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Highlights

- Boston is on schedule to reach full funding of its \$1.5B pension liability in 2025, 10 years from now
- Boston's 70.7% funded ratio is below the 80% funded ratio threshold used by experts to identify healthy pension systems
- Employees who retired in 2013 received an average annual pension of \$48,223. Teachers averaged \$58,403 police officers \$66,145, and firefighters \$87,944

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Revisiting Boston's Pension System

Financial integrity of system has improved but more change is needed

The State-Boston Retirement System (SBRS) is the largest local system and the third largest retirement system in Massachusetts. The SBRS is 70.7% funded as of January 1, 2012 with an outstanding unfunded liability of \$1.5 billion. The liability estimate assumes that investments will yield an annual 7.75% return, the City will increase its pension appropriation by 9.25% annually and that the unfunded liability will be fully paid down by June 30, 2025.

In 2010 the Research Bureau issued a comprehensive [study](#) of the Massachusetts pension system that included a section on the SBRS that raised concerns about the system's unfunded liability, funded ratio, disability pension backlog, pension operational systems limitations and its unique responsibilities for teacher pensions. The report also noted expected initiatives and legislation to address some of these issues. Four years later, the purpose of this report is to revisit these issues and provide an updated assessment of the SBRS and recommend further organizational, administrative and legislative reforms. Further comprehensive reform of the state pension system will be necessary, but this report focuses on the financial condition and management of the SBRS.

The State-Boston Retirement Board (SBRB) and City have taken several steps to improve the fiscal integrity of the retirement system by more accurately acknowledging the pension liability and investment trends. Consequently, the SBRS compares favorably to the other retirement systems in Massachusetts in terms of funding ratio and years to reach full funding. Even so, the following recommendations should be implemented to reduce the City's pension liability and better manage the operation of the SBRS:

- No change to the SBRS should be approved, such as an increase in the Cost of Living Adjustment (COLA) base, unless it would not require an extension of the years to reach full funding beyond 2025
- Responsibility for pension administrative services for Boston teachers should be transferred to the State Teachers' Retirement System as it is for all other municipalities in Massachusetts
- The Board should consider shifting a portion of its assets to PRIT to take advantage of the state's higher investment performance in selected areas
- The Board should ensure that the capabilities of its new \$25.7 million Vitech pension software system are fully utilized, and that the staff has the required mix of skills and experience to achieve that objective

Massachusetts Retirement System

All employees working in state or local government in Massachusetts receive retirement benefits under one defined-benefit pension plan administered by 105 retirement systems. This network of retirement systems includes two state-funded systems - the State Employers' Retirement System and the Massachusetts Teachers' Retirement System – and 103 local systems serving municipalities, counties and public authorities. The pension plan and all 105 retirement systems are governed by Chapter 32 of the Massachusetts General Laws.

The Public Employee Retirement Administration Commission (PERAC) oversees all 105 retirement systems in the state. PERAC is charged with enforcing Chapter 32 and monitoring the funding, investment and administrative practices of all retirement systems. The Massachusetts Pension Reserves Investment Management Board (PRIM) is the state's investment manager and has general supervision of the Pension Reserves Investment Trust (PRIT Fund), which holds the retirement assets of the two state systems and all or a portion of assets of several municipal systems. A retirement board governs each system, manages its operations, and, in most cases, its investments.

Massachusetts Public Pensions - The state operates a defined-benefit pension system that guarantees that a specific annual retirement allowance will be paid for the rest of the retiree's or beneficiary's life. The employer is responsible for maintaining the allowance regardless of economic climate or investment performance. State and local employees are vested, or eligible to receive a public pension, at

age 55 after 10 years of creditable service or after 20 years of credible service regardless of age. Employees hired after April 2, 2012 are only vested at age 60 after 10 years of creditable service. A unique aspect of the Massachusetts pension system is that its state and local employees do not contribute to Social Security and therefore can only receive Social Security benefits based on other employment.

There are three types of retirement benefits:

- Regular (superannuation)
- Ordinary disability
- Accidental disability

Most employees receive a regular (superannuation) pension. The size of the retirement allowance depends on the employee's years of creditable service, age at retirement, job group, and highest salary average for three consecutive years. For employees hired after April 2, 2012, the average now is based on the highest five consecutive years.

The Massachusetts retirement system awards more generous benefits earlier to employees in higher, more dangerous job classifications. There are four job group classifications:

- Group 1 General employees
- Group 2 Employees with hazardous duties
- Group 3 State Police Officers
- Group 4 Public safety officers

Group classification also determines at what age an employee receives a full benefit and the percentage of salary contributed. For example, most current Group 4 employees can receive full benefits at age 55, while a Group 1 employee receives them at age 65. For employees hired after April 2, 2012, the age increased by two years for each group.

