The Maryland Public Policy Institute

HOW TO REDUCE MARYLAND'S PENSION LIABILITIES

Lessons From the 30-Largest U.S. Public Pension Funds

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HOW TO REDUCE MARYLAND'S PENSION LIABILITIES:

Lessons From the 30-Largest U.S. Public Pension Funds

BY CAROL PARK

OVERVIEW

On June 30, 2017, the 30-largest public pension funds in the United States, with combined assets of $2.65 trillion, reported a group median funded status of 75.32 percent. At that time, the Maryland State Retirement and Pension System (MSRPS), the 22nd-largest public pension fund in the country, reported a funded status of 69.4 percent.

To categorize and compare Maryland's pension status with similar large public pension funds and develop policy recommendations to reduce the state's pension liabilities, the Maryland Public Policy Institute conducted a study of the 30-largest public pension funds in the country by comparing the funds' discount rates, 10-year investment returns, and member contribution rates. The study identified three main problems underlying Maryland's pension crisis: undervalued pension liability, underperforming investment, and inadequate cost sharing.

Until today, Maryland legislators have largely neglected these pension problems, which merit immediate attention. Meanwhile, other states with large public pension funds that face similar problems have implemented various reforms over the years to fix their pension systems. Drawing on lessons from other large pension funds that are back on the track to being fully funded, this report recommends these pension reforms for Maryland: a lower discount rate, passive investment strategy, and DB+DC and cash balance plans.

BACKGROUND

According to Keith Brainard, research director of the National Association of State Retirement Administrators, "Public pension funds benefit from economies of scale" because "larger funds tend to have lower costs and generally are able to afford the resources, internal and external, needed to make sound investment decisions."[1]

On the other hand, a study by McKinsey & Company found that large pension funds only benefit from economies of scale when various conditions are met. An empirical analysis of the 49 U.S. pension funds

FIGURE 1	THE 30-LARGEST PENSION FUNDS SUMMARY (JUNE 30, 2017)
TOTAL ASSET	$2.65 trillion
MEDIAN FUNDED RATIO	75.32%
MEDIAN ANNUALIZED 10-YEAR RETURN	5.57%
TOTAL DISCLOSED MANAGEMENT FEE	$9.74 billion
MEDIAN DISCOUNT RATE	7.4 %
MEMBER REQUIRED CONTRIBUTION RATE	3% ~14.5% of pay

with the CEM Benchmarking data from 2010–2015 also revealed almost no correlation between fund size and gross investment returns.[2] Many examples in the United States support these findings.

The California Public Employee Retirement System (CalPERS) and the California State Teachers' Retirement System (CalSTRS) are the first- and second-largest public pension plans in the country. As of June 30, 2017, the CalPERS and CalSTRS were just 71.9 percent and 69 percent funded, respectively. Stanford University scholars predict that California's total unfunded pension liabilities will increase to over $856 billion by 2029.[3]

New Jersey's pension system, the 12th-largest in the country, is also the worst-funded.[4] As of 2017, New Jersey's Public Employee Retirement System was just 36.78 percent funded and its Teachers' Pension and Annuity Fund was 25.14 percent funded.[5] New Jersey's total unfunded liabilities of public pensions and benefits amount to at least $202 billion, or six times the size of the state's annual budget.[6]

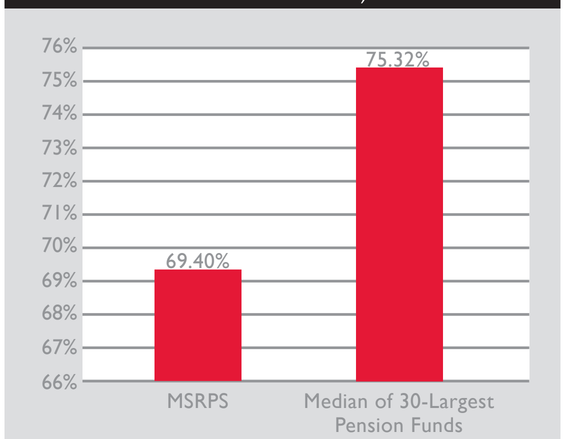
STUDY SUMMARY

In 2018, *Pensions & Investments* published a list of the 30-largest public pension funds in the United States as of June 30, 2016. Based on an updated version of the list for FY 2017, the MSRPS is the 22nd-largest public pension fund in the country.[7] As of June 30, 2017, the MSRPS reported a total pension asset of $48.99 billion and a net pension liability of $21.6 billion.[8]

