2018 REGULAR SESSION
ACTUARIAL NOTE HB 23

House Bill 23 HLS 18RS-387 **Original** **Author: Representative Ivey** **Date: March 16, 2018** **LLA Note HB 23.01** **Organizations Affected:** **All State and Statewide Retirement Systems** **OR NO IMPACT APV**	**This Note has been prepared by the Actuarial Services Department of the Legislative Auditor with assistance from either the Fiscal Notes staff of the Legislative Auditor or staff of the Legislative Fiscal Office. The attachment of this Note provides compliance with the requirements of R.S. 24:521 as amended by Act 353 of the 2016 Regular Session.** Paul T. Richmond **Paul T. Richmond, ASA, MAAA, EA** **Manager Actuarial Services**

Bill Header: RETIREMENT/STATE-STWIDE: Provides for a limitation on investment portfolio allocation to alternative investments.

Cost Summary:

The estimated actuarial and fiscal impact of HB 23 on the retirement systems and their plan sponsors is summarized below. Actuarial costs pertain to estimated changes in the ***actuarial present value of future benefit payments***. Fiscal costs or savings pertain to changes to all cash flows over the next five year period including retirement system cash flows, OPEB cash flows, or cash flows related to other government entities.

An increase in actuarial costs is denoted throughout the actuarial note by "Increase" or a positive number. Actuarial savings are denoted by "Decrease" or a negative number. An increase in expenditures or revenues (fiscal impact) is denoted by "Increase" or a positive number. A decrease in expenditures or revenues is denoted by "Decrease" or a negative number.

Estimated Actuarial Impact:

The top part of the following chart shows the estimated change in the ***actuarial present value of future benefit payments and expenses***, if any, attributable to the proposed legislation. The bottom part shows the effect on cash flows.

Actuarial Costs Pertaining to:		**Actuarial Cost**
The Retirement Systems		See below
Other Post Employment Benefits (OPEB)		0
Other Government Entities		0
Total		See below
Five Year Fiscal Cost Pertaining to:	**Expenses**	**Revenues**
The Retirement Systems	See below	See below
Other Post Employment Benefits	0	0
Other Government Entities	0	0
Total	See below	See below

Bill Information

Current Law

Current law requires each fiduciary and board of trustees in all state and statewide retirement systems to follow the prudent-man rule, that is to act with care, skill, prudence, and diligence under the circumstances prevailing that a prudent institutional investor acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. This standard applies not only to selecting investments, investment managers, and consultants, but also to the overall investment strategy, which includes the asset allocation.

Notwithstanding the prudent-man rule, present law limits the portion of any portfolio governed by this law which can be invested in equities to 55% (or to 65% if at least 10% of the portfolio is invested in one or more index funds which seek to replicate the performance of the chosen index or indices). At least one retirement system has expressed an interpretation of the current law's 55%/65%/10% equity limitation as not applying to private equity, but only a limit on public equity holdings. However, current law does not specify whether private equity is, or is not, considered part of "equities" subject to the sixty-five percent limit.

Proposed Law

HB 23 will add a twenty-five percent limitation to the portion of any portfolio governed by this law which can be invested in alternative investments.

While there may be no official definition, generally speaking, alternative investments include any investment not falling into the traditional publicly traded asset classes of stocks, bonds and cash. These might include private equity, hedge funds, commodities, real estate, futures, private debt, complex derivatives, infrastructure, and many others known by various names, and even include less common investments like collectibles.

Implications of the Proposed Changes

Alternatives investments are different from more traditional (non-alternative) investments. Their investment-related expenses are usually significantly higher; they are not as well-understood; they are usually less liquid; to some, their valuations are not as reliable as those investments that have a deep, active and robust market for trading and reporting with standard market-based prices. Colloquially speaking, alternative investments seem more risky. But alternative investments do not necessarily have more volatility risk than publicly traded equities, depending on which subclasses are considered; but usually have more volatility risk than traditional fixed income investments. However, they are generally expected to play a desirable role in pension investment portfolios, particularly to diversify and take advantage of favorable correlations (or non-correlations) among other asset classes and to provide up-side potential for returns. Further discussion of alternative investments is beyond the scope of this Actuarial Note.

HB 23 would require a change in the allocation of assets for applicable retirement systems that exceed the limit, as interpreted.

Consider the following table, derived from inspection of the retirement systems' most recent available investment policy statements. It reflects the "target" allocation to alternative investment asset classes. The systems' investment policy statements generally specify a minimum level, a target, and a maximum level of holdings. This table presents the targets. Their actual holdings at any given time vary based on tactical shifts or relative investment performance before and after re-balancing.

