Retirement 20/20 Papers

June 2018

Multiple Employer Pension Plan Risk-Sharing Model

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Abstract

Maine Public Employees Retirement System (MainePERS) administers the pension benefits for participants of approximately 300 participating local districts (PLDs) in a multiple employer cost-sharing plan. Although this plan is currently 87% funded, it faces modern challenges that could undermine its ongoing continuance. As a result, modifications were made to the plan design to more effectively manage contemporary risks facing defined benefit plans: specifically, adverse investment and liability experience. This framework is the basis of this paper.

The modified design is a risk-sharing framework created specifically to secure the sustainability of the PLD Consolidated Retirement Plan in a lower earnings environment. The design maintains an attractive benefit while mitigating the risk of employer withdrawal from the plan. Increased contribution rates created by either (1) short-term market volatility or (2) returns consistently below the assumed rate of return create disincentives for employer participation. This in turn creates challenges for paying benefits earned by members throughout their retirement.

The redesign starts with prioritizing payment of the basic defined benefit. Discretionary ancillary benefits are retained, modified or eliminated based on their cost and benefit to the member. Investment risk is no longer managed primarily by adjustable employer contribution rates, reductions in new member basic benefits levels, or arbitrary cost-of-living-adjustment freezes. Instead, investment risk is shared through variable contributions for both members and employers by applying minimum and maximum contribution rate caps. If ongoing plan experience losses result in contributions increasing beyond the predetermined caps, experience losses exceeding the caps are recovered by smoothing the excess amount into future cost-of-living adjustments instead of reducing the basic benefit for future members, reducing ancillary benefits for current members, or imposing arbitrary cost-of-living adjustments or freezes for retirees.

In addition, as MainePERS's goal is to limit market risk, the system has been a nationwide leader in lowering its investment expectations. Currently, the investment assumption is at 6.875%, with the expectation to lower that assumption further over time to 6%–6.5%. As a result, the plan's asset allocation also serves as a risk moderator and is set with contribution rate volatility as the primary risk.

This overall framework, in the process of adoption, strengthens MainePERS's long-term ability to pay the basic defined benefit calculated when a member retires while eliminating intergenerational transfer. It fits into the current governance structure, adding no additional administrative costs or burdens. Current laws have been considered and factored into the framework.

Although this framework was developed for a multiple employer cost-sharing plan, it has equal applicability to statewide pension plans in any financial market environment.

1. Background

Defined benefit retirement plans were created using a sound structure. They provided a safe and reliable retirement income for many private and public-sector workers for decades.

Most defined benefit plans were constructed for a less complex economic and demographic environment than the one in which we find ourselves today. The changing environment is highly unlikely to revert to that of the 1960s, 1970s, 1980s or even the 1990s. Most workers are living longer with corresponding increased income needs for health care. And while it is impossible to predict either interest rates or the interaction among fixed income and equities, there seems to be no indication that investment allocations will return to a relatively safe 40%–60% continuum between these asset classes and reasonably strong interest returns in the foreseeable future.

Most private sector employers have discontinued their defined benefit retirement plans, as lower risk instruments or high volatility portfolios play havoc with their balance sheets. They have increasingly turned to defined contribution retirement plans with predictable employer costs and risks. While their employees are adjusting to taking on their own retirement risk, pooled investments and a defined income stream are definite advantages of the defined benefit plan.

Defined benefit plans continue to be valued by public sector employees. These plans face the same increased investment volatility, creating similar challenges for public sector employers as have been experienced in the private sector.

The MainePERS PLD Consolidated Retirement Plan is no exception. This multiple-employer cost-sharing plan was once substantially overfunded, but now is 87% funded facing the volatility of the markets with a shrinking traditional fixed income portion in the trust fund portfolio.

MainePERS and its stakeholders grappled with this problem to find a solution to controlling the cost but keeping the essential or basic benefit intact. The result is a set of pragmatic changes to the plan that lowers the cost and risk. There is little choice but to take investment risk to keep costs reasonable in the long-term. However, that investment risk can be contained through the strategic asset allocation, and fairly shared among employers, members and retirees using rate caps and minimums, and smoothing excess losses into cost-of-living-adjustments rather than reducing the basic benefit for future members, reducing ancillary benefits for current members, or arbitrarily freezing or reducing the cost-of-living-adjustment for retirees.

This framework is applicable to most public defined benefit retirement plans. It keeps the defined benefit model intact while enabling members and employers to understand the value of their benefit. It responds to the Retirement 20/20—Call for Models for Public Pension Plans with a real-world solution that should enable members to count on their benefit throughout their retirement.