To understand the nature of Maryland's pension crisis and develop policy recommendations to address the state's pension liabilities, the Maryland Public Policy Institute gathered funded statuses, discount rates, Wall Street fee ratios, and

FIGURE 2	THE MSRPS SUMMARY (JUNE 30, 2017)
TOTAL ASSET	$48.99 billion
NET PENSION LIABILITY	$21.62 billion
ACTUARIAL UNFUNDED LIABILITY	$19.74 billion
FUNDED RATIO	69.40%
ANNUALIZED 10-YEAR RETURN	4.20%
DISCLOSED MANAGEMENT FEES	$333.64 million
DISCOUNT RATE	7.5%
MEMBER REQUIRED CONTRIBUTION RATE	7% of pay

FIGURE 3 FUNDED RATIO (MARYLAND VS. 30-LARGEST FUNDS)



member contribution rates from the 30-largest pension funds.

Figure 1 summarizes the 30-plan data, and Figure 2 the MSRPS data.

FUNDED STATUS OF LARGEST U.S. FUNDS

According to data collected from comprehensive annual financial reports of each of the 30-largest public pension funds in the United States, the funds held a total asset of $2.65 trillion as of June 30, 2017. Based on plan fiduciary net positions as a percentage of total pension liability data, the 30 plans were, on median, 75.32 percent funded.

As of the same year-end, the MSRPS, holding an asset of $48.99 billion, recorded a plan fiduciary net position as a percentage of total pension liability ratio of 69.4 percent, falling approxi-

FIGURE 4 WORST-FUNDED PLANS (AMONG THE 30-LARGEST PUBLIC PENSION PLANS IN THE UNITED STATES)

PENSION PLAN	PLAN FIDUCIARY NET POSITION AS % OF TOTAL PENSION LIABILITY
1. NEW JERSEY DIVISION OF INVESTMENT	30.96%
2. TEACHERS' RETIREMENT SYSTEM OF ILLINOIS	39.30%
3. COLORADO PERA	43.20%
4. PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM	51.84%
5. SOUTH CAROLINA PEBA	53.30%
6. MINNESOTA STATE BOARD OF INVESTMENT	62.73%
7. MASSACHUSETTS PRIM	67.21%
8. MICHIGAN STATE EMPLOYEES RETIREMENT SYSTEM	69.45%
9. CALSTRS	69.00%
10. MARYLAND STATE RETIREMENT AND PENSION SYSTEM	69.40%

mately 6 percent below the peer group median (See Figure 3).

For a general idea of Maryland's plan health, 30 funds were ranked in terms of funded status (fiduciary net position as a percentage of total pension liability). As shown in Figure 4, three states with the worst-funded plans were New Jersey (Teachers' Pension and Annuity Fund, 25.41 percent; Public Employees' Retirement System, 36.78 percent)[9], Illinois (Teachers' Retirement System, 39.30 percent), and Colorado (Public Employee Retirement Association, 43.2 percent). The MSRPS was the 10th-worst funded plan among the 30-largest public pension funds in the United States.

PROBLEM 1: UNDERVALUED PENSION LIABILITY

According to the Government Accounting Standard Board-approved Statement No. 67 of June 2012, pension plans are required to disclose any significant assumptions used to measure total pension liability, such as inflation, salary change, mortality rate, and discount rate.[10] These assumptions are very important, as they are used to calculate plans' total pension liabilities and annual required contribution rates.

For large public pension funds, wrong actuarial assumptions are especially costly, as they can result in underreporting of unfunded pension liability by billions of dollars. Nonetheless, most large pension funds tend to make various wrong actuarial assumptions. One common actuarial mistake is assuming an inappropriate discount rate. Despite many controversies about the practice, almost all public pension funds use the plan's expected rate of return assumption as a proxy for the plan's discount rate.

By using the expected rate of return as the discount rate, most funds end up assuming discount rates that are too high given the plans' historical records. There are three main problems with assuming an unrealistically high discount rates:

- Plans use higher than appropriate discount rate to allow funds to look closer to fully funded than they actually are (by assuming that liabilities can be reduced unrealistically quickly).
- It also creates incentives for states to keep the contributions artificially low (since the plan appears to be closer to fully funded than they actually are).
- Finally, it creates pressure for the pension fund managers to invest in riskier assets (in order to meet the discount rate assumption).[11]

According to annual financial report data gathered by the Maryland Public Policy Institute, the median of the 30-largest public pension funds in the United States was using a discount rate of 7.4 percent as of June 30, 2017. Meanwhile, the median of the 30 funds' investment returned just 5.57 percent over the past 10 years. (This point is discussed later in the report.) The large discrepancy between the median discount rate and the median 10-year investment returns implies the following:

- Most public pension funds have a tendency to assume discount rates that are too high given their historical records.
- Total pension liability figures of the 30 funds are undervalued.