Funding Pension Benefits - Massachusetts retirement systems fund their defined-benefit plans through a combination of employee contributions, employer contributions, and investment returns. Employer and employee contributions are made annually throughout an employee's career and are funded through two basic payments to retirement systems. A *normal cost payment* is shared between an employee (generally 70% of the annual cost) and the employer (generally 30%) to fund the benefits earned by active employees in the current year. The employer also funds an *amortization payment* to pay down the large unfunded liability over time. This amortization payment generally constitutes three-quarters of the employer's annual pension costs. Consistent *investment performance* is a critical component of the employer's financial commitment since how well it meets its investment targets directly impacts its annual pension appropriation.

Employee contribution rates are determined legislatively by date of hire, regardless of position, and cannot be changed during an employee's career. Public employees hired today generally contribute 9% of their salary and an additional 2% on the portion of their salary in excess of \$30,000. Employees hired before January 1, 1975 are paying as low as 5% of their salary.

Boston's Retirement System

The State-Boston Retirement System is the largest local system and the third-largest retirement system in Massachusetts. As of January 1, 2014, 34,986 individuals were actively receiving or accruing benefits from the SBRS for employment with the City of Boston and four other governmental units, (the Boston

Redevelopment Authority, Boston Water & Sewer Commission, Boston Housing Authority, and the Boston Public Health Commission). The State-Boston Retirement Board manages the administration of benefits to members, collects employee and employer payments for pension benefits and oversees the investment of \$4.1 billion in assets as of June 30, 2014, up from \$3.6 billion in the last full actuarial evaluation in 2012. As will be explained below, statements of the SBRS' pension funded ratio, unfunded liability and assets exclude Boston teachers, but membership information and operational expenditures do include teachers.

The City of Boston is by far the SBRS's largest participating employer, with its 2014 appropriation of \$164.6 million, which constitutes 81.1% of the total \$203.1 million contribution budgeted for the SBRS this year, excluding teacher assets.

Under the oversight of PERAC, the SBRS conducts an actuarial valuation every two years, completed by an outside actuary. The most recent valuation as of January 1, 2012 indicated that the SBRS was 70.7% funded with an outstanding Unfunded Actuarial Accrued Liability (UAAL) of \$1.5 billion. The valuation assumed investments will yield an annual 7.75% return and planned for the unfunded liability to be fully paid down by June 30, 2025.

The Center for Retirement Research at Boston College recently completed a study of 150 state and local pension plans with a total of \$2.9 trillion in assets and \$4.1 trillion in liabilities. This study, which included the SBRS and many comparable plans, found that the SBRS compares favorably with this nationwide sample of state and local plans, with a funded ratio of 70.7% compared to the sample average

of 72%. Unlike the sample plans, which on average contribute 83% of the Annual Required Contribution (ARC), the SBRS makes 100% of the ARC payments annually. While Boston's payment as a percent of payroll of 19.8% is higher than the average of 17.6% for the sample, by paying 100% of the ARC, Boston will ensure it reaches full funding by 2025, while many of the other plans in this sample will continue to work towards full funding after 2025. While the SBRS compares favorably to this sample group of state and local systems, it does not meet the 80% funded ratio threshold used by the Pew Research Center and other experts as a threshold to determine a healthy pension system.

Table 1
Actuarial Valuation of SBRS Assets*

(\$ in millions)	
Actuarial Accrued Liability (AAL)	(\$5,060.07)
Actuarial Value of Assets	\$3,575.39
Unfunded (surplus) AAL	(\$1,484.68)
Normal Cost	\$125.27
Total Appropriation/ARC	\$170.14
ARC as % of Payroll	19.8%

*Based on 2012 Actuarial Report, not including teacher assets

The SBRS compares favorably to the other retirement systems in Massachusetts with only 19 out of 105 systems, or 18%, having a higher funding ratio than the SBRS' 70.7% and only 11 other systems are scheduled to reach full funding by or before 2025. In 2012, the SBRS was one of 13 systems to use a 7.75% investment return assumption. In 2013, 32 systems used 7.75%, but only seven systems use an assumed investment rate of return lower than 7.75%. The SBRS has also adopted a funding schedule which increases that City's pension appropriation by 9.25%, the most aggressive of all the Massachusetts systems.

Participants in SBRS

Employees working more than 20 hours a week for one of the five SBRS employers are required to join and contribute to the SBRS. As of January 1, 2014, 34,986 individuals were actively receiving or accruing benefits, consisting of:

- 20,011 members currently employed by one of the governmental units in the SBRS
- 14,975 retirees and beneficiaries receiving pension benefits, of which 3,307 are beneficiaries receiving survivor benefits

There were also 8,992 inactive members no longer working for a participating employer, but who are eligible for benefits or refunds.

