SENATE STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based only on the provisions contained in the legislation as of the latest date listed below.)

Date: March 31, 1998 Revised:

Subject: Investments of State Moneys

	Analyst	Staff Director	Reference	Action
1.	Johnson	Deffenbaugh	BI	Fav/2 amendment
2.	Lombardi	Wilson	GO	Favorable/CS
3.			WM	
4.				
5.				

I. Summary:

This bill will revise investment guidelines for the State Treasurer with respect to state moneys, broadening the availability of investment vehicles now restricted under current law.

Authorizes the board of the Florida Birth-Related Neurological Injury Compensation Association (NICA) to invest plan funds only in the investment and securities described in s. 215.47, F.S.

This act takes effect July 1, 1998.

This bill amends sections 18.10 and 766.315, Florida Statutes.

II. Present Situation:

The Cabinet Office of the Treasurer is established in s. 4, Art. IV, Fla. Const. The Treasurer is directed to keep all state funds and securities and to disburse state monies only upon the order of the Comptroller. Section 20.13, F.S., designates the Treasurer as the Insurance Commissioner, Treasurer, and State Fire Marshal and names the Treasurer as the head of the Department of Insurance. The law also directs the Treasurer to administer the Government Employees Deferred Compensation Plan through the Division of the Treasury.

Chapter 18, F.S., delineates many duties of the Treasurer. Among the duties assigned by law is the investment of state monies in excess of those needed to pay the immediate debts of the state. These excess funds include monies from the General Revenue Fund, trust accounts, and various other accounts of state agencies and other public and quasi-public entities. The law authorizes the Treasurer to charge a fee for managing excess state monies.

Pursuant to s. 18.10(2), F.S., the Treasurer is directed to invest these excess funds in qualified public depositories that will pay rates established by the Treasurer at levels not less than the prevailing rate for United States Treasury securities with corresponding maturity. In the event additional money is available and qualified public depositories are unwilling to accept such money

and pay the rates established by the Treasurer, then the Treasurer is authorized to invest the money in specific investment products.

The law also directs the Treasurer to establish qualifications for designate banks and savings and loan associations as qualified public depositories. Chapter 280, F.S., outlines the procedures a financial institution must follow to be designated as a qualified public depository.

To qualify as a qualified public depository, a financial institution must provide specific information to the Department of Insurance describing the assets of the institution. A qualified public depository is also required to collateralize a specified portion of public monies on deposit so that the designated portion of that deposit is immediately available should the need arise. The percentage of public funds that a financial institution must collateralize varies depending upon the assets of the institution, among other requirements.

III. Effect of Proposed Changes:

Section 1. Amends s. 18.10, F.S., relating to deposits and investments of state money to authorize the Treasurer to invest in qualified public depositories and, if money is still available, to invest in certain investments. The guidelines for investing in corporate obligations are revised to remove the intermediate term duration. Investments in state and local government obligations rated in any of the four, as opposed to three, highest classifications by at least two nationally recognized rating services is authorized. However, if such obligations are rated by only one nationally recognized rating service, the obligations must be rated in one of the two highest classifications.

Investments in foreign bonds, denominated in United States currency and registered with the U.S. Securities and Exchange Commission, are permissible, if the long-term obligations of such issuers are rated by at least two nationally recognized rating services in any of the four highest classifications. However, if such obligations are rated by only one nationally recognized service, the obligation must be rated in one of the two highest classifications.

Investments in convertible debt obligations of any corporation domiciled in the United States are authorized, if the debt issue is rated by at least two nationally recognized rating services in any of the four highest classifications. However, if the such obligations are rated by only one nationally recognized service, the obligations must be rated in one of the two highest classifications.

It should be noted that the highest four classifications of investment are **AAA**, **AA**, **A** and **BBB,** and are all considered *investment grade* securities. Nationally recognized rating services include: Standard and Poors, Moodys, and Fitches. Although the language in the bill appears to be permissive and does not address permissible or acceptable portfolio allocations, these standard ratings provide benchmark and constraints in helping to ensure the safety of state investments.