FIGURE 5 MARYLAND'S HISTORICAL 10-YEAR INVESTMENT PERFORMANCE

YEAR	10-YEAR RETURN
2017	4.2%
2016	4.9%
2015	5.8%
2014	6.5%
2013	6.6%

Source: Comprehensive Annual Financial Report 2013–2017

- Most large public pension funds are underfunded.

Among the 30 funds, the MSRPS stood out as an example of a fund that assumes one of the most unrealistic discount rates. As of 2017, the MSRPS was using a discount rate of 7.5 percent, 0.1 percent above the peer group median. Meanwhile, the MSRPS's investment portfolio returned just 4.2 percent over the 10 years ending in June 30, 2017—over 3 percent lower than the discount rate that Maryland or the peer group median use. In five out of five fiscal years since 2013, the 10-year average rate of return for the MSRPS has failed to meet the 7.5 percent discount rate (See Figure 5).

As shown in Figure 5, Maryland's 10-year investment returns have consistently fallen short of the rate of return assumptions used by the MSRPS. Out of the 30 plans, many plans that were using more conservative discount rates compared with the MSRPS actually had better performing long-term investment records. For instance, the New York State Retirement System assumes a discount rate of 7 percent, but recorded a 10-year return of 5.59 percent as of June 30, 2017.

Given Maryland's unrealistic discount rate, it is safe to assume that Maryland's pension liability of approximately $20 billion is undervalued and that the state government is not making enough in contributions every year to bring the system back to full health. In addition, the MSRPS faces pressure to invest in risky assets in order to meet the discount rate assumption. (This point is discussed later in the report.)

For comparison, it is helpful to look at discount rates used by investment management firms. Based on the types of investments that public pension funds hold, Wilshire Associates estimates that such funds should expect average investment returns of around 6.4 percent over the next 10 years.[12] J.P. Morgan Asset Management Company is even more conservative and anticipates returns of around 6.0 percent[13] (See Figure 6).

Undervalued liabilities keep the public in the dark about the true state of pension problems. If a state is not making enough contributions because the pension liability is undervalued, the state will inevitably run into problems keeping its pension promises. For Maryland and the 30-largest pension funds, using an appropriate discount rate is a difference of billions of dollars, and can be achieved through government transparency and responsible stewardship.

SOLUTION 1: USE A LOWER DISCOUNT RATE

Pension funds across the country have resisted using more realistic assessments of discount rates because even small changes can change numbers dramatically. For Maryland, a 1 percent decrease in the discount rate assumption to 6.5 percent would increase the estimation of total system net pension liability by almost $10 billion to $30.65 billion (See Figure 7).

In 2018, the MSRPS board of trustees voted to incrementally reduce the system's actuarial assumed rate of return on its investments over the next two years from 7.55 percent to 7.45 percent.[14] While this was a move in the right direction, a 7.45 percent discount rate is hardly an improvement, as meeting that rate assumption would require the MSRPS to outperform Wilshire and J.P. Morgan by a whole percent.

Therefore, the MSRPS should adopt a more conservative discount rate that properly reflects its long-term return and risks. There is no doubt that using a more realistic discount rate may reveal some painful truths, but learning the truth now will be significantly less painful than later, when pension liabilities have already ballooned out of control.

In general, politicians are reluctant to use more realistic discount rate assumptions because changes increase annual pension costs in the short run. In the long run, however, annual pension costs will decrease if pension funds began using a more realistic discount rate assumption today.

