Department of the Auditor General

573 municipalities administer pension plans that are "distressed" and underfunded by at least $6.7 billion

Municipalities risk: pension agreements not honored, financial condition adversely impacted, debt funding threatened

Introduction

Until recently, it has been the prevailing wisdom that pension benefits are constitutionally protected promises made by the employer that must be paid under all circumstances, regardless of the financial condition of the municipality. However, the recent declaration of bankruptcy by the city of Detroit and the ongoing litigation concerning that city's future pension obligations to its current and future retirees is challenging these long-held assumptions. It is possible that retirees may be treated as creditors and receive a reduced pension benefit during a bankruptcy case.[1]

Taxpayers will bear the **burden** of the underfunded and distressed municipal pension plans.

Detroit is not alone. Throughout the country, municipalities have been facing severe financial challenges in providing necessary governmental services while trying to meet their pension benefit obligations. In Pennsylvania, for those municipalities whose pension plans have become so underfunded that the plans are rated as "distressed," the promised retirement commitments are at risk.

The burden of the underfunded and distressed municipal pension plans ultimately will be passed on to the taxpayers of each municipality with a distressed plan. Without immediate action by the governor and state legislature, current recipients of pensions could be at risk of not realizing their lifetime pension payments, and current employees may never realize any return or a smaller return from their pensions.

[1] As of February 21, 2014, Detroit's bankruptcy plan proposes to cut police and firefighters' pension payments by 10 percent and to cut all other city employees' pensions by as much as 34 percent.

The size of the problem in Pennsylvania

573 municipalities, or 47 percent of the 1,218 local governments[2] in the state that administer pension plans, have pension plans that have been classified as "distressed." The pension plans of these 573 municipalities were underfunded by $6.7 billion as of the January 1, 2011, valuation date.

This distressed classification is determined by the Public Employee Retirement Commission (PERC) based on the combined level of funding of all the pension plans offered by a municipality.

Funding status considers both the actuarial value of assets and liabilities. A pension plan is fully funded if the actuarial value of its assets is sufficient to pay the projected actuarial accrued liabilities, which represents the future pension benefits that the municipality has agreed to pay from that plan. When a pension plan's assets are not sufficient to pay its projected liabilities, the plan is underfunded.

573 Municipalities with Distressed Pension Plans:

441 @ Level 1

108 @ Level 2

24 @ Level 3

PERC's most recent analysis of the combined funded ratio of each of the 1,218 municipalities' pension plans is based on the plans' January 1, 2011, actuarial valuation reports.

The value of the assets when compared to the value of the liabilities results in a funded ratio for pension plans. The funded ratio is used when determining whether the plan(s) should be labeled as "distressed."

The Municipal Pension Plan Funding Standard and Recovery Act (Act 205), as amended in 2009[3], provides criteria for determining the level of financial distress based on the funded ratio. Act 205 established the following levels of distress:

Level	Indication	Percentage of liabilities that are funded
0	Not distressed	90% or greater
1	Minimal distress	70-89%
2	Moderate distress	50-69%
3	Severe distress	Less than 50%

The tables on the following page provide the total actuarial value of the assets and liabilities of the 573 distressed municipality plans. Because the pension plans maintained by the cities of Philadelphia and Pittsburgh comprise three-fourths of the total pension underfunding for these 573 municipalities, the information is first presented with those two plans included, and then with those two plans excluded.

[2] Each municipality may offer more than one pension plan. The 1,218 local municipalities that administer pension plans offer approximately 2,600 pension plans in total, of which 1,937 are defined-benefit plans that are audited by the Department of the Auditor General. More than half of those plans have ten or fewer members.
[3] Municipal Pension Plan Funding Standard and Recovery Act, Act of December 18, 1984 (P.L. 1005, No. 205), as amended, 53 P.S. § 895.101 et seq.