Table 2
SBRS Membership

Type	2011	2014	Percent of 2014 Active Membership
Employees			
Active Employees	19,399	20,011	57.2%
Retirees			
Superannuation	9,826	9,843	28.1%
Disability	1,847	1,825	5.2%
<i>Subtotal Retirees</i>	<i>11,673</i>	<i>11,668</i>	<i>33.4%</i>
Beneficiaries			
Beneficiaries	2,516	3,307	9.5%
Total Active Membership	33,588	34,986	100.0%
Inactive	8,787	8,992	
Total Membership	42,375	43,978	
Active Membership as % of Total	79.3%	79.6%	

As of December 31, 2013, the average active employee had worked in public service for 14 years and was 46.8 years old with an average salary of \$45,080. The average SBRS retiree is 74.8 years old and receives an annual pension

benefit of \$36,108. However as shown below, employees who retired in 2013 received an average pension of \$48,223. Teachers averaged \$58,403, Police Officers \$66,145, and Firefighters \$87,944. These averages for police and firefighters fluctuate greatly year to year due to the rank and seniority of the retirees. In 2013, a higher than normal number of chiefs and other high ranking firefighters retired.

Table 3
SBRS Average Allowance by Category
 Calendar 2005 - 2013

Year	All Retirees	Teachers	Police	Fire
2008	\$48,377	\$55,159	\$66,072	\$75,043
2009	\$51,399	\$63,490	\$64,909	\$81,320
2010	\$49,137	\$62,193	\$69,627	\$72,304
2011	\$46,890	\$58,042	\$64,055	\$74,306
2012	\$50,915	\$60,545	\$74,423	\$81,005
2013	\$48,223	\$58,403	\$66,145	\$87,944
Increase 08-13	-\$154	\$3,244	\$74	\$12,900
% Change	-0.3%	5.9%	0.1%	17.2%

Averages by Department for 2008 based on data available as of 1/29/2010. All retirees averages and 2009 data based on data available as of 2/23/2010. All data from 2010 - 2012 as of 1/23/2013. All retirees and teacher data from 2013 as of 12/31/2013. Uniformed data from 2013 as of 10/31/2014.

Teacher Pensions

Prior to 2010, the SBRS was the only local pension system in the state responsible for the administration, management, and funding of teacher pensions. Under previous state law, the City funded the teacher pensions annually and was mostly reimbursed by the state the following fiscal year. In 2009, the Commonwealth and City reached agreement (Ch. 112, Acts of 2010) for the state to assume responsibility for the funding of teacher pensions and investment management of teacher assets, which were transferred to PRIT. However, the agreement fell short of requiring the same separation of teacher responsibilities

mandated for all other local systems. The Massachusetts Teachers' Retirement System is responsible for the administration of all teacher pension services in each school district, except Boston. Nevertheless, the SBRS was required to continue to administer all teacher pension services. As part of the agreement, the Commonwealth pays 30% of the SBRS's administrative costs, excluding investment management costs, for maintaining teacher services. PRIM now manages the investment of all teacher assets, including Boston's.

SBRS Operations

The State-Boston Retirement System is governed by the State-Boston Retirement Board which is charged with investing the system's assets and managing the administration of retirement benefits under PERAC's oversight. The SBRS is an independent entity from the City of Boston and the other governmental units it serves. Nevertheless, the Board has been working collaboratively with the City Administration to ensure mutually beneficial financial planning.

The Board, like the other 102 local retirement boards, is composed of five members:

- Two active or retired members of the SBRS elected by the system's membership
- A member appointed by the Mayor
- The City Auditor, ex officio
- A member elected by the other four Board members. If the members cannot agree, the Mayor will appoint the fifth member.

The members serve three-year terms except the City Auditor who serves annually as an ex-officio member. The City Treasurer serves as custodian of the system's funds. The two Board

members elected by the membership have traditionally come from the ranks of the Boston Firefighters, Local 718 and the Boston Teachers Union. The Chair of the Board is elected by the members and usually has been the Local 718 representative. Currently, the Chairman is the member appointed by the Mayor.

An Executive Officer appointed by the Board manages the day-to-day operations of the Board and directs a staff of 41. The SBRS staff provide member support services, manage the benefit payroll, process retirement applications and perform daily administrative tasks. The current Executive Officer previously served as the Board’s Legal Counsel and was appointed permanent Executive Officer on June 18, 2014.

SBRS Finances

Financial statements from a retirement system differ from the balance sheets of other public agencies because retirement systems pre-fund benefit obligations. Consequently, the systems post large surpluses each year, even after paying millions in benefit expenses or funding the operating budget. Unlike a surplus for other public agencies, a surplus in the SBRS budget is needed in order to fund the systems \$1.5 billion unfunded liability. The major revenue sources for the SBRS include contributions from employees, employer contributions and earnings on system investments. The largest expense of the SBRS is the benefit payments to retired members and survivors. Administrative expenses include the Board’s operating costs, the largest expense being fees for investment services with private fund managers. In terms of non-operational finances, in 2013 SBRS paid \$537.8 million in benefits and received \$1,154.9 million in revenue from investment returns,

employer/employee contributions, and other sources. The fees paid to private investment managers are structured on an individual basis by fund and for calendar 2013 the cost was \$27.5 million.