Asset Allocation Targets	LASERS	TRSL	LSERS	LSPRS	ASSR	CCRRF	DARS	FRS	LSPRF	MERS	MPERS	PERS	ROVERS
Public Equity	57.0%	28.0%	55.0%	62.5%				57.0%		50.0%	53.0%	52.0%	
Alternative Assets Allocations													
Private Equity	14.0%	22.0%	8.0%	5.0%				4.0%		2.0%	5.0%	3.0%	
Absolute Return	8.0%												
Global Asset Allocation	7.0%												
Infrastructure		1.5%								3.0%			
Commodities		1.0%							3.0%				
Farmland - Row Crops		1.0%											
Timber				1.0%								2.0%	
Natural Resources										3.0%			
Real Assets (Liquid)											2.0%		
Master Limited Partnerships						5.0%							
Hedge Funds				2.0%		10.0%			7.0%		5.0%	3.0%	
Global Tactical Asset Allocation								5.0%			6.0%		
Risk Parity								5.0%					
Real Return													5.0%
Opportunistic/Other			4.0%										
Private Debt										3.0%			
Alternatives (w/o distinction)					5.5%		4.8%						
Private Real Estate (Core)		5.0%											
Real Estate (Core)										4.0%			
Private Real Estate (Non-Core)		5.0%											
Private Real Estate (w/o distinction)									5.0%				
Real Estate (w/o distinction)			8.0%	7.5%		10.0%		6.0%			8.0%	5.0%	10.0%
Real Estate Investment Trusts		2.0%							1.0%				
Total Alternative Assets Allocations	29.0%	37.5%	20.0%	15.5%	5.5%	25.0%	4.8%	20.0%	16.0%	15.0%	26.0%	13.0%	15.0%

Among the 13 systems above, several of them do not now have a target for alternatives that exceeds the limit imposed in HB 23. However, three others have adopted targets that exceed the limits expressed in HB 23.

The effect of HB 23 will depend on:

1. Whether the system's target asset allocation or actual asset allocation for alternative investments exceeds the 25% limit of HB 23.

   If this limit is not exceeded now or in the future, the proposed bill will have no effect. If the limit is not exceeded at the effective date of the proposed bill, policies will need to be implemented to ensure the limit is not exceeded in the future. To the extent the limit is exceeded at the effective date of the proposed bill, a system will need to liquidate holdings in one or more of its alternative investments and re-invest the proceeds in more traditional publicly traded stocks or bonds.

2. How the term "equities" in current law is interpreted. If a system needs to reduce its allocation to alternatives for exceeding the 25% limit of HB 23, other more traditional publicly traded stock or bond asset classes will be increased.

   Some systems have interpreted the 55%/65%/10% limit as applying only to publicly traded equities, rather than to all equity holdings (public, private, and embedded within other asset classes). Those systems may feel free to re-invest any liquidated alternative investments into publicly traded equities -- even if the total of their publicly traded equities plus private equities plus any other equities embedded within other alternative investments might otherwise exceed the 55%/65%/10% limit -- as long as their publicly traded equities after the re-investment does not exceed the 55%/65%/10% limit.

By reinvesting some of its alternative investments into more traditional publicly traded stocks or bonds, a system may increase or decrease its expected and actual future rates of return, volatility, and correlations among asset classes. Depending on the magnitude and re-investment, this may increase or decrease a system's actuarial accrued liabilities and employer contribution levels over time.

For several systems, HB 23 will have no actuarial effect. For those systems that liquidate some alternative investments and re-invest the proceeds into non-alternative investments, the actuarial effect is unknown. For it is not known which types of alternative investments would be liquidated, it is not known which types of non-alternative investment will receive the proceeds, and it is not known how the pension funds will perform after such changes compared to how they might perform without making such changes.

The effective date required for compliance may be good timing or bad timing for liquidation from one asset class and re-investing into another. Systems may develop a plan for prudently moving toward compliance.

I. ACTUARIAL ANALYSIS SECTION

A. Analysis of Actuarial Costs
(Prepared by the LLA)

This section of the actuarial note pertains to actuarial costs or savings associated with the retirement systems, with OPEB, and with other government entities.

1. Retirement Systems

The actuarial cost or savings of HB 23 associated with the retirement systems is estimated to be $0. The actuary's analysis is summarized below.

Limiting alternative investments in the portfolio does not directly affect benefits payable to members.

2. Other Post-Employment Benefits (OPEB)

The actuarial cost or savings of HB 23 associated with OPEB, including retiree health insurance premiums, is estimated to be $0. The actuary's analysis is summarized below.