Distress levels determined by PERC based on January 1, 2011, actuarial valuation reports[4] (**Including** city of Philadelphia and city of Pittsburgh)					
Distress level	**# of munic. with distressed plans**	**Actuarial value of assets**	**Actuarial accrued liabilities**	**Unfunded actuarial accrued liability**	**Average funded percentage**
1	441	$3,455,178,834	$ 4,364,871,986	$ 909,693,152	79.2%
2	108	6,259,479,323	11,910,941,842	5,651,462,519	52.6%
3	24	110,326,212	278,865,164	168,538,952	39.6%
Total	573	$9,824,984,369	$16,554,678,992	$6,729,694,623	59.3%

Distress levels determined by PERC based on January 1, 2011, actuarial valuation reports (**Excluding** city of Philadelphia and city of Pittsburgh)					
Distress level	**# of munic. with distressed plans**	**Actuarial value of assets**	**Actuarial accrued liabilities**	**Unfunded actuarial accrued liability**	**Average funded percentage**
1	441	$3,455,178,834	$4,364,871,986	$ 909,693,152	79.2%
2	106	908,367,870	1,411,390,601	503,022,731	64.4%
3	24	110,326,212	278,865,164	168,538,952	39.6%
Total	571	$4,473,872,916	$6,055,127,751	$1,581,254,835	73.9%

Distress levels determined by PERC based on actuarial valuation reports Philadelphia city and Pittsburgh city only				
City	**Actuarial value of assets**	**Actuarial accrued liabilities**	**Unfunded actuarial accrued liability**	**Average funded percentage**
Philadelphia	$4,719,120,000	$ 9,487,479,000	$4,768,359,000	49.7%
Pittsburgh	631,991,453	1,012,072,241	380,080,788	62.4%
Total for two cities	$5,351,111,453	$10,499,551,241	$5,148,439,788	51.0%

Addendum 1 lists the 25 municipalities with the largest unfunded aggregate pension liabilities. Addendum 3 is a map pinpointing the 573 municipalities with distressed pension plans.

[4] Data for the city of Philadelphia is based on the fund's July 1, 2011, actuarial valuation report.

Causes of underfunding

Municipalities fund pension plans from three sources of revenue: employee contributions, municipal (as employer, may include state aid) contributions, and investment income. Ideally, income from all three sources should provide enough revenue to fund the liabilities of the plan. When these revenues fall short of meeting the total obligations, a plan is considered underfunded. Numerous factors can cause a municipal pension plan to be underfunded, and the most common factors are outlined below.

Use of excessive rates of return negatively impacts pension plan funding levels

Excessive projected rates of return create a false representation of the true funding status.

Each municipality relies on an actuary to determine the annual contribution amount that the municipality should pay into its defined-benefit pension plan(s) in order to keep the plan(s) funded. The actuary calculates this amount using various economic assumptions, and one of the most important economic assumptions is the investment "rate of return." The rate of return is the interest rate at which the actuary believes each plan's investment assets will earn.

If the assumed rate of return is not attained, the earnings on investments will fall short of expectations, and the plan could be underfunded. The shortfall in earnings will have to be offset by an increase in contributions by employees and/or the municipality. If not, the plan will remain underfunded.

A simple example of how the assumed rate of return can impact the funding status of a pension plan is to assume an employee is promised a one-time pension payment of $146.93 in five years. To meet this commitment, the employer contributes $100 into the pension plan the first year. If the plan assumes, and earns, an 8% rate of return over the five years, after the first year the pension balance would be $108.00. Continuing at that 8% rate each of the next four years, after five years the plan will be worth $146.93 which means the pension commitment is fully funded.

However, if the plan's investments only earned a 5% rate of return each year instead of 8%, the balance after five years would be $127.63. As a result, the plan would be $19.30 underfunded. The municipality would still have the obligation to pay the unfunded amount of $19.30, which would require the municipality to use some other source of local funds.

While this example is simple and small in amount, it illustrates the importance of using a realistic, attainable rate of return in the actuarial calculations.