The SBRS Operating Budget - The SBRS operational budget is funded by the annual investment returns from the pension fund and the 30% state reimbursement for administrative expenses. The SBRS Executive Officer and its Comptroller prepare the annual budget and the Board votes to approve it. The disproportionate nature of investment returns as the major budget revenue source has tended to result in budgets that are not disciplined by a set revenue estimate, which limits the budget’s value as a check on spending. From 2010 to 2013, actual expenditures, on average, were 20.9% lower than the revenues budgeted. The fact that no formal detailed budget document

Table 4
State-Boston Retirement System Finances

(\$ in Millions)

Revenues	CY2011	CY2012	CY2013
Employer Contribution	\$245.3	\$261.9	\$288.5
Employee Contribution	\$122.7	\$124.6	\$135.3
Investment Income	\$15.7	\$552.0	\$718.5
Miscellaneous	\$15.4	\$16.2	\$12.6
Total SBRS Revenue	\$399.0	\$954.8	\$1,154.9
Expenses	CY2011	CY2012	CY2013
Benefits	\$524.1	\$513.1	\$537.8
System Administration	\$23.4	\$26.2	\$35.5
Operating Costs	\$6.1	\$7.9	\$8.0
Management Fees	\$17.3	\$18.3	\$27.5
Miscellaneous	-	-	-
Total SBRS Expense	\$547.6	\$539.3	\$573.3
Net Asset Increase/(Decrease)	-\$148.6	\$415.4	\$581.6

was prepared in each of the four years contributed to this situation.

For the calendar 2014 budget, the Executive Officer and Comptroller prepared a detailed line-item budget based on expected actual spending which should align revenues and expenditures more closely. Even so, with the approval of the Board, additional investment assets can still be used during the year for additional operational expenditures. Starting in 2013, PERAC has required all retirement boards to convert their budgets from a fiscal to a calendar year basis.

Table 5
State-Boston Retirement System Operations
Budget-to-Actual Variance*

(\$ in Millions)

	FY10	CY11	CY12	CY13
Budget	\$7.00	\$10.76	\$10.21	\$10.00
Actual	\$6.27	\$6.77	\$8.08	\$8.47
Variance \$	-\$0.73	-\$3.99	-\$2.13	-\$1.53
Variance %	-10.42%	-37.05%	-20.90%	-15.33%

*Difference from System Finances due to accounting methods

SBRs Investment Management

The SBRs invests at the Board’s discretion. The System was investing \$4.1 billion as of January 1, 2014. This amount does not include \$1.4 billion in teacher assets which are permanently managed by PRIM as a result of the state assuming full responsibility for the funding of teacher pensions. Investment performance is a key component of funding the City’s pension obligation since it can mitigate the City’s annual appropriation requirement.

The Board manages its investments with the assistance of its investment consultant company, New England Pension Consultants (NEPC). NEPC advises the Board on the asset allocation mix for its investment of assets and

recommends private investment managers to be considered for each asset class such as bonds, various types of equities, real estate or more risky alternative investments like hedge funds or private equity. The Board makes the final decision on the overall asset allocation and which investment managers to hire after issuing requests for proposals, considering recommendations from NEPC and conducting interviews. In 2013, the Board engaged 58 outside investment managers at a cost of \$27.5 million. NEPC also provides the Board with investment and manager performance updates at each monthly meeting. Actual expenses for NEPC’s services in 2013 were \$580,000 and the budget in 2014 is \$598,500.

The Board is dependent on NEPC because investment expertise is not a prerequisite for election or appointment to the Board. In fact, the current Board has two members with some background knowledge of investment or financial management. In May 2012, the Executive Officer hired an in-house investment analyst to administratively oversee PERAC regulatory filings, manager meetings, diligence meetings, and the preparation of performance reports. This is the first time the SBRs has employed a full-time Investment Analyst with these responsibilities.

The SBRs’s current asset allocation is spread across nine asset classes and cash. As of January 1, 2014, the fund was invested in 52.3% equity, 22.8% fixed income, 21.3% alternative/nontraditional, and 3.5% cash. Though PERAC does not allow systems to invest directly in derivatives or commodities, the SBRs may invest in hedge funds and private equity funds that contain some investments in commodities and derivatives.

Table 6
Change in Asset Classes

% of Total Portfolio			
Asset Class	1988	2004	2014*
Cash	26.2%	9.8%	3.5%
Fixed Income	30.4%	24.7%	22.8%
T-Bills	14.8%	0.9%	1.9%
Domestic	15.5%	17.6%	15.2%
International	0.0%	6.2%	5.7%
Global Equity	40.9%	56.4%	52.3%
Domestic	40.9%	40.9%	27.5%
International	0.0%	15.5%	24.8%
Alternative/ Nontraditional	2.5%	9.2%	21.3%
Real Estate	2.3%	5.6%	8.5%
Private Equity	0.3%	2.7%	4.7%
Hedge Funds	0.0%	0.9%	8.1%