Section 2. Section 766.315, F.S., is amended to authorize the board of the Florida Birth-Related Neurological Injury Compensation Association (NICA) to invest plan funds only in the investments and securities described in s. 215.47, F.S., and subject to the limitations on investments contained in that section, which currently applies to investments made by the State Board of Administration. Currently, the NICA board must invest plan funds in "interest-bearing investments."

Section 3. The bill is effective July 1, 1998.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Economic Impact and Fiscal Note:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

In the event external privately managed funds are used to facilitate the investment philosophies of the State Treasury, these managed funds will benefit from fees charged to manage the state's investments.

C. Government Sector Impact:

In 1997, the Department of Insurance requested investment policy changes that would expand the State Treasury's investment portfolio. The Treasury also estimated the policy changes could result in an additional non-taxable recurring revenue for the state of approximately $1,750,000.

Interest rates have continued to drop dramatically to new lows while institutional investors have continued to pour money into equities both home and abroad. The following exhibit shows the state's foregone income opportunity with regard to this investment policy decision and the following economic assumptions for the prior year.

GENERAL ASSUMPTIONS
Total Portfolio Size rounded off at $5 billion
Corporate Allocation at 15% ($750 million)
Returns based on Merrill Lynch Global Index System

Foregone Income Opportunity to Date Effective from Jan. 1, 1997 In $ Millions	
Corporate Security Ratings Expanded to BBB (25% allocation) Excess spread =1.15% (9.42%-8.27%) on $187.5 million	$2.16
Corporate Security Maturity >10 years (5% allocation) Excess spread =1.79% (10.06%-8.27%) on $37.5 million	$ .67
Municipals	negligible
Yankee Securities (5% allocation) Excess spread =<1.70%> (6.57%-8.27%) on $37.5 million	<$ .64>
Convertible Securities Excess spread =11.36% (20.11%-8.75%) on $100 million	$11.36
Total	$13.55

VI. Technical Deficiencies:

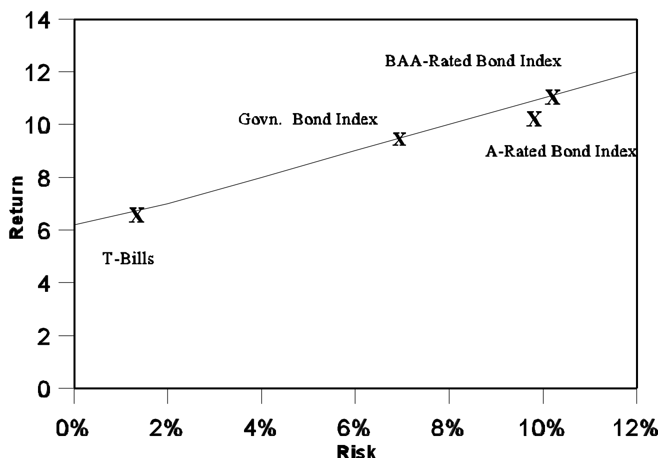
On page 2, line 29, the words "on ly." should be reworded to "only."

VII. Related Issues:

In January 1996, Ennis, Knupp and Associates, full-time advisors to the State Board of Administration and the Florida Retirement System, published a "Review of the Florida State Treasury's Investment Program." The study was performed at the request of the Treasurer who sought to manage more efficiently short-term and intermediate term treasury funds and potentially to increase earnings yield within the portfolio. The results of the study are as follows:

Investment-Grade BBB rated bonds

The state treasury is currently restricted by statute to the three highest grade classifications of corporate bonds: **AAA**, **AA**, and **A**; s.18.10, F.S.. The exclusion of **BBB**-rated issues, within the universe of *investment-grade* corporate bonds, places one-fouth of all investment grade issues off limits. **BBB** issues currently comprise approximately 24 percent of the total corporate bond market value. This also restricts the manager's ability to add value to the treasury portfolio.



A plotting of historical data compiled by the study, when risk is measured as rate-of-return volatility on the horizontal axis, and annualized return is plotted on the vertical axis, BBB-rated issues have clearly yielded slightly higher returns than A-rated issues with only marginally greater risk.