Pennsylvania law[5] currently requires the actuarial rate of return assumption for municipal pension plans to be at least 5% but not more than 9%.[6] The table below shows the rate of return assumed by 1,937[7] defined-benefit municipal pension plans as of 2011. This table also shows the number of defined-benefit plans using a rate of return greater than and less than, 7%, the mid-point between the legal range of 5% to 9%. Finally, the table shows the number of plans that are funded below 70% for each assumed rate of return (distress levels 2 and 3).

Nearly one of every five municipal defined-benefit pension plans that assumed they would earn a 7.0 percent or higher rate of return are funded below 70 percent.

Assumed Rate of Return	Number of defined-benefit plans	Number of plans funded below 70%	Percentage of plans funded below 70%
8.50%	8	4	50.00%
8.25%	4	1	25.00%
8.10%	3	3	100.00%
8.00%	268	69	25.75%
7.75%	40	6	15.00%
7.50%	388	61	15.72%
7.25%	90	10	11.11%
7.00%	293	45	15.36%
Subtotal	**1,094**	**199**	**18.19%**
6.75%	18	4	22.22%
6.50%	43	5	11.63%
6.25%	3	0	0.00%
6.00%	652	49	7.52%
5.75%	10	0	0.00%
5.50%	11	1	9.09%
5.25%	5	1	20.00%
5.00%	30	3	10.00%
4.50%	65	33	50.77%
4.00%	6	1	16.67%
Subtotal	**843**	**97**	**11.51%**
Total	**1,937**	**296**	**15.28%**

[5] Section 203.3(b)(2) of Part IV of Title 16 of the Pennsylvania Code.
[6] The assumed rate of return can be above or below the regulatory rate if a municipality receives approval from PERC. Approval is based on an explanation provided by the actuary for the need for the deviation.
[7] We presented information on 1,937 pension plans because that is the number of defined-benefit municipal pension plans subject to audit by the Department of the Auditor General. Of the 3,200 municipal pension plans offered throughout the commonwealth, the Department of the Auditor General audits approximately 2,600, which are both defined-benefit and defined-contribution plans. The 600 that are not audited by the Department of the Auditor General are county and municipal authority plans.

As the table shows, generally speaking, those pension plans that assumed a higher rate of return are more likely to be underfunded. Many pension and investment professionals agree that any rate above 7% is too high for a rate of return assumption, and assuming a higher rate can create a false representation of the true funding status of the pension plan(s).

Considering recent dramatic fluctuations in the stock market, pension plan officials must continually review the rate of return assumptions used by the plans' actuaries. Such a review allows each municipality to ensure that the assumed rate of return is reasonable for the plans' investment portfolios and the municipalities' investment policies.

The stock market is not your grandfather's stock market anymore. Massive changes have transformed the markets and investment management practices. A fund manager beating the market is no longer a realistic objective, and few active fund managers outperform the market by more than one percent over the long term. In fact, fund managers underperform the market nearly twice as often as those who outperform the market.

Increased life expectancy of retirees and current employees' raises future pension costs since benefits have to be paid over a longer period of time

The applicable local government pension statutes were written as far back as the 1930s. At the time these laws were written, life expectancy was approximately 60 years of age. Therefore, when those laws allowed a person to retire at age 50, or even after just 20 years of service, it was expected that pension payments would be made for only 10 to 20 years. Current life expectancy is nearly 80 years of age. Nevertheless, persons are still eligible to retire at age 50, which means that pension payments could continue for 30 or more years—20 years longer than when the statute was originally passed.

Life expectancy has increased from age 60 in the 1930s, when some local municipal pension laws were written, to nearly age 80 in 2011.

Actuarial assumptions used to calculate a municipality's contribution amount into a pension plan should be based on current life expectancy figures. However, there are instances in which contributions have been calculated based on shorter life expectancy. Each time a retiree lives longer than the assumed life expectancy, the pension plan incurs an additional liability. Without additional payments into the plan, the plan becomes underfunded as its participants age.

For example, if a pension plan has been funded based on the employees' anticipated average life expectancy of 70 years, that plan

will incur a unfunded liability if a retiree lives until the age of 85, paying pension costs for 15 more years than anticipated. For every employee who lives past the assumed age, this liability will multiply.

