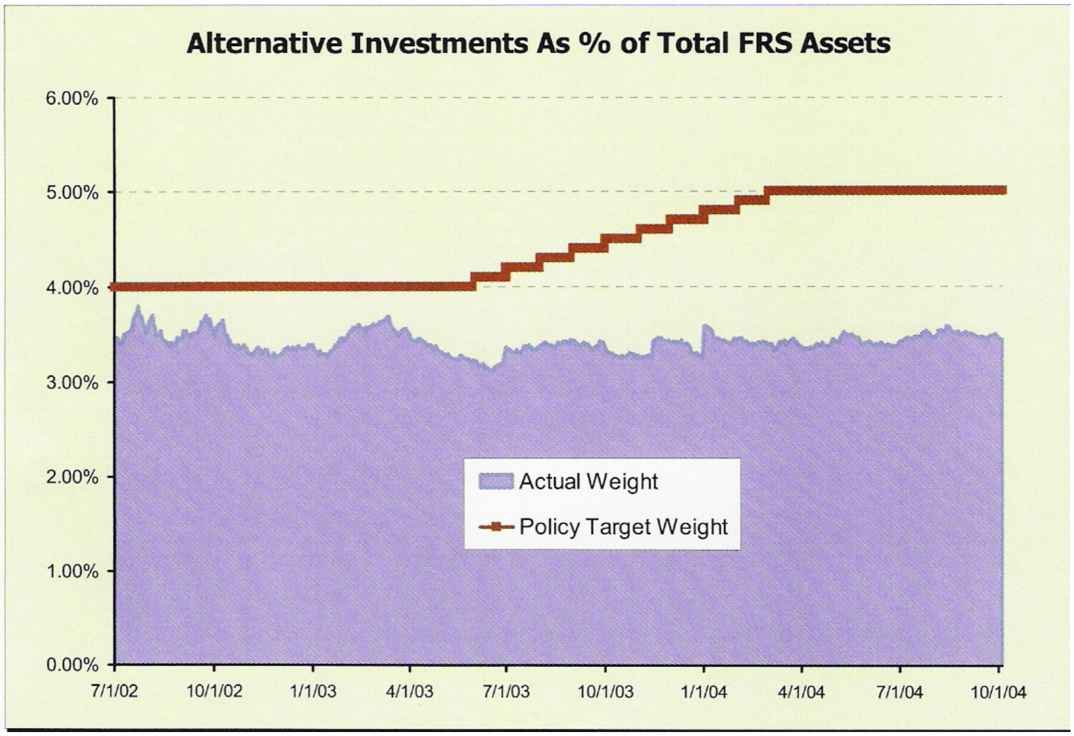
[2] The FRS Investment Plan is a "doing business as" name for the optional FRS defined contribution plan formally referred to in law as the Public Employees Optional Retirement Program. In a number of places in its report OPPAGA uses "FRS Investment Plan" when referring to the document that sets forth investment policy for the FRS defined benefit plan. The correct current title of the document is the FRS Defined Benefit Investment Policy Statement, renamed by legislative action in 2004 from the FRS Total Fund Investment Plan.

[3] The rationale offered is that we might be forced to liquidate assets at a loss in a time of market stress. Nonetheless, the risk of occasional liquidation losses is necessary in order to achieve long-term returns commensurate with the growth of FRS liabilities.

C. Specific Asset Class Recommendations to the SBA

With respect to the Alternative Investments Asset Class, OPPAGA recommends that the SBA "reassess its decision to expand the use of these investments."

Beginning in 2003 the SBA phased in an increase in the *authorized* target weight for Alternative Investments from 4% to 5% of the total fund. However, our actual exposure has not materially increased above 3.5%, as illustrated in the following chart. Thus, to date there has been no increase from which to recede.



OPPAGA also says "The SBA should consider whether the returns from these investments are sufficient to compensate for their risks and high management costs."

OPPAGA is correct that compared to publicly traded equities, leveraged buyouts (which are the core of this asset class) entail atypical risk and high investment management costs. From our 1999 review of the FRS Total Fund Investment Plan, we concluded that the Alternative Investments asset class (AI) is not likely to provide full compensation for its idiosyncratic risks unless investment results are consistent with those of the top quartile buyout partnerships.

Since then we have worked to better diversify the asset class, improve its operational framework and strengthen its consulting resources.[4] We will continue to closely monitor its performance.

At the same time, it must be noted that OPPAGA misstates the degree to which Alternative Investment returns have fallen short of the asset class target return. In its Exhibit 4 on page 6, OPPAGA correctly shows the 6.85% internal rate of return earned by this asset class for the 10 years ending June 30, 2003, as reported in our 2002-03 annual investment report. However, OPP AGA created its own comparison benchmark by adding the current 450 basis point return premium for this asset class to the *time-weighted* target return for the domestic equities asset class. This is an apples-to-oranges comparison, since internal rates of return are dollar weighted, not time-weighted. Using the current 450 basis point premium, the correct dollar-weighted internal rate of return benchmark for this period is 7.27%, not 14.11%.[5]

OPPAGA Comment

The Alternative Investment target return of 14.11% identified in Exhibit 4 to our report is based on application of the description of the authorized target indices in the FRS Investment Plan. Table 3 of the plan states that the target index for the Alternative Investment Asset Class is the Domestic Equity Asset Class target index return plus a fixed premium return of 450 basis points per annum. Table 6 of the SBA's 2002-03 Investment Report shows the 10-year annualized target return for the Domestic Equity Asset Class as 9.61%. Application of the target description in the FRS Investment Plan with return information in the SBA's Investment Report, (9.61% plus 4.5%) produced the 14.11% identified in our report.

While below its benchmark, this asset class still delivered a return that was in excess of public market returns for the same period.[6] More importantly, the historic performance of this asset class is not necessarily a reliable indicator of its likely long-term performance. The average age of AI's paid in capital (as of June 30, 2003) was 5.1 years, whereas the typical buyout partnership lifecycle is 7 to 10 years. It is only upon liquidation of partnership assets that performance can be accurately assessed.

In any event, we agree with the thrust of OPPAGA's remarks that these types of investments require particular vigilance and that to date the case for greater AI exposure in the long term remains unproven.

Finally, we are gratified that OPPAGA noted our excellent short and long-term performance. Our 10-year returns shown in OPPAGA ' s Exhibit I place us in the top quartile of all large public and corporate plans, per the Trust Universe Comparison Service (TUCS).

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[4] For example, since OPPAGA's last audit, SBA has formalized the policies and work plans under which this asset class operates.
[5] The returns shown in OPPAGA's footnote II are time-weighted.
[6] Publicly traded asset classes are only measured on a time-weighted basis. For the 10 years ending June 30, 2003, the time-weighted annualized return for the domestic equity asset class was 9.68%. The comparable time-weighted figure for Alternative Investments was 10.06%.