Therefore, in the recommended scenario, the MSRPS should consider gradually lowering its discount rate to the rate that reflects Maryland's historical 10-year investment returns. First, the MSRPS should lower its discount rate to match rates

FIGURE 6 DISCOUNT RATE 2017 VS. 10-YEAR RETURN

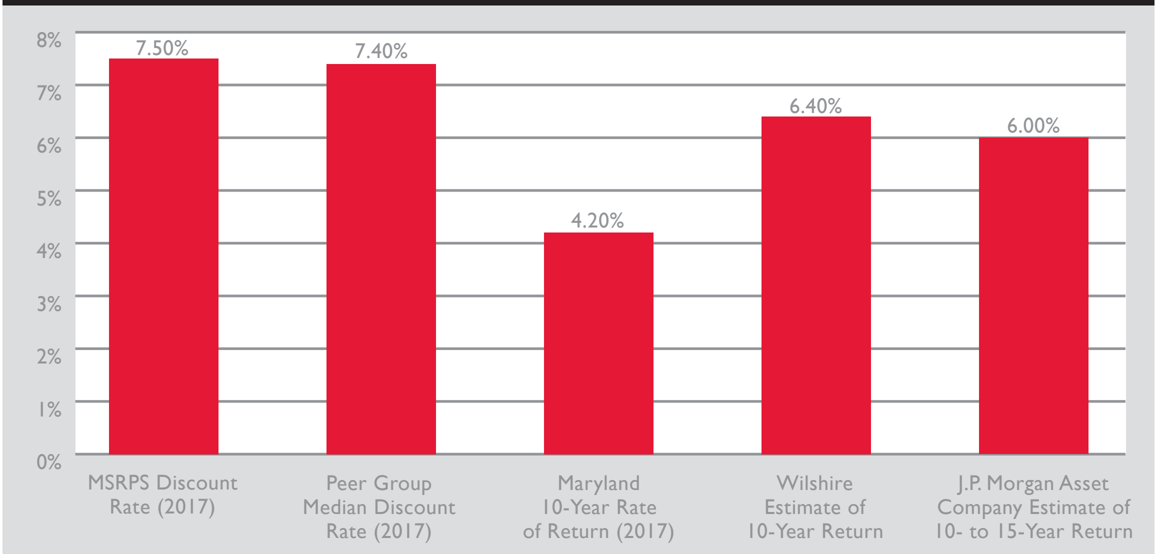
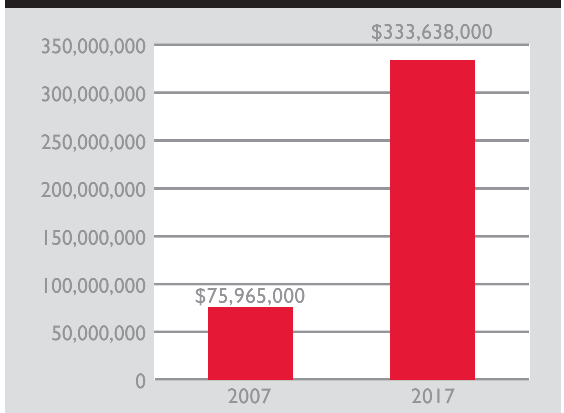


FIGURE 7 MARYLAND'S TOTAL PENSION LIABILITY CALCULATED AT VARIOUS DISCOUNT RATES

DISCOUNT RATE	TOTAL PENSION LIABILITY
6.50%	$30,645,067
7.50%	$21,623,704
8.50%	$14,138,519

Source: Comprehensive Annual Financial Report 2017

FIGURE 8 MSRPS MANAGEMENT FEES 2007 V. 2017



used by private investment management firms. Afterwards, the discount rate assumption should be gradually reduced by around 0.5 percent per year or so until the rate reflects Maryland's historical 10-year investment returns.

PROBLEM 2: UNDERPERFORMING INVESTMENT

For the 30-largest public pension funds, underperforming investment in just a single year can lead to billions of dollars of lost investment income. Similarly, investment management fees that large pension funds incur every year are equivalent to hundreds of millions dollars of lost investment income. Despite this, investment performance and management fees of large public pension funds do not face enough public scrutiny.

In the 1990s, pension funds could invest primarily in bonds and earn investment returns around 7 percent to 8 percent.[15] Today, the yield on bonds has fallen to less than 3 percent, so pension funds have shifted their investment strategies toward larger allocations in stocks and alternative assets.[16] In particular, pension funds' investment in alternative assets, including private equity, hedge funds, real estate, and commodities, more than doubled between 2005 and 2015.[17]

Like other large public pension funds, the MSRPS, especially since 2008, has increasingly turned to alternative assets. In 2007, Maryland allocated just 7.6 percent of its portfolio in alternative assets. As of 2017, that allocation has increased to 39.1 percent. Consequently, the investment management fee that Maryland pays to Wall Street managers has multiplied over the years, from just $75.97 million in 2007 to $333.64 million in 2017 (See Figure 8).