Further, as life expectancy increases, the ratio of retirees to active members has been increasing. At the same time that retirees live longer, municipalities have made personnel cuts to save on costs, resulting in fewer active members paying into the pension plan(s).

Inclusion of sizeable accrued lump-sum leave and excessive overtime payments drains pension assets farther than projected

Through collective bargaining agreements, municipal employees can be permitted to include any earnings from overtime and accrued leave payments when determining final salary levels that will be used in the pension calculation. The inclusion of excess overtime in the last few years and unpaid, but accrued, leave payments in pension benefit determinations can lead to an abuse known as "spiking." Spiking means that employees do not use their allotted leave allowances, and they may also work as much overtime as possible in their last few years of employment, to gain the benefit of having their base salary artificially inflated for calculating pension benefits. This practice can actually result in employees being paid a higher monthly pension benefit than what their actual monthly regular salary was during their working years.

If these excess overtime and accrued leave payments are not taken into consideration by actuaries when calculating annual pension contribution amounts, or if the amount of overtime "spikes" higher than the actuaries' assumptions, then pension plans can quickly become underfunded.

The following example using a base annual salary of $60,000 ($30 an hour) shows the impact of spiking. If no overtime or accrued leave payments were incurred, that person's final salary for pension calculation purposes would be $60,000.

However, if that employee were to incur 20 hours of overtime each month and accrue 10 days of leave, that employee would earn an additional $9,600 that year, increasing the annual salary to $69,600. When that overtime and accrued leave is allowed to be included for purposes of calculating pension benefits, pension benefits would be based on a salary of $69,600 instead of $60,000. That additional $9,600 in income can have a significant impact on the pension plan

considering that pension benefits can be paid for 20 or 30 years or more. And when this spiking occurs for many participants in a pension plan, the impact multiplies dramatically.

To further illustrate, a 2013 study conducted by Allegheny County officials found that 30 retirees "spiked" their pension benefits by including overtime payments in their pension calculations. The impact of the inclusion of spiking overtime for these 30 persons increased the county's pension costs by nearly $1 million each year.

Underfunded pension plans place the burden on:

Taxpayers

- Increases in property tax, per capita tax, earned income tax, permit fees, license fees
- Imposition of a dedicated pension tax on earned income

Legal provisions allow elimination of employee contributions which shifts burden of pension plan funding to municipalities and taxpayers

Various state and local laws[8] govern the state's municipal pension plans. Of significant note is a provision in Act 600 of 1956, which governs many municipal police pension plans. This act allows the employee contributions to be reduced or eliminated merely through the passage of an annual municipal ordinance or resolution.

When employee contributions are reduced or eliminated altogether, the municipality must provide additional funding streams into the pension plan to maintain an adequate funding level to meet pension obligations—or risk the likelihood that the plan will be underfunded.

Effects of underfunded pensions on taxpayers and municipalities

The ultimate burden for the underfunded municipal pension plans is currently not a direct responsibility of the commonwealth. The legal burden is borne by the municipality, and ultimately the municipal taxpayers will have to make up for the underfunded obligations. No relief is currently in sight without legislative changes.

Because pension plans rely on three sources of revenue—employee contributions, municipal (employer) contributions, and investment income—for funding, there is the assumption that if one revenue source falls short, the other two revenue sources will need to be increased in order to keep the pension plan adequately funded.

With the recently poor economy, investment earnings were not a strong revenue source for pension plans. Further, when employees are able to waive their contributions (as Act 600 of 1956 allows), the primary source of revenue into pension plans is the employer's own contributions. Ultimately, the employer's contribution is the one

[8] For a list of various state statutes that govern Pennsylvania's local municipal pension plans, see Addendum 2.

guaranteed payment into the plan, and that payment will increase over time if the plan remains underfunded.

When municipalities do not have enough revenues in their General Funds to cover pension expenses, they pass that expense on to taxpayers. Taxpayers have to bear the burden with an increase in taxes, including the imposition of a dedicated pension tax on earned income that is allowed by law if pension plans are in distress. Municipalities may also charge taxpayers higher permit and licensing fees.