* 2014 data does not include teacher assets, numbers may not add due to rounding

In line with national trends, over the past 25 years, the SBRS has shifted its investments from more traditional areas, such as U.S. Treasury bills, bonds and domestic equity to increase international exposure as well as make investments in more risky alternative asset classes such as real estate, private equity and hedge funds. Increasing pension expenses and declining interest rates have driven this shift in assets to investments that are more risky and less liquid, but offer a higher potential rate or return. In 1988, 97.5% of the SBRS's assets were invested in cash (26.2%), T-bills (14.8%), domestic bonds (15.5%) and domestic equity (40.9%). In 2014, only 48.1% of the SBRS' assets are invested in these four areas, though increase investment in new products in international fixed income and international equity allowed traditional investments to remain at 78.7% of the portfolio.

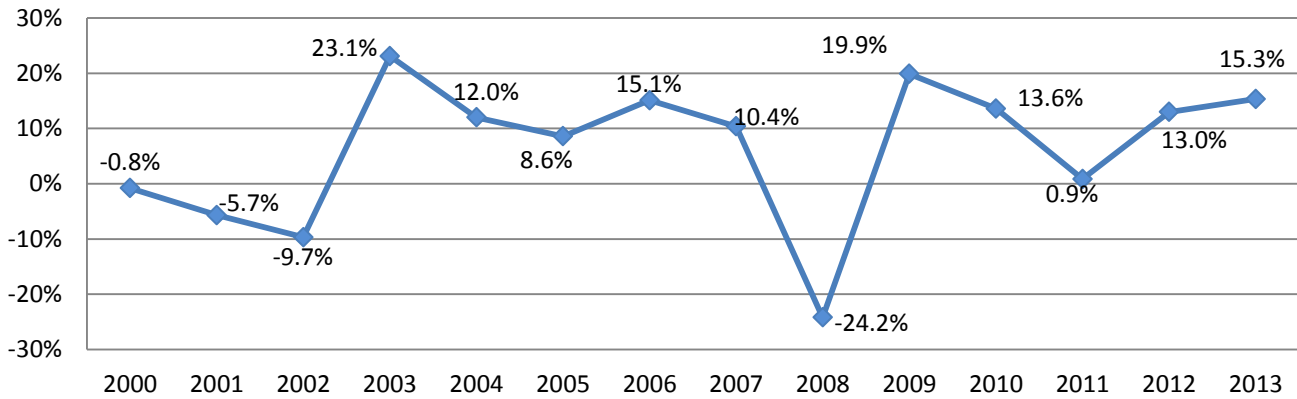
This shift to more alternative assets has been undertaken in order to reach the assumed

investment return of 7.75%. As of June 30, 2014, core fixed income accounts, which include Treasury Bills and domestic fixed income, earned a 4.7% one-year return for the SBRS, while global fixed income earned a return of 7.7%, both below the assumed rate of return of 7.75%. Private equity (10.3%), real estate (12.6%), and hedge funds (10.6%) all outperformed the assumed return of 7.75% which has encouraged the shift to these alternative, but more risky, investments. The 2013 return of 15.3% was earned through high one-year returns in large cap equity (37.6%) and small cap equity (37.8%), which have remained relatively constant portions of the portfolio, but experienced high returns due to favorable market conditions in 2013.

Investment Performance – In 2013, SBRS investments earned a full-portfolio return of 15.3%, exceeding its actuarially assumed rate of 7.75%. Even with that return, SBRS ranked below 48 other systems in Massachusetts. From 1985, when performance tracking began, through 2013, SBRS had an annualized return of 9.32%, which ranked it 33rd among the 105 systems.

In comparison, the state's PRIT fund had an annualized return of 9.74% between 1985 and 2013, ranking it twelfth overall and 0.42% ahead of the SBRS. While the Board deserves credit for making informed investment decisions that produce returns close to PRIM, the 0.42 percentage point difference in aggregate returns since 1985 cannot be ignored when applied to a fund with \$4.1 billion in assets.

Figure 1
SBRS Investment Returns CY2000-CY2013



While the SBRS and PRIT produce close performances with their composite return PRIT’s main drivers of long-term success include its freedom from PERAC regulation and full-time fund managers on staff. PRIM also has the capacity for large-scale investments with \$60.7 billion in assets at of June 30, 2014.

These flexibilities allow PRIT to outperform the SBRS in the alternative investment asset classes that have become so important to reaching assumed rates of return. While the SBRS has transferred all teacher assets to the general investment account at PRIT, it has not taken advantage of segmentation, or the ability for retirement boards to invest in individual investment accounts of PRIT, as an alternative to investing in the general investment account. Of the 94 systems with assets in PRIT, 38 were segmented investors in 2013.

Pension Cost Drivers

The Board has remained committed to the SBRS reaching full funding of its pension liability by 2025. At the same time, the Board has recognized the changing investment trends and need to update other pension related assumptions. These and other factors have had the effect of increasing the City’s pension liability which will require increased pension spending in order to maintain the full funding schedule.