The liability for post-retirement medical insurance protection provided to retirees is not affected by limiting alternative investments in the portfolio.

3. Other Government Entities

The actuarial cost or savings of HB 23 associated with government entities other than those identified in HB 23, is estimated to be $0.

B. Actuarial Data, Methods and Assumptions
(Prepared by the LLA)

Unless indicated otherwise, the actuarial note for HB 23 was prepared using actuarial data, methods, and assumptions as disclosed in the most recent actuarial valuation report adopted by PRSAC. The data, methods and assumptions are being used to provide consistency with the actuary for the retirement system who may also be providing testimony to the Senate and House retirement committees.

C. Actuarial Caveat
(Prepared by the LLA)

There is nothing in HB 23 that will compromise the signing actuary's ability to present an unbiased statement of actuarial opinion.

II. FISCAL ANALYSIS SECTION

Tables A, B, C1, C2, and D have been prepared by the LLA. These tables include information developed by the LLA from its own sources as well as information supplied by Tanesha Morgan of the Legislative Fiscal Office (LFO). Table D includes all costs and savings pertaining to Louisiana government.

The LFO has requested that the information supplied by Tanesha Morgan be included in the actuarial note verbatim and without any changes. This information is shown below under Fiscal Costs Developed by the LFO. The reader should note that complete fiscal cost information is contained within Table D. Fiscal costs developed by the LFO only reflect the portion of Table D that was supplied by the LFO.

Table A pertains to fiscal costs or savings associated with the retirement systems; Table B pertains to OPEB; Tables C1 and C2 pertain to fiscal costs associated with government entities other than the retirement systems and sponsors. Table D is the cumulative sum of Tables A, B, C1, and C2.

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A. Estimated Fiscal Impact – Retirement Systems
(Prepared by the LLA using information supplied by the LFO)

1. Narrative

Table A shows the estimated fiscal impact of the proposed legislation on the retirement systems and the government entities that sponsor them. A fiscal cost is denoted by “Increase” or a positive number. Fiscal savings are denoted by “Decrease” or a negative number. A revenue increase is denoted by “Increase” or a positive number. A revenue decrease is denoted by “Decrease” or a negative number.

Retirement System Fiscal Cost: Table A

EXPENDITURES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

REVENUES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

HB 23 will have the following effects on retirement related fiscal costs and revenues during the five year measurement period.

2. Expenditures:

It is possible that limiting the portion of a portfolio invested in alternative investments will affect the rate of return. This could be a positive change or a negative change, and over time it may or may not balance out. If portfolios perform better as a result of this change, then required contributions will go down.

3. Revenues:

It is possible that limiting the portion of a portfolio invested in alternative investments will affect the rate of return. This could be a positive change or a negative change, and over time it may or may not balance out. If portfolios perform less well as a result of this change, then required contributions will go up.

B. Estimated Fiscal Impact – OPEB
(Prepared by the LLA using information supplied by the LFO)

1. Narrative

Table B shows the estimated fiscal impact of HB 23 on actuarial costs or savings associated with OPEB and the government entities that sponsor these benefit programs. Fiscal costs or savings in Table B include administrative costs associated with the government entity sponsoring the OPEB program. A fiscal cost is denoted by “Increase” or a positive number. Fiscal savings are denoted by “Decrease” or a negative number. A revenue increase is denoted by “Increase” or a positive number. A revenue decrease is denoted by “Decrease” or a negative number.

OPEB Fiscal Cost: Table B

EXPENDITURES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

REVENUES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

HB 23 will have no effect on OPEB related fiscal costs and revenues during the five year measurement period.

C. Estimated Fiscal Impact: Other Government Entities (unrelated to the retirement systems or OPEB)
(Prepared by the LLA using information supplied by the LFO)

1. Narrative

From time to time, legislation is proposed that has an indirect effect on cash flows associated with other government entities, unrelated to the retirement systems or OPEB. Table C shows the estimated fiscal impact of HB 23 on such government entities. A fiscal cost is denoted by "Increase" or a positive number. Fiscal savings are denoted by "Decrease" or a negative number.