2. Understanding the Challenge

The PLD Consolidated Retirement Plan is a multiple employer cost-sharing defined benefit retirement plan. Demographic and economic trends over the last 30 years have created previously unexperienced, but likely lasting, challenges in maintaining full plan funding at reasonable costs while being able to offer members assurance that their benefits will be paid throughout their full retirement. MainePERS recognizes that these challenges require modification of the existing PLD Consolidated Retirement Plan to manage the risks these obstacles present so that employers and members have justified confidence in their retirement benefit at an acceptable cost.

2.1 Background

The use of workplace defined benefit pensions has been declining over the last decade and a half. They have been virtually eliminated in the private sector. This trend became noticeable following the 2002 market downturn when, coupled with increases in longevity, pension contribution costs began to rise. Market volatility, new accounting standards, and a lengthy low-interest rate environment continued to intertwine to further increase the unpredictability of cost and impacts on financial statements. Most private sector companies providing retirement benefits have moved to defined contributions plans for their employees to control cost and create financial statement stability.

This move toward defined contribution plans shifted the responsibility to workers to manage their own retirement savings accounts. This shift has not necessarily improved retirement readiness for many people who are no longer covered by fixed income stream retirement plans. While most employers encourage participation in their defined contribution plans, a significant percentage of participants do not fully participate or select the investment options that are best for them. Many defined contribution plan sponsors have modified their plans with successful options like opt-out, target date funds, and annuities. But these still require individual decisions, and participant success in building a secure retirement varies.

Defined benefit plans meet many of the needs that group or individual retirement defined contribution savings accounts do not. These plans provide a defined monthly payment to retirees, acting like a paycheck in retirement. This is a model most households are used to for budgeting and spending, and one that is not easily duplicated using retirement savings account withdrawals. Therefore, Social Security continues to be an attractive retirement option for workers not covered by workplace plans or who believe they have no room to save for retirement. They know how much they can expect to receive each month and what type of budget they will have in retirement.

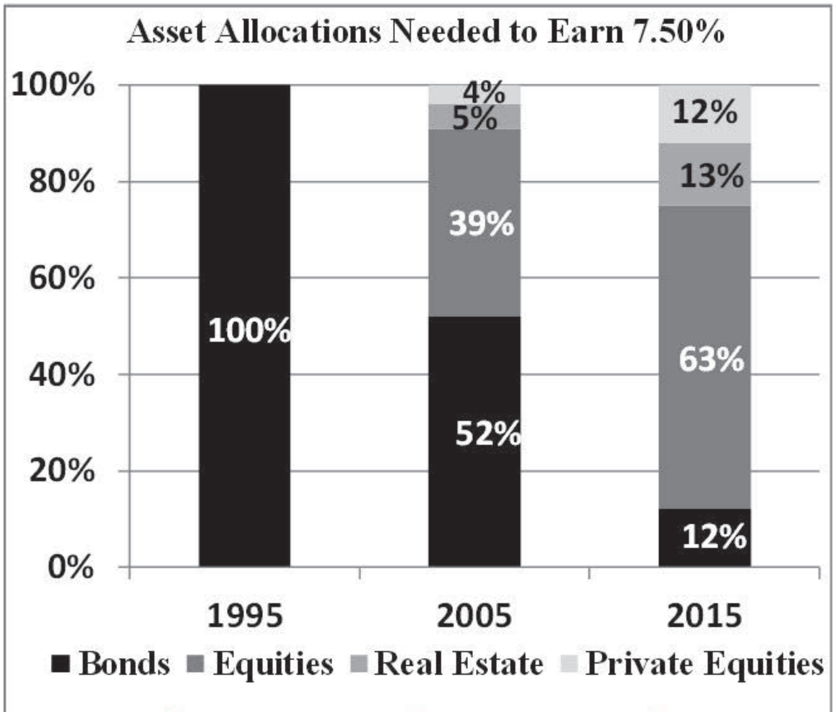
But workplace defined benefit plans face sustainability challenges. Shifting demographics and changing economic conditions have highlighted some of the evolving structural challenges in the original design of defined benefit plans.

Most defined benefit plans were created when a mix of fixed income and equities, somewhere in a 40%–60% continuum, safely met the investment returns needed to maintain reasonable contribution costs. Strong equity returns coupled with healthy fixed income returns may have masked the growing impact of longevity increases for a time. In addition, sustained periods of strong investment returns created deceptively low annual pension costs. Sponsors sometimes used these savings to increase plan benefits or spend the savings elsewhere.