Changing Return Assumptions – In 2012, the Board requested its actuarial firm to present different scenarios in which the annual return assumptions decrease from 8% to understand the impact on the unfunded liability and annual funding requirements. Based on this information, the Board, at its meeting on

Table 7
Return By Asset Class

% Return as of June 30, 2014

Asset Class	Fund	1 Year	3 Year	5 Year
Core Fixed Income	SBRS	4.7%	5.0%	6.2%
	PRIT	5.8%	4.5%	6.1%
	Difference	-1.1%	0.5%	0.1%
Value Added Fixed income	SBRS	7.4%	7.2%	10.4%
	PRIT	10.0%	7.1%	13.8%
	Difference	-2.6%	0.1%	-3.4%
Global Equity	SBRS	23.4%	12.0%	16.6%
	PRIT	5.8%	4.5%	6.1%
	Difference	17.6%	7.5%	10.5%
Private Equity	SBRS	10.3%	7.3%	8.6%
	PRIT	26.8%	17.2%	18.9%
	Difference	-16.5%	-9.9%	-10.3%
Real Estate	SBRS	12.6%	12.0%	7.9%
	PRIT	13.5%	12.1%	18.9%
	Difference	-0.9%	-0.1%	-11.0%
Hedge Funds	SBRS	10.6%	6.1%	6.8%
	PRIT	10.8%	6.9%	7.1%
	Difference	-0.2%	-0.8%	-0.3%

January 9, 2013, voted to reduce its investment return assumption to 7.75%, which increased the liability by \$127.8 million through 2025. The additional cost in fiscal 2015 is \$5.5 million, which the City’s operating budget will be able to absorb. The appropriation requirement will increase annually, and in 2025 the additional cost is estimated to reach \$31.5 million. The SBRS’ annual actuarial valuation report as of January 1, 2012 reflects the lower assumption. The Board indicated that it will periodically review the matter to determine whether further rate reductions are prudent. Even though this change increased the pension liability, the new assumption represents a more accurate assessment of the risk involved.

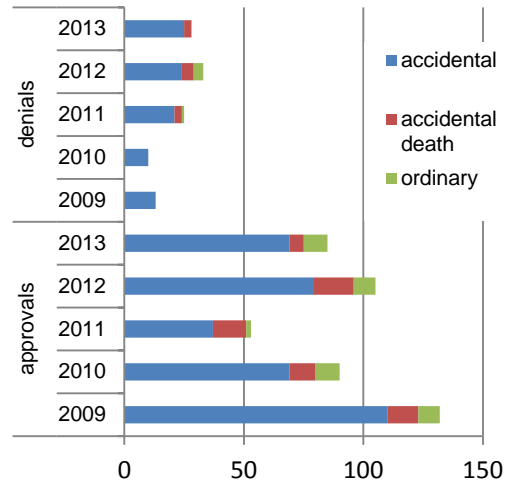
The Mortality Rate – Revising the mortality rate was another cost driver in terms of impact on the City’s pension liability. In the 2012 actuarial valuation, the standardized life expectancy tables were updated to account for the longer life expectancy of retirees and current employees and the resulting increased liability. The revised mortality rate provides a more accurate estimate of the pension liability and increased the liability by \$145.4 million through 2025.

Disability Pensions – The Board also modified its disability assumptions, decreasing the assumptions for Group 1 and Group 2 employees by 50% and increasing the assumption by 25% for Group 4 employees. These new assumptions more accurately reflect past experience with disability and decreased the unfunded liability by \$2.6 million.

The Board reviews individual disability cases before awarding any disability pension. Disability pensions are different because retirees can become eligible to receive larger

pensions or retire earlier due to their injuries. In 2009, laws around these pensions became more stringent and denials have increased since then.

**Figure 2
Disability Applications 2009-2013**



Additionally, the Board had experienced a backlog of disability pension applications, but in the fall of 2008, Board hired the accounting firm Grant Thornton to conduct a preliminary forensic audit of its disability operations, review the application process, and intercept disability fraud in order to reduce the average processing time closer to the state-mandated 180 days. Despite these efforts, only 18 of 80 disability cases, or 22.5%, were processed in 2013 within the 180 day period. The Board has recently hired an additional attorney to help it process disability application and other waivers, which should improve processing speeds in 2014.

Cost of Living Adjustment – The Board is authorized to vote annually whether to approve a cost of living adjustment (COLA) to pension payments. Boston’s COLA is based on 3% of the first \$13,000 of a retiree’s pension. The City established financial standards that should be met to support the Board’s adoption of a 3% COLA. However, a COLA has been approved

every year since 1997, even in fiscal 2010, when available operational revenues decreased by 5.3% from the prior year. For that reason, the actuarial financial report assumes an annual 3% COLA increase. The Commonwealth previously had funded the 105 systems' COLA costs but transferred the funding to each system in 1997.