Non-Investment Grade bonds (BB)

Many institutions avoid ***high-yield*** bonds because of the material possibility of default. Actual losses due to default have averaged 2-5 percent per year. Even after accounting for such defaults, diversified high yield bond

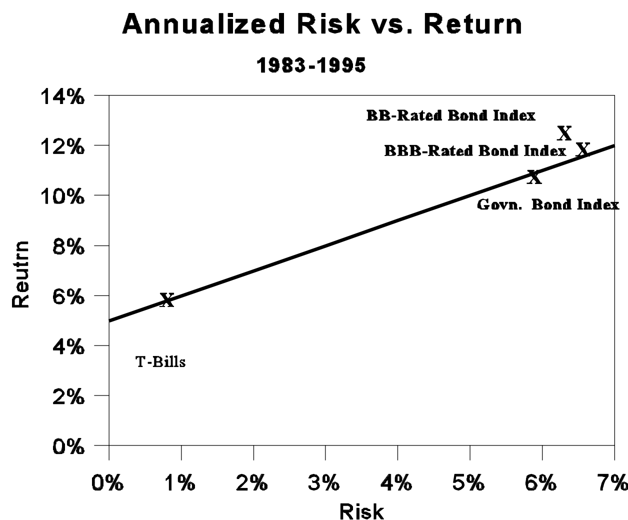
portfolios have historically yielded a meaningful premium over investment-grade corporate bond portfolios while experiencing only marginally greater return volatility. Table 1 below illustrates the comparison covering the last 19 years.

Return and Risk of Corporate Bonds-1977-1995

Table 1

	Annualized Return	**Risk**
Investment-Grade Corporate Bonds	9.9%	***10.3%***
High-Yield Bonds	11.8%	***10.7%***

The consulting study by Ennis, Knupp and Associates argues that because large investors avoid high-yield bonds, this segment may be less efficient, and can lead to potential opportunities for skilled managers who want to add value to their portfolios. The report also expressed the opinion that the market has systematically attached more risk to high-yield bonds than warranted by actual performance characteristics. In fact, the graph on the left reveals that these lower rated bonds have actually outperformed investment grade **BBB** issues, and with lower risk. Concerning volatility, high yield bonds are no riskier than the restricted mortgage securities allowed under existing treasury guidelines.



In conclusion, Ennis, Knupp and Associates recommended that as part of a diversified total return strategy, the Treasury be allowed to invest up to 10 percent of its portfolio assets in below investment-grade bonds with external managers.

Phoenix, Duff and Phelps also conducted a study to assess the overall performance of the Florida Treasury's External Investment Manager Program and also concluded that the use of BBB issues could enhance the performance of the portfolio.

In its conclusion, the study gave primary consideration to the issue of increased return relative to increased risk. Sharpe ratios, which measure the incremental unit of return achieved per incremental unit of risk taken, were used in examining this issue. The higher the Sharpe ratio the more favorable the return/risk characteristics. Table 2 below illustrates returns and Sharpe ratios for each category over various intervals of time.

Intermediate-Term Indices

TABLE 2	**Index G/C**	**AAA**	**AA**	**A**	**BBB**
CumulativeAnnualized	9.23	9.26	9.45	9.72	10.52
5 YR. Annualized	9.91	9.87	10.05	10.39	11.24
3 YR. Annualized	9.77	9.78	9.98	10.32	11.24

Intermediate-Term Indices					
Sharpe Ratio (Cumulative)	.39	.34	.37	.42	.54
Sharpe Ratio 5 YR.	.56	.57	.56	.62	.75
Sharpe Ratio 3 YR.	**.64**	**.67**	**.65**	**.74**	**.88**

BBB investment-grade issues produce the highest Sharpe ratio for each period analyzed in addition to yielding the highest return. The study also revealed using a correlation matrix, Table 3 below, that **BBB** issues have the lowest relative correlation overall to the Intermediate Government/Corporate Index. This improves the diversification characteristics of a portfolio.