FIGURE 9 HIGHEST AND LOWEST 10-YEAR RETURN PLANS

10 PLANS WITH HIGHEST 10-YEAR RETURNS	10-YEAR RETURN (2017)	10 PLANS WITH LOWEST 10-YEAR RETURNS	10-YEAR RETURN (2017)
1. ILLINOIS MUNICIPAL RETIREMENT FUND	6.62%	1. PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM	3.80%
2. OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM	6.20%	2. MARYLAND STATE RETIREMENT AND PENSION SYSTEM	4.20%
3. MINNESOTA STATE BOARD OF INVESTMENT	6.20%	3. SOUTH CAROLINA PEBA	4.34%
4. TEACHERS RETIREMENT SYSTEM OF GEORGIA	6.10%	4. CALPERS	4.40%
5. COLORADO PERA	6.00%	5. ILLINOIS TEACHERS' RETIREMENT SYSTEM	4.80%
6. NEVADA PUBLIC EMPLOYEES' RETIREMENT SYSTEM	6.00%	6. ALABAMA RETIREMENT SYSTEM	4.88%
7. STATE OF WISCONSIN INVESTMENT BOARD	5.90%	7. VIRGINIA RETIREMENT SYSTEM	4.90%
8. OHIO PUBLIC EMPLOYEES RETIREMENT SYSTEM	5.85%	8. CALSTRS	4.95%
9. MICHIGAN STATE EMPLOYEES RETIREMENT SYSTEM	5.80%	9. MASSACHUSETTS PRIM	5.10%
10. TENNESSEE CONSOLIDATED RETIREMENT SYSTEM	5.80%	10. LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION	5.20%

To evaluate whether Maryland's costly investment strategy paid off over the years, the Maryland Public Policy Institute ranked the 30-largest pension funds in terms of 10-year annualized returns as of June 30, 2017 (See Figure 9).

Based on information gathered from comprehensive annual financial reports of the 30-largest pension funds in the United States, a median plan recorded just 5.57 percent in investment returns over the 10 years ending June 30, 2017. Out of the 30 plans, Maryland recorded the second-lowest 10-year returns. Compared to the peer group median, Maryland underperformed by approximately 1.4 percent (5.6 percent to 4.2 percent) per year for the past 10 years. This translates into lost investment income of approximately $7 billion ($50 billion x 0.014 x 10) over a decade.

In a 2018 report, the Maryland Public Policy Institute showed that pension funds that spend more on management fees tend to perform worse. To see if this finding applied to the 30-largest pension funds, the Maryland Public Policy Institute ranked those plans in terms of their 2017 Wall Street fee ratio (Wall Street fee ratio = management expense/total ending assets). Figure 10 lists the top 10 funds with the highest Wall Street fee ratios. The MSRPS ranked 7th-highest in terms of its fee ratio out of the 30 plans.

Therefore, Maryland spent more on investment management fees as a percentage of its assets than 23 other large pension funds, only to end up with the second worst 10-year investment performance. However, Maryland was not alone. As shown in Figure 10, the top 10-highest fee plans recorded a 10-year annualized return rate of 5.2 percent, compared with 5.57 percent for the median of the total 30 plans. Other than the MSRPS, funds that spent more on management fees but recorded lower returns were Pennsylvania Public Schools, Illinois Teachers, and South Carolina Public Employees.

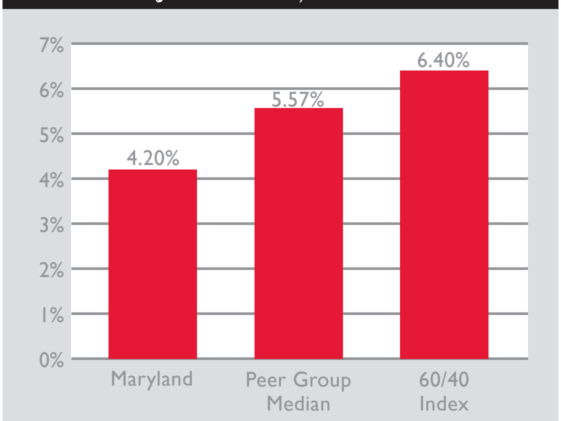
SOLUTION 2: START INDEXING FUNDS

The 30-largest public pension plan sample collectively disclosed $9.74 billion spent on Wall Street fees in fiscal year 2017. If these funds continue with the same investment strategy, this translates into an exorbitant investment management fee of almost $100 billion over the next decade for the 30-largest pension funds in the United States.