The state Pension Reform Law of 2011 authorized local boards to increase their COLA bases in increments of \$1,000, which is ironic since raising the COLA base will increase the system's pension liability. In August 2012, for the first time since 1997, Boston raised the COLA base from \$12,000 to \$13,000, increasing its unfunded liability by \$28.9 million. In June 2013, the Board voted not to increase the base further even though members of the Boston City Council and the Boston Teachers Union had recommended increasing the base to \$16,000, which would have added \$69.4 million to the unfunded liability. Each year, as the Board decides whether to approve a COLA payment, it can expect requests from employee union officials to increase the COLA base as well.

The culmination of these steps taken by the Board to reduce its investment return assumption and adopt more realistic mortality and disability factors helped improve the financial integrity of the SBRS. These assumption changes, in combination with standard adjustments for salaries and administrative expenses, increased the unfunded liability by \$270.9 million and employer normal cost by \$8.1 million. However, the City was able to accommodate these policy changes in fiscal 2011 and maintain the 2025 funding schedule through the transfer of responsibility for funding the teacher pension liability to the state, which also enabled the City to apply the final state teacher reimbursement

payment of \$126.9 million to reduce the pension liability. In addition, the City applied a one-time pension reserve of \$82.0 million to reduce the liability and adopted an annual funding schedule of 9.25% through 2025.

System Improvements

Up until February 2013, the SBRS was relying on its 1993 Legacy pension software system to provide pension administrative and management services. However, the system had not been properly maintained and upgraded which restricted efficiency so thoroughly that in many cases, it was easier for Retirement Board employees to track and calculate employee pension benefits by hand, leading to a challenging record keeping system. A 2008 PERAC audit found a \$70 million discrepancy between paper files and computer files.

In 2008, the Board contracted with Vitech Systems Group to replace the Legacy system with a new pension software system to improve data accuracy and functionality. The conversion was named the Genesis Project and initially was expected to cost \$12 million for development and implementation. The project was slated to be completed in July 2011 and paid off by 2013. In the end, the City issued four rounds of bonds, totaling \$21.0 million, and launched the software, renamed V3, in February 2013. With interest, the total cost of this project is \$25.7 million, which will be fully paid in 2023.

In preparing for the V3 launch, the Officer initiated an office reorganization involving cross-functional training of existing staff and the addition of two full-time employees who had previously been working on V3 on a contract basis.

The V3 system has helped improve departmental management capacity by combining more information into one location enabling greater collaboration of internal divisions, the creation of more accurate and comprehensive management reports and individual member files that, in most cases, allow the automatic calculation of benefits. V3 is a paperless system which has facilitated access to files, and improved their accuracy and completeness, which should improve processing time and customer experience.

Despite the high cost and time to full implementation, V3 will not be at full capacity in the early years because some data for older retirees are not available and the V3 software will not accept cases with missing information. Personnel information for these employees may have been incorrectly stored in a paper or microfilm file, which could lead to issues in processing payments upon retirement. New inquiries from the old Legacy system will be required to access the required data for the V3 system. As older retirees exit the system, a larger portion of records will be complete and eventually the system will only contain complete cases.

The SBRS is heavily reliant on Vitech consultants for basic maintenance, ongoing improvements to the V3 system and writing new queries within the program as needed. This reliance on the vendor for operational purposes is, in part, due to the fact that despite the greater technological requirements of the V3 system, very little turnover of existing staff has occurred and limited comprehensive V3 training has been provided to SBRS employees. Additionally, job descriptions have not been updated to reflect responsibilities with the new system, and there is no comprehensive performance evaluation in

place to identify employees who are struggling to adapt to the skill demands of the V3 system. Complicating the employees' incentive for training is their ability to still access the former Legacy system to retrieve employee and retiree information.

The Board has begun taking steps to address these challenges. First, the Board is finalizing a Memorandum of Agreement with the City's Department of Innovation and Technology for technical maintenance of the V3 system. Second, the Board has begun the process of creating three new positions to establish a management structure for the V3 system. The three positions are a business analyst, a data analyst to continue to improve V3 and a project manager who can oversee V3 improvements as well as the contracts associated with the V3 system.

Conclusion

Boston's pension system is comparatively healthy and the City and Retirement Board have taken prudent steps to strengthen the integrity of its financial position. Sustaining this position will require the City and Board to maintain strict discipline in the aggressive appropriation schedule, maximize investment performance, and control liability increases. The system's management will need to ensure that new technology and the workforce are appropriately matched to achieve maximum efficiency of operation and service to active employees, retirees and beneficiaries. The Walsh Administration, City Council and Commonwealth will be important players in future action to improve the operation of the State-Boston Retirement System, reach full funding of its unfunded liability and better serve its members.

As the Massachusetts public pension system continues to operate as an exclusively defined benefit plan for 105 separate retirement systems, additional comprehensive state reform will be required to ensure its future financial health. Until then, the recommendations below should be implemented in Boston to lower the City's pension liability and better manage the operations of the SBRS.