GASB 67 & 68 reporting requirements effective 2014-15 will impact municipalities' balance sheets. Possibly causing:

- Bond ratings to be lowered
- Bond financing harder to obtain
- Bond financing more expensive

Moving beyond their annual pension plans' contributions, municipalities are facing new financial reporting requirements that will affect their financial statements and financial position as reported on those statements. The Governmental Accounting Standards Board (GASB) has issued Statement Nos. 67 and 68 (effective 2014-15) which will require municipalities and pension plans to include a "net pension liability" on their balance sheets showing the actual amount of the unfunded pension liability. This will be the first time that the true pension liability will be reported as part of the municipalities' financial statements for the taxpayer to see.

The presentation of the net pension liability will have a direct and immediate impact on the balance sheet of all municipalities. It might also have negative consequences when a municipality seeks loans or bond financing. Bond rating agencies, such as Standard & Poor's, review municipal financial statements. They typically consider such liabilities as debt-like in nature and take this obligation into consideration when rating bonds. The lower a municipality's bond rating, the harder, and more expensive, it will be to obtain debt financing.

Conclusion

The commonwealth's problem is a problem seen across the country; all levels of government are facing increasing pressures to ensure the long-term financial stability of their pension plans in these challenging economic times. With recent market crashes, pension plans did not achieve the anticipated assumed rates of return on their investments resulting in significant shortfalls of revenue into the pension plans. The continued use of excessive rates of return in the actuarial calculations will add to the effects of "kicking the can down the road."

As local governments reduce the size of their complement, the number of active employees making contributions into their pension plans decreases and as the number of retirees continues to increase, municipalities will be required to make ever increasing annual

The time to act is now!

The longer it takes to address underfunded pension plans, the larger the shortfall will become. And that shortfall will increase rapidly.

contributions into the plans just to meet minimum funding standards. The larger required minimum pension payments will consume a higher percentage of a municipality's budget. Ultimately, municipalities will have no choice but to pass this burden on to taxpayers.

In Pennsylvania, as of 2011, 573 municipalities have pension plan(s) that have been classified as distressed by PERC. These plans were underfunded by $6.7 billion as of the valuation date of January 1, 2011. A $6.7 billion liability can truly be every taxpayer's nightmare.

It is imperative that the commonwealth's system of local government pension plans, as well as their administration, be reformed now. Local government pension plans must be adequately funded and properly administered to ensure benefits continue to be provided and promises kept to existing municipal employees and retirees without the imposition of undue burdens on current and future taxpayers.

The longer all parties wait to address underfunded pension plans, the bigger the shortfall will become. And that shortfall will increase rapidly.

Acknowledgement: The Department of the Auditor General would like to acknowledge the contributions of the PERC in the development of this report. The Department continues to benefit from a productive and cooperative working relationship with PERC and its staff, who are an invaluable source of information regarding the administration of local government pension plans.

Recommendations

To address **underfunding** of pension plans, the following recommendations should be considered:

- Exclude "spiking" overtime and lump-sum payments for accrued leave when determining pension benefits.
- Update age and service requirements for normal retirement eligibility to account for increased life expectancy.
- Establish consistent member contribution provisions.
- Narrow the range of acceptable investment rate of return assumption options to reflect current economic conditions.
- Establish a new distress recovery program that would amend the current formula of state aid distribution to provide for additional state aid based on distress level. Additional aid should only be provided if municipalities meet certain requirements such as funding plans in accordance with Act 205 standards, agreeing not to provide any benefit increases to current employees, and establishing a revised benefit structure for new hires.
- Set limits on the amount of pension costs that may be reimbursed by the commonwealth, thus ensuring that municipalities contribute a portion of a plan's annual pension costs exclusive of state aid allocations.
- Mandate that each municipality publish its annual pension costs, by plan, for public review.
- Reduce administrative and management fee expenses.

