OFFICE OF THE STATE COMPTROLLER
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New York State Common Retirement Fund: Performance of a Diversified Portfolio Compared to a Fixed-Income Portfolio

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SYNOPSIS

A review was undertaken to determine the impact that a fixed-income only strategy would have had on the Common Retirement Fund (Fund) and employer contributions. This review found that, even after factoring in the significant losses of 2008, an investment strategy using only fixed-income instruments would have produced a Fund that is substantially underfunded and nearly $57 billion lower in value than the current Fund. Moreover, a fixed-income strategy would have required significantly larger employer contributions (an additional $33 billion to $35 billion) from the State and local governments to achieve an adequately funded system that is equal to the current Fund.

BACKGROUND

The Common Retirement Fund of the New York State and Local Retirement System is the pension fund for the employees of the State of New York and the employees of most local governments in New York.

The system actuary annually determines the cost of funding the future retirement benefits of its existing members. The calculation is based on several assumptions concerning employees, including the number of years they are expected to work, their expected rate of pay over their working life, and their mortality. From that total, the actuary subtracts the actuarial value of assets and member contributions. What remains is the employers' required contributions. The employer is the State of New York as well as local governments throughout the State who are a part of the retirement system.

Over the 20-year period ending March 31, 2010, the annual return from the diversified investment portfolio of the Fund averaged 8.7 percent. This robust return was possible because the Fund invested in a balanced mix of equities as well as fixed-income investments.

Because markets are volatile, one consequence of investing in equities is that it contributes to fluctuations in employer contribution rates. In times of high rates of market return, investment returns pay for most of the cost of funding members' future retirement benefits. In times of market losses or low rates of return, employer contributions rise.

The tremendous losses resulting from the near market collapse of 2008 have caused significant increases in employer contribution rates in New York and nationally. Some have recommended that pension funds should invest in fixed-rate securities exclusively to avoid the volatility associated with investments in stock and other equities.

For more than two decades, the Common Retirement Fund has invested in a diverse, balanced portfolio of equities and fixed-income investments, and has a strong history of being adequately funded, having consistently achieved a funding ratio near or above 100 percent over this period. (Adequate funding requires that actuarial valuations use responsible actuarial assumptions and that the plan collect actuarially required contributions.) A comparison of the actual market returns of the Fund to a fixed-income rate of return over a 20-year period shows that a shift to a fixed-income portfolio would have had a significant impact on both Fund results and employer contribution rates.

ASSUMPTIONS

Scenario 1. Impact on Fund Balance. The actual value of the Fund as of March 31, 2010 was compared to what the Fund's value would have been if invested solely in fixed-income instruments over the past 20 years. For comparison purposes, benefit payments to members were assumed to be equal to the actual payments made and actual employer contributions were used.

While fixed-income securities are less volatile than equities, they nonetheless vary over time. Over the 20-year period examined, the annual fixed-income rate of return was approximated based on the historical average rates determined by the Leuthold Group. The approximated annual rates ranged from 5.2 percent to 9.0 percent over that period.

Scenario 2. Impact on Employer Contributions. Actual employer contributions were compared to employer contributions needed to achieve the Fund's current level of funding had it been invested solely in fixed-income investments over the past 20 years. For comparison purposes, benefit payments were assumed to be equal.

Spreading the contributions over a 20-year period can be accomplished in a number of ways, each of which with a fixed-income only scenario results in a larger aggregate employer contribution over time in the mid-$30 billion range. The scenario depicted in this report adds a percentage of the difference between the actual assets and the fixed-income theoretical assets each year in order that the March 31, 2010 assets match.

RESULTS

Scenario 1. Impact on Fund Balance. If a fixed-income only rate of investment return had been used over the 20-year period through March 31, 2010, the size of the Fund would be valued at approximately $76 billion. This is approximately $57 billion **less** than the Fund's total of $133 billion as of March 31, 2010. This level of funding would have resulted in New York's retirement system being substantially underfunded.

Fund Balance	(in millions)
Actual Common Retirement Fund	$132,500
Fund Using Fixed-Income Return	$ 75,768
Difference	**$(56,732)**
Percent Difference	**-42.8%**

Scenario 2. Impact on Employer Contributions. The required employer contributions invested in fixed-income instruments over this 20-year period necessary to achieve a Fund equal to the March 31, 2010 Fund amount of $133 billion would total from $56 billion to more than $57 billion. This is $33 billion to $35 billion more than the $22 billion in **actual** employer contributions that were needed during this period, or 148 to 155 percent more than the actual contributions.