Increased contribution rates inevitably resulted from financial market reversals that followed the lengthy high investment returns of the 1990s. Unanticipated sustained low interest rates created a gradual increase in investment risk to meet the return assumption needed to contain contribution rates. Earnings volatility created by higher risk portfolios gradually increased contribution costs and unfunded liabilities.

The changing economic environment and investment landscape has had a significant impact on pension plan trust fund asset allocations. While at one point in time retirement systems could earn a 7.5% return wholly invested in lower-risk bonds, a 7.5% return today requires a well-diversified portfolio, which carries nearly three times the risk of a bond-only portfolio (see Figure 1). Remaining with a total bond portfolio is equally problematic. It would have required a substantial drop in the earnings assumption accompanied by an increase in liabilities and contributions that can be assumed would have been unacceptable to both employers and members.

Figure 1.



Expected Return	7.50%	7.50%	7.50%
Standard Deviation *	6.00%	8.90%	17.20%

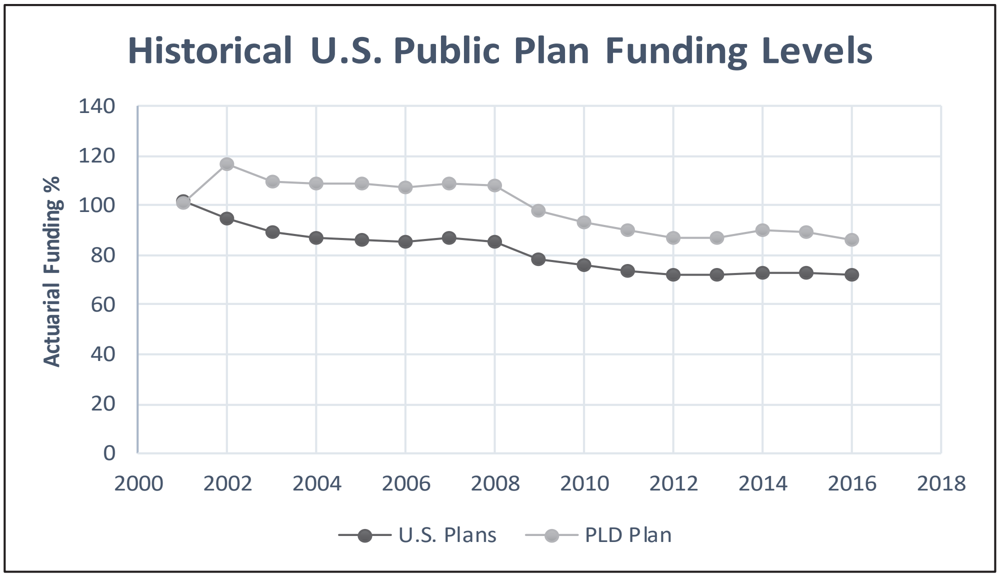
** amounts by which returns can vary*

Source: Callan LLC

2.2 The Effects of Changing Economic and Demographic Factors

Changes in the aggregate actuarial funding levels of the nation's largest public retirement plans reflect the impact of increased longevity and evolving financial market conditions. Public Plans Data support this as average funding levels for U.S. public plans dropped from 102.1% in 2001 to 71.5% in 2016, as shown in Figure 2.

Figure 2.



Data from *Public Plans Data* Website. 2016. Center for Retirement Research at Boston College, Center for State and Local Government Excellence, and National Association of State Retirement Administrators.

The PLD Retirement Plan has followed a related funding history, as shown in Figure 2. Formed in 1994, the plan quickly became overfunded in the high earnings environment of the 1990s and employer lump-sum contributions for legacy liabilities they brought in when joining the plan. While the original contribution level for employers was an aggregate rate of 8%, employer contributions were lowered to 3% to avoid taking the plan's funding level to 130% or higher. Contributions were scheduled to begin a gradual increase back to the aggregate 8% starting in 2009 when the recession took a large toll on the funded status, bringing it down to 90% by fiscal year 2014.