Recommendations

Fully Fund Liability by 2025 – The City and the Retirement Board should stay on course to fully fund Boston's \$1.5 billion unfunded pension liability by 2025. Doing so would reduce the City's annual pension appropriation by 77% in 2026 as the amortized liability would be paid off, leaving only the normal cost to fund each year. The savings realized in 2026 and subsequent years could then be applied to more significantly address funding the current \$2.1 billion OPEB liability.

The City and the Board have agreed to steps such as reducing the system's investment return assumption and updating the system's mortality and disability rates to improve the integrity of the SBRS. Even so, the City was able to maintain the 2025 funding schedule through the transfer of the teacher pension liability to the Commonwealth, the use of one-time funds in fiscal 2011 and by increasing its annual city appropriations by 9.25% through 2025.

Complete Teacher Pension Transfer to State – The City of Boston and Commonwealth should complete the full transfer of teacher pension responsibilities to the state. In 2010, both parties reached legislative agreement to transfer to the Commonwealth responsibility for funding Boston teacher pensions. The legislation transferred 27% of the market value

of the SBRS' assets to the state PRIT fund, but retained the administrative responsibilities with the SBRS. As a result, the SBRS staff must be knowledgeable of both municipal employee and teacher pension requirements, unlike their counterparts in all other local retirement systems. The Massachusetts Teachers' Retirement System is better suited to provide administrative services to active teachers and retirees as it does for all other municipalities. Currently, the state reimburses the SBRS for 30% of its administrative expenses, not including investment consulting costs. That revenue would be eliminated by this change, but greater benefits would be achieved. Boston's financial statements would more accurately report its pension status with its focus on just city members and beneficiaries.

Moratorium on COLA Base Increases – The City should not approve any COLA base increases unless it can be achieved without having to extend the years beyond 2025 to reach full funding of the total liability. A COLA base increase of \$1,000 raises Boston's unfunded liability by approximately \$23 million. The cost to the system is too high to justify the small benefit each retiree receives and the City cannot afford more delays to reach full funding. Retirees and beneficiaries should continue to receive the annual 3% COLA on the first \$13,000 of their pension since it is built into the funding schedule unless city operational revenues are estimated to decline from the prior year or other factors set by the Walsh Administration are met. Several states have established a policy that no COLA increase will be approved until the retirement system has reached a pension funding ratio of 80%. The Walsh Administration should adopt the policy of not supporting a COLA base increase until the SBRS reaches an 80% funded ratio.

Periodically Assess the Assumed Return Rate –

The Retirement Board should periodically assess whether the current investment return assumption of 7.75% should be reduced further in light of anticipated future return trends. In fiscal 2012 and fiscal 2013, the SBRS' achieved investment returns of 13.0% and 15.3% respectively, but relied on more alternative and risky investment vehicles to achieve the higher returns. The periodic reviews should assess the delicate balance of staying ahead of the investment return trends, the degree to which investments are made in more risky vehicles, and the goal of reaching full funding by 2015.

Maximize Utilization of the V3 System –

The City and SBRS have spent \$25.7 million on the new pension software system from Vitech and the Board needs to ensure that the capabilities of the system are fully utilized and that the staff has the required mix of skills and experience to achieve that objective. Employees should receive proper training to operate the system effectively, followed by evaluations to ensure the right fit with responsibilities and interest. Employees not able to adapt to the duties of the new system should be replaced by new employees with the interest and skills required. The Board should continue its efforts to rely on existing employees or new employees to eventually assume full responsibility for managing the V3 system and reduce its reliance on consultants. The creation of three new staff positions to assume more management responsibility of the system is a good first step.

Continue to refine financial reports and budgets –

Prior to 2014 the SBRS lacked a formal line-item budget, and depended on the unlimited nature of investment returns to fund undisciplined budgets. Over the past two years, with the implementation of the V3 system and

expanded use of the City's PeopleSoft management system, the SBRS has already shown substantial progress in the quality of reports to PERAC, error discovery, and internal reporting. However, work needs to be done in creating an operating budget in which revenue estimates closely reflect and discipline spending. The experience of the improved budget format can identify further refinements to establish the budget as a useful management tool.

Move Selected Assets into PRIT –

The SBRS should consider moving additional assets into the state's PRIT Fund in areas where it has had better long-term returns due to its investment diversity, and buying power through its large fund base. This could help reduce investment manager fees which totaled \$27.5 million in 2013.

Specifically, with PRIT outperforming the SBRS in private equity investments, the Board should consider options for moving these funds to PRIT management. Over the past three years, SBRS's investment return for private equity was 7.3%, while PRIT's return was 17.2%. As of June 30, 2014, PRIT earned a one-year return of 26.8% on private equity assets, compared to SBRS's return of 10.3%. With the SBRS investing \$171.6 million in private equity, this 16.5% difference represents a return difference of \$28.3 million. The SBRS should continue to refrain from investing in more risky asset classes allowed for PRIT but not for local systems.