FIGURE 10 HIGHEST WALL STREET FEE PLANS

PLAN NAME	WALL STREET FEE RATIO	10-YEAR RETURN
1. MISSOURI PUBLIC SCHOOL RETIREMENT SYSTEM	1.17%	5.50%
2. SOUTH CAROLINA PEBA	1.04%	4.34%
3. NEW JERSEY PENSION SYSTEM	0.94%	5.55%
4. OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM	0.91%	6.20%
5. PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM	0.89%	3.80%
6. ILLINOIS TEACHERS' RETIREMENT SYSTEM	0.71%	4.80%
7. MARYLAND STATE RETIREMENT AND PENSION SYSTEM	0.68%	4.20%
8. OHIO PUBLIC EMPLOYEES RETIREMENT SYSTEM	0.66%	5.85%
9. VIRGINIA RETIREMENT SYSTEM	0.57%	4.90%
10. NORTH CAROLINA RETIREMENT SYSTEM	0.53%	5.65%
MEDIAN		**5.20%**

FIGURE 11 10-YEAR INVESTMENT RETURN (JUNE 30, 2017)



Despite the high fees, the peer group median and the MSRPS underperformed a composite passive index of public stocks and bonds over the past 10 years. For example, in the decade ending June 30, 2017, a 60 percent stocks/40 percent bonds index returned 6.40 percent on an annualized basis. (The blend consists of 60 percent S&P 500 Index and 40 percent BBG Barc Aggregate Bond Index). (See Figure 11.)

About 15 percent of Maryland's portfolio, principally U.S. large cap stocks, is now indexed. To reduce the fee ratio and improve performance, the MSRPS and the other 30-largest pension funds should consider indexing the vast bulk of their portfolio with a blend of public stocks and bonds, rather than actively manage their assets. For Maryland, passively investing in pension funds would cost the state about $25 million per year, or five basis points yearly on invested capital, versus the present disclosed fee $333 million.[18]

PROBLEM 3: INADEQUATE RISK-SHARING

In general, large public pension funds also carry large risks. The main risks of a defined benefit pension plan include changes in investment returns, life expectancy, and the rate of inflation. Changes in these variables also change the plan's funding level and actuarially determined contribution rates. One way that states share the cost of deviations from plan expectations with plan members is by requiring members to contribute to their plans.

Some states such as Nevada and Pennsylvania require employee contributions at rates that vary according to the plan's actuarial conditions. Other pension funds adjust employee contribution rates through a reform in the event of a financial crisis or changes in the life expectancy or the rate of inflation. Since the 2008 recession, most public pension funds across the country increased employee contribution rates.[19]

In 2011, Maryland also made a series of pension reforms and increased contribution rates of current state employees. Under the approved

FIGURE 12 MEMBER CONTRIBUTION RATES OF POORLY FUNDED PENSION FUNDS

PENSION PLAN	AVERAGE MEMBER CONTRIBUTION RATE (% OF SALARY)
1. NEW JERSEY DIVISION OF INVESTMENT	7.35%~10%
2. TEACHERS' RETIREMENT SYSTEM OF ILLINOIS	9%
3. COLORADO PERA	8%
4. PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM	7.5~12.3%
5. SOUTH CAROLINA PEBA	9.00%
6. MINNESOTA STATE BOARD OF INVESTMENT	6.5%~10.8%
7. MASSACHUSETTS PRIM	5~12%
8. MICHIGAN STATE EMPLOYEES RETIREMENT SYSTEM	4% FOR DB
9. CALSTRS	9.2%~10.25%
10. MARYLAND STATE RETIREMENT AND PENSION SYSTEM	7%

Source: National Association of State Retirement Administrators

plan, the amount that state employees pay for retirement rose from 5 percent to 7 percent of their pay.[20] As of June 30, 2017, Maryland state employees were required to contribute 7 percent, teachers 6 percent, and judges 8 percent. [21]

To see how Maryland's 7 percent member contribution rate compares with member contribution rates of the other largest pension funds in the United States, the Maryland Public Policy Institute gathered member contribution rates of the 30-largest funds from the National Association of State Retirement Administrators.[22]

With another financial crisis looming, states are at a critical point to ensure that their pension plan risks are being shared adequately with plan members.

Figure 12 shows the range of member contribution rates for the 10 worst-funded plans among the 30 largest funds, including the MSRPS. As shown in Figure 12, the most poorly funded funds among the 30 require employees to contribute more than 7 percent of pay, with the exception of the Michigan State Employee Retirement System. Most plans require employees to contribute close to 10 percent of pay or more, although rates vary depending on employee classification.