Employer Contributions	(in millions)
Actual Employer Contribution	$ 22,430
Necessary Fixed-Income Contribution	$ 57,267
Difference	**$ 34,837**
Percent Difference	**155%**

CONCLUSION

Over the 20-year period reviewed, investment earnings based on the actual diversified portfolio were significantly better than earnings would have been using fixed-income investments exclusively (even after the significant losses of 2008). Actual contributions invested using a fixed-income only rate of return would have resulted in a pension fund that is significantly less in value than the current Fund value and dangerously underfunded ($76 billion versus $133 billion actual).

Investing exclusively in fixed-income securities to achieve the Fund's current funding level would have necessitated an additional $33 billion to $35 billion in employer contributions over the period, which is an increase of 148 to 155 percent from the actual contributions made.

	ACTUAL DATA					Scenario 1		Scenario 2	
	Contributions		Benefits	Rate of	Actual	Fixed-Income	Scenario 1	Employer	Scenario 2
SFY	Employer	Employee		Return	Fund Value	Rate of Return	Fund Value	Contributions	Fund Value
1990					45,189.3		45,189.3		45,189.3
1991	(72.4)	255.3	1,834.2	11.7%	48,945.5	9.0%	47,531.0	(72.4)	47,531.0
1992	356.8	287.0	2,067.7	10.7%	51,925.8	8.8%	50,227.0	512.7	50,390.0
1993	369.8	284.1	2,267.9	12.5%	56,428.9	8.6%	52,863.0	539.0	53,217.0
1994	530.1	307.5	2,393.7	6.9%	58,416.8	8.4%	55,682.0	884.1	56,435.0
1995	315.1	334.0	2,527.9	8.8%	63,406.6	8.2%	58,292.0	533.5	59,334.0
1996	776.9	341.9	2,877.9	21.8%	74,827.9	8.0%	61,126.0	1,225.7	62,718.0
1997	903.5	348.2	3,122.0	10.9%	82,333.8	7.8%	63,951.0	2,238.0	67,053.0
1998	462.6	369.4	3,305.0	30.4%	104,921.8	7.6%	66,244.0	2,146.5	71,330.0
1999	291.7	399.8	3,482.0	8.8%	111,008.7	7.4%	68,252.0	3,993.5	77,553.0
2000	164.5	422.7	3,720.2	17.8%	127,138.9	7.2%	69,920.0	3,851.3	83,711.0
2001	214.8	319.1	4,181.0	-8.7%	112,432.9	7.0%	71,040.0	5,000.6	90,749.0
2002	263.8	210.2	4,488.3	2.8%	111,168.5	6.8%	71,720.0	2,653.4	95,240.0
2003	651.9	219.2	4,984.6	-10.2%	95,598.3	6.6%	72,204.0	2,407.2	99,090.0
2004	1,286.5	221.9	5,347.5	28.8%	119,245.0	6.4%	72,863.0	1,286.5	101,470.0
2005	2,964.8	227.3	5,674.7	8.5%	126,083.5	6.2%	74,821.0	4,923.6	107,221.0
2006	2,782.2	241.2	6,028.9	14.6%	140,453.3	6.0%	76,215.0	4,860.8	112,700.0
2007	2,718.6	250.2	6,383.4	12.6%	154,575.5	5.8%	77,122.0	5,777.0	118,870.0
2008	2,648.4	265.7	6,835.6	2.6%	153,877.7	5.6%	77,410.0	6,583.1	125,540.0
2009	2,456.2	273.3	7,212.1	-26.4%	108,960.7	5.4%	76,987.0	5,579.0	130,923.0
2010	2,344.2	284.3	7,718.9	25.9%	132,500.2	5.2%	75,768.0	2,344.2	132,508.0

Totals: **22,430.0** ← **Actual Employer Contributions** **Scenario 2 Required Employer Contributions** → **57,267.4**

Difference between Scenario 1 Fixed-Income Fund value and actual Fund value → (56,732.2)

Difference between Scenario 2 employer contribution and actual employer contribution → 34,837.4