Fiscal Costs for State Government Entities Other than Retirement Systems: Table C1
(Prepared by Tanesha Morgan, Legislative Fiscal Office)

EXPENDITURES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

REVENUES	2018-19	2019-2020	2020-2021	2021-2022	2022-23	5 Year Total
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

Fiscal Costs for Statewide, Parish, Municipal, and Local Government Entities Other than Retirement Systems: Table C2
(Prepared by Bradley Cryer, Assistant Legislative Auditor)

EXPENDITURES	**2018-19**	**2019-2020**	**2020-2021**	**2021-2022**	**2022-23**	**5 Year Total**
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

REVENUES	**2018-19**	**2019-2020**	**2020-2021**	**2021-2022**	**2022-23**	**5 Year Total**
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

HB 23 will have the following effects on fiscal costs and revenues related to other government entities during the five year measurement period.

2. Expenditures:

State Governmental Entities Other than the Retirement Systems and Sponsors – There is no anticipated direct material effect on governmental expenditures as a result of this measure.

Statewide Governmental Entities Other than the Retirement Systems and Sponsors – This bill is not expected to have a fiscal impact.

3. Revenues:

State Governmental Entities Other than the Retirement Systems and Sponsors – There is no anticipated direct material effect on governmental revenues as a result of this measure.

Statewide Governmental Entities Other than the Retirement Systems and Sponsors – This bill is not expected to have a fiscal impact.

D. <u>Estimated Fiscal Impact − All Retirement Systems, OPEB, and All Government Entities</u> (Prepared by the LLA)

1. Narrative

Table D shows the estimated fiscal impact of HB 23 on all government entities within the state of Louisiana. Cell values in Table D are the sum of the respective cell values in Table A, Table B, and Table C. A fiscal cost is denoted by "Increase" or a positive number. Fiscal savings are denoted by "Decrease" or a negative number. A revenue increase is denoted by "Increase" or a positive number. A revenue decrease is denoted by "Decrease" or a negative number.

Total Fiscal Cost: Table D (Cumulative Costs from Tables A, B, C1 & C2)

EXPENDITURES	**2018-19**	**2019-2020**	**2020-2021**	**2021-2022**	**2022-23**	**5 Year Total**
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

REVENUES	**2018-19**	**2019-2020**	**2020-2021**	**2021-2022**	**2022-23**	**5 Year Total**
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

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<u>Fiscal Information Received by the LLA from the LFO</u>

1. Narrative

<u>Proposed law</u> provides that no more than 25% of a plan's total portfolio can be in alternative investments.

Fiscal Costs for Other Government Entities

EXPENDITURES	**2018-19**	**2019-2020**	**2020-2021**	**2021-2022**	**2022-23**	**5 Year Total**
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

REVENUES	**2018-19**	**2019-2020**	**2020-2021**	**2021-2022**	**2022-23**	**5 Year Total**
State General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Agy Self Generated	0	0	0	0	0	0
Stat Deds/Other	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Local Funds	0	0	0	0	0	0
Annual Total	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

HB 23 will have the following effects on fiscal costs and revenues related to other government entities during the five year measurement period.

2. Expenditures:

There is no anticipated direct material effect on governmental expenditures as a result of this measure.

3. Revenues:

There is no anticipated direct material effect on governmental revenues as a result of this measure.

<u>Credentials of the Signatory Staff:</u>

Paul T. Richmond is the Manager of Actuarial Services for the Louisiana Legislative Auditor. He is an Enrolled Actuary, a member of the American Academy of Actuaries, a member of the Society of Actuaries and has met the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein.

John D. Carpenter, Legislative Fiscal Officer, and Bradley Cryer, Assistant Legislative Auditor, have supervised the preparation of the fiscal analyses contained herein.

<u>Information Pertaining to Article (10)(29)(F) of the Louisiana Constitution</u>

☐ HB 23 contains a retirement system benefit provision having an actuarial cost.

No member of any Louisiana public retirement system will receive a larger benefit with the enactment of HB 23 than what he would have received without HB 23.

Dual Referral Relative to Total Fiscal Costs or Total Cash Flows:

The information presented below is based on information contained in Table D for the first three years following the 2018 regular session.

Senate

☐ 13.5.1 Applies to Senate or House Instruments.

If an annual fiscal cost ≥ \$100,000, then bill is dual referred to:

Dual Referral: Senate Finance

☐ 13.5.2 Applies to Senate or House Instruments.

If an annual tax or fee change ≥ \$500,000, then the bill is dual referred to:

Dual Referral: Revenue and Fiscal Affairs

House

☐ 6.8F Applies to Senate or House Instruments.

If an annual General Fund fiscal cost ≥ \$100,000, then the bill is dual referred to:

Dual Referral to Appropriations

☐ 6.8G Applies to Senate Instruments only.

If a net fee decrease occurs or if an increase in annual fees and taxes ≥ \$500,000, then the bill is dual referred to:

Dual Referral: Ways and Means