Another way that pension funds share risks with employees is through a cost-of-living-adjustment or other post-retirement benefit changes. Cost-of-living-adjustment, or COLA, is often tied to the consumer price index. Capping the COLA allows states to share the risk of inflation with employees.

In 2011, Maryland also introduced a cost-sharing COLA policy. Under the new policy, COLA is capped at 2.5 percent when the rate of return exceeds its assumed rate, but is capped at 1 percent when the return falls below the assumed rate. According to the Pew Charitable Trusts, however, Maryland's cost sharing through a COLA adjustment does not do a good job of "accounting for overall plan health," because Maryland's COLA adjustments are based on short-term investment performance rather than long-term plan health. When investment returns are high, Maryland's COLA policy does not help to reduce the plan's unfunded liability.[23]

SOLUTION 3: ADOPT CASH BALANCE AND DB+DC PLANS

Even after enjoying 11 bull market years, the country's largest public pension funds remain troubled. With another financial crisis looming, states are at a critical point to ensure that their pension plan risks are being shared adequately with plan members. This time around, Maryland should go beyond increasing member contribution rates or adopting a COLA policy, and consider adopting a risk-sharing policy that will allow the state to adequately share the plans' long-term risks with its employees.

Today, a growing number of states are considering or already have "hybrid plans" that allow the state to keep the core elements of a defined benefit plan while sharing the risk of cost deviations with members. Although hybrid plans take many forms, the two most popular are defined benefit + defined contribution plans and cash balance plans. In Maryland, state officials have considered both plans in recent years, but both proposals failed in the legislature.[24]

DB+DC Plan

A defined contribution plan is a retirement plan in which employees contribute a fixed amount or a percentage of their paychecks in an account that is intended to fund their retirement. Unlike defined benefit plans, defined contribution plans do not promise a specific amount of benefit at retirement.[25] Since 1994, Maryland's Montgomery County has offered the defined contribution plan as its primary retirement benefit for general employees.[26]

In 2017, Governor Larry Hogan proposed the State Retirement Choice Act of 2017 (HB 748/HB 540). This legislation did not pass, but if it did, it would have given the option for new state employees to choose between the existing defined pension plan or a new defined contribution plan.[27] Under the new defined contribution plan, both employees and the state would have each contributed 5 percent of salary to employees' individual accounts.[28]

Instead of making state employees choose between a DB or DC plan, Maryland should consider offering a combined defined benefit + defined contribution plan. Unlike simple DC plans, defined benefit + defined contribution plans combine the traditional defined benefit plan, usually with lower level of benefit accrual, with a defined contribution retirement saving plan. The DB component provides guaranteed benefits, and the DC component provides a non-guaranteed benefit based on the value of an individual's retirement account.

The combined DB+DC plans have multiple advantages over traditional DB plans in terms of flexibility and cost. According to the Pew Charitable Trusts:

> Hybrid plan costs are more predictable than those of DB-only plans, because the DB portion of the hybrid plan is smaller and employer contributions for the DC portion are predetermined and do not fluctuate with the market. In such instances, government employers are better able to manage budgets and are less likely to fall short on contributions, thereby reducing the potential for unfunded pension liabilities.[29]

In addition, the DB+DC plans benefit 21st-century workers who tend to switch jobs often, as the DC plan allows workers to take the entire balance with them if they switch jobs. For instance,

Instead of making state employees choose between a DB or DC plan, Maryland should consider offering a combined defined benefit + defined contribution plan.

under the DC plan proposed by the State Retirement Choice Act of 2017, state contributions vest after just three years of employment, versus the 10 years necessary under Maryland's DB plan. With the 10-year vesting requirement of the current DB plan, Maryland employees often end up leaving their jobs without earning a dollar in benefit.

Cash-Balance Plan

The cash balance plan combines the defined benefit pension plan with defined contribution elements. Like traditional defined benefit plans, the cash balance plan promises guaranteed benefits: a participating member is told that he or she will have access to a certain sum upon reaching retirement, and the plan assumes a combination of employer contributions and compound interest over time to reach that sum. Every year, benefits accrue in a hypothetical account maintained by the state.[30]

As in a traditional plan, investments are pooled together and professionally managed, but cash balance accounts are guaranteed a minimum annual investment return. Investment returns that exceed the guaranteed rate are either shared with the employees or saved for later years when the returns fall below the guaranteed minimum.