Correlation Matrix

TABLE 3

Intermediate-Term Indices	G/C	AAA	AA	A	BBB
G/C	1.0000				
AAA	.9608	1.0000			
AA	.9631	.9914	1.0000		
A	.9555	.9848	.9919	1.0000	
BBB	.9002	.9354	.9438	.9636	1.0000

The study concludes that:

* **BBB** securities increase return in an intermediate-term fixed income portfolio more than it increases risk; and
* If management techniques used are actively managed, opportunity for improved yield performance over and above pure index investment can result.

The Investment Advisory Council of the State Board of Administration issued its quarterly report on March 21, 1997. In that report, the State Board also considered and adopted some of the recommendations of Ennis, Knupp and Associates and will incorporate them into its investment philosophy. As to the issue of investment and non-investment grade bond securities the board voiced the following opinions:

* Investing in high-yield bonds is consistent with the SBA's investment philosphy. These securities are publicly traded in an established and robust market and their economic fundamentals are consistent with generating high returns.
* It is recommended that bonds rated CCC or less be excluded from the portfolio.
* Investments in **BB-** and **B**-rated bonds can diversify risk within the fixed income asset class and the total FRS fund.
* Typical allocation of high-yield bonds among large public pension funds are in the 4 percent-5 percent range.
* Inclusion of a 5 percent allocation to a **BB-** and **B**-rated market weighted bond index combined with a 95 percent allocation to the Florida Extended Duration Index will:

    1. Not materially increase volatility;
    2. Increase investment earning in the FRS fund adding 1 to 2 basis points to the annual return ($6 to $12 million);

3. Redefine the fixed income target index in total.

These changes will occur within the authorized statutory provisions of s. 215.44, F.S.

Standard and Poors, a national rating service, issued a report in February, 1997, addressing corporate default rates over the past 15 years. Table 4, is an incremental one year transition matrix in which **BBB** security ratings at the end of the one year period are measured as a percentage of their rating at the beginning of the period.

The study analyzed the ratings histories of 5,904 holders of long-term ratings from January 1, 1981 to December 31, 1996. The obligors include both U.S. and non-U.S. industrials, utilities, banks and other financial institutions, and real estate companies. Most of these obligations are sold in the U.S., however, many access other financial markets. Excluded from the study are: subsidiary companies whose debt is fully guaranteed by the parent; insurers receiving only claims-paying ability rating; companies with only short-term ratings; and companies issuing preferred stock with no other long-term ratings.

Those years marked in bold only (1991-1993), are representative of a downturn in the economic business cycle. Default patterns over time share broad similarities as adverse business conditions tend to coincide with default rate spikes in all pools of corporate debt securities. Those years marked in bold and italicized (1994-1996), represent the more robust business cycle.

ONE-YEAR TRANSITION MATRICES
BBB Distribution Ratings at year end (%)

TABLE 4

yr.	AAA	AA	A	BBB	Downgrades BB or less
1981	0.00	0.00	3.99	89.13	6.88
1982	0.34	0.34	3.02	79.53	16.79
1983	0.00	0.66	6.27	80.53	12.54
1984	0.00	0.33	10.30	77.41	11.95
1985	0.00	0.70	8.39	76.57	14.34
1986	0.00	0.00	6.27	74.92	18.80
1987	0.00	0.59	5.00	78.24	16.18
1988	0.00	0.57	9.12	74.36	15.96
1989	0.00	0.00	7.54	77.09	15.37
1990	0.00	0.00	3.84	84.66	11.51
1991	**0.00**	**1.03**	**4.38**	**83.51**	**11.09**
1992	**0.00**	**0.00**	**5.11**	**85.40**	**9.48**
1993	**0.00**	**0.00**	**3.48**	**82.83**	**13.69**
1994	***0.00***	***0.19***	***3.53***	***88.50***	***7.80***
1995	***0.00***	***0.48***	***5.76***	***85.44***	***8.32***
1996	***0.15***	***0.00***	***5.31***	***88.20***	***6.34***

VIII. Amendments:

None.

This Senate staff analysis does not reflect the intent or official position of the bill's sponsor or the Florida Senate.