To address **systemic issues** associated with pension plans, the following recommendations should be considered:

- Consolidation of local government pension plans into a statewide system plan segregated by different classes of employees, e.g., police officers, firefighters, and non-uniformed employees, for both current and/or future municipal employees. Such consolidation should consider the size of local government plans currently in existence and prohibit the merger of plans with unfunded liabilities with plans that are currently maintaining adequate funding levels.
- Consolidation of the administration of the local government pension plans by one entity while maintaining the existing system of individual pension plans. This overall administrator could be entities such as the Pennsylvania Municipal Retirement System (PMRS), the State Employees' Retirement System (SERS), or another large multiple-employer plan administrator.
- Develop portability options for existing municipal employees to allow changing municipal jobs without fear of forfeiting accrued pension benefits.
- Mandate a state agency, such as DCED's Bureau of Local Government Services, to have responsibility for providing guidance to municipalities for compliance with applicable state statutory provisions. This agency could also establish best practices, develop manuals, and offer training to municipalities related to pension plan administration.

Addendum 1

Municipalities with the 25 largest unfunded aggregate pension liabilities[9]

County	Municipality	Population	Net Unfunded Liability
PHILADELPHIA	Philadelphia	1,526,006	$4,768,359,000
ALLEGHENY	Pittsburgh	305,704	380,080,788
LEHIGH	Allentown	118,032	138,266,443
LACKAWANNA	Scranton	76,089	113,633,951
YORK	York	43,718	54,962,387
DELAWARE	Chester	33,972	32,060,038
LUZERNE	Hazleton	25,340	28,404,436
NORTHAMPTON	Easton	26,800	25,259,314
CAMBRIA	Johnstown	20,978	24,394,578
DELAWARE	Radnor	31,531	22,122,397
DELAWARE	Haverford	48,491	21,036,362
ALLEGHENY	Penn Hills	42,329	17,356,032
LAWRENCE	New Castle	23,273	15,889,316
WASHINGTON	Washington	13,663	12,534,009
CHESTER	West Chester	18,461	12,120,182
BUCKS	Falls	34,300	11,893,862
DAUPHIN	Susquehanna	24,036	10,140,345
ALLEGHENY	West Mifflin	20,313	8,679,158
DELAWARE	Marple	23,428	7,671,833
BUCKS	Lower Southampton	18,909	6,375,194
NORTHAMPTON	Bethlehem	74,982	6,206,945
BEAVER	Beaver Falls	8,987	6,064,102
LACKAWANNA	Dunmore	14,057	5,648,050
WESTMORELAND	Jeannette	9,654	5,439,283
BEAVER	Aliquippa	9,438	4,747,477

[9] Data obtained from *Status Report on Local Government Pension Plans: A summary and analysis of 2011 Municipal Pension Plan Data submitted pursuant to Act 205 of 1984,* and *2010 County Pension Plan Data submitted pursuant to Act 293 of 1972,* published in December 2012 by the Public Employee Retirement Commission of the Commonwealth of Pennsylvania.

Addendum 2

In addition to Act 205 and Public Employee Retirement Commission regulations, various other state statutes govern Pennsylvania's local government pension plans, including:

Act 15 - Pennsylvania Municipal Retirement Law, Act of February 1, 1974 (P.L. 34, No. 15), as amended, 53 P.S. § 881.101 et seq.

Act 69 - The Second Class Township Code, Act of May 1, 1933 (P.L. 103, No. 69), as reenacted and amended 53 P.S. § 65101 et seq.

Act 317 - The Third Class City Code, Act of June 23, 1931 (P.L. 932, No. 317), as amended 53 P.S. § 35101 et seq.

Act 581 - The Borough Code, Act of February 1, 1966 (P.L. 1656, No. 581), Article XI(f), Police Pension Fund in Boroughs Having a Police Force of Less Than Three Members, as amended 53 P.S. § 46131 et seq.

Act 600 - Police Pension Fund Act, Act of May 29, 1956 (P.L. 1804, No. 600), as amended 53 P.S. § 767 et seq.

Addendum 3