In 2017, state legislators Senator Andrew A. Serafini and House Minority Whip Kathy Szeliga introduced cash balance plans for Maryland, but the plan did not pass. Under the plan, the employee and the state would have each contributed 5 percent of salary into a retirement account and the employee would have become vested in three years. The state would have guaranteed 5 percent in interest.[31]

Maryland legislators should reexamine the cash balance plan bill that died in the legislature in 2017. According to the fiscal note, Maryland's future pension obligations would have decreased by nearly $5.9 billion if the cash balance plan been in effect in 2016. [32]

The main advantage of the cash balance plan is that it can provide more predictable cost structure for the state by reducing the number of assumptions that the plan must make to predict costs. As discussed earlier, assuming an unrealistic discount rate leads to undervalued pension liability under defined benefit plans. Under a cash balance plan, employers promise a minimum annual investment return, and promises to share additional earnings. This leads to more predictable pension costs.[33]

With cash balance plans, members do not bear the risks of underperforming investments and employees receive a guaranteed return regardless of market conditions. Finally, cash balance plans, just like DB+DC plans, are more flexible because public employees can take their vested cash balance amount with them if they leave their positions.[34]

MARYLAND LAGS BEHIND

One explanation for Maryland's enduring pension shortfall is that legislators do not view public pensions as an issue that requires immediate attention. Meanwhile, other states have begun addressing their pension problems by adopting a series of reforms that Maryland should have adopted years ago. Many of the 30-largest public pension funds have reduced discount rates, reevaluated investment strategy, and adopted cost-sharing plans.

In 2016, CalPERS voted to lower its discount rate from 7.5 percent to 7 percent over three years. "This was a very difficult decision to make, but it is an important step to ensure the long-term sustainability of the Fund," said Rob Feckner, president of the CalPERS Board of Administration.[35] Over the 10 years ending June 30, 2017, CalPERS's investment returned 4.4 percent, or 0.2 above Maryland's return of 4.2 percent.

In 2015, Nevada's Public Employees' Retirement System moved 100 percent of its pension fund to a passive structure to save management fees.[36] In Pennsylvania, Governor Tom Wolf has been pushing the state's two largest pension funds to reduce investment costs by moving into passive investment. As Governor Wolf said, "The evidence is clear that passive investment can yield similar or even better returns than Wall Street money managers and reducing these fees could save billions for the funds and taxpayers over the long term."[37]

Recently, Michigan's legislature passed a pension reform bill that allows new state employees to choose between a defined contribution plan or a hybrid plan that splits all costs 50–50 between employees and employers.[38] In 2013, Tennessee also adopted a mandatory DB+DC hybrid retirement plan for state workers hired after June 30, 2014. The new plan includes a defined benefit plan and a defined contribution plan with an automatic combined contribution of 7 percent from employees and employers.[39]

CONCLUSION

The MSRPS, the 22nd-largest public pension fund in the nation, is billions of dollars underwater. The Maryland Public Policy Institute's study of the 30-largest public pension funds reveals that Maryland has one of the worst-funded plans out of the 30. To properly understand and ultimately overcome Maryland's pension crisis, this study recommends that the MSRPS:

One explanation for Maryland's enduring pension shortfall is that legislators do not view public pensions as an issue that requires immediate attention.

- Lower its discount rate to unveil the true size of Maryland's pension liability
- Index the vast majority of its portfolio to save management costs
- Adopt DB+DC or cash balance plans with more predictable cost structure

As history has shown, pension reforms are notoriously difficult to pass in Maryland due in part to fierce opposition from public employees. Ultimately, however, all policy reforms recommended in this study are designed to help Maryland's public employees receive their promised benefits by ensuring that the plan is sustainable in the long run.

Lowering the discount rate will help ensure that the state pays enough into the system to keep its promises to the state retirees. Indexing would help ensure that the state does not waste hundreds of millions of taxpayer dollars on Wall Street managers. Finally, hybrid plans would preserve the traditional pension for the state employees, while helping the state mitigate the burden of unexpected cost increases.

Many of the largest public pension funds across the country have already adopted some of these reforms and are on the path to becoming fully funded. Meanwhile, despite calls for sound pension reform, Maryland lags behind other states when it comes to pension fixes. Therefore, it is time for Maryland to follow suit and adopt a wise combination of pension reforms recommended in this study to overcome its pension crisis.

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