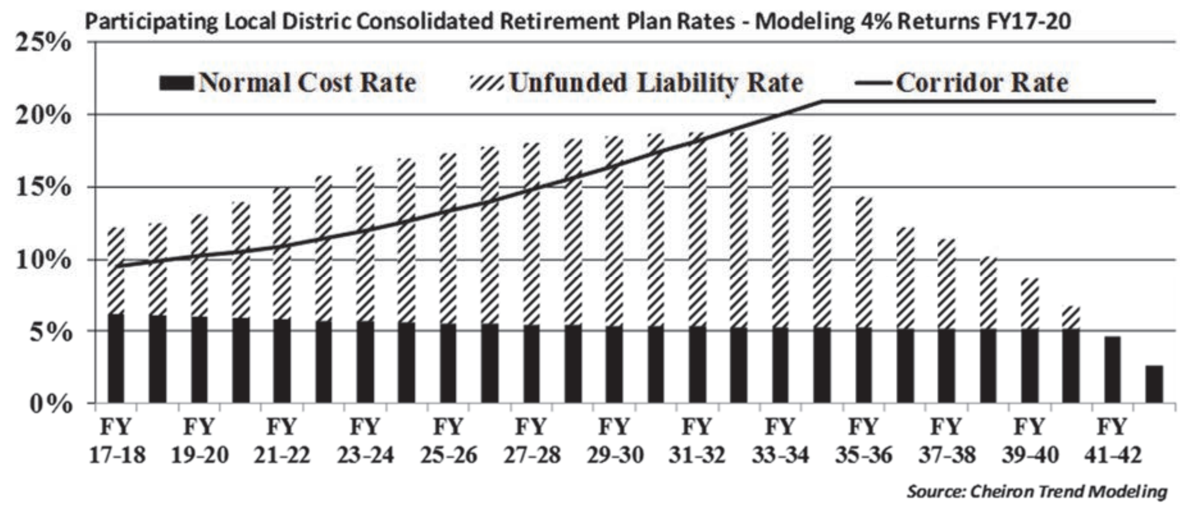
Employer rates were gradually increased by 1% per year starting in fiscal year 2010, returning to the full 8% normal cost in fiscal year 2014. The unfunded actuarial liability grew during this period. Benefit payment withdrawals and subsequent market volatility added to the declining fund balance until employer rates were further increased to 10%. The plan is now on an upward trend at 87% funded as of June 30, 2017, up from 86% a year earlier.

2.3 The Challenge

MainePERS recognizes that PLD Consolidated Retirement Plan employer rates could increase to more than double the original 8% without risk-mitigating measures. Significant rate increases create the greatest risk and the biggest vulnerability for the plan—employer withdrawal. Most plan employers cannot afford or will not tolerate pension rates of 15%–20%. Employer withdrawals could destabilize the plan and possibly cause it to fail. The challenge, therefore, is to create a realistic and reliable benefit at reasonable costs in a structure that can withstand shifting demographics and investment return volatility.

The importance of this challenge crystalized in 2016 when it appeared the low-return environment that occurred in fiscal years 2015 and 2016 could persist for some years into the future. MainePERS modeled how a 4% return in fiscal years 2017 through 2020 could affect the PLD Consolidated Retirement Plan employer contributions if all other factors remained constant, as shown in Figure 3.

Figure 3.



The results of the modeling demonstrated that a new framework was needed to manage the economic and shifting demographic risks facing pensions today and to keep the PLD Consolidated Retirement Plan sustainable into the future with reasonable costs. The new plan framework that was developed is the basis of this paper.

3. THE CURRENT GOVERNANCE AND PLAN STRUCTURE

The PLD Consolidated Retirement Plan is a versatile multiple employer cost-sharing plan. Governmental entities designated as “local districts” in Maine law are eligible to join and participate in the PLD Plan.

3.1 Governance

The existing governance structure balances stakeholder involvement. This structure helps balance moral hazard risks by creating transparency and balancing stakeholder input into the plan.

- The **state legislature** is the plan sponsor the PLD Consolidated Retirement Plan, which was implemented in 1994. It has ongoing responsibility for approving some requirements of the plan.

- The **MainePERS Board of Trustees** oversees the management and administration of the plan/trust. The board implements the intent of the legislature for many plan design components through rule-making, and sets the demographic and economic assumptions, and the annual contribution rates for employers. The board performs duties as assigned by the legislature and considers recommendations from the PLD advisory committee.

  The board of trustees oversees the system within their duties of prudence and loyalty to members, acknowledging that these are consistent with public stakeholder interests.

  Maine statute delineates the requirement and qualifications of the eight-member board of trustees. Except for the state treasurer, these positions are subject to confirmation of the legislature.

  - Two positions are held by active members of Maine’s State Employee and Teacher Retirement Program. These trustees are elected by organizations named in statute.
  - One position is held by a retired member of the State Employee and Teacher Retirement Program, selected by the governor from one of three nominees from the retired teachers’ association.
  - One position is held by a retired member in any plan MainePERS administers, selected by the governor from nominations from retiree groups.
  - One position is held by an active or retired member of the PLD Consolidated Retirement Plan appointed by an association that includes many PLD employers.
  - Two positions are selected by the governor and held by individuals who must be qualified through training or experience in the fields of investments, accounting, banking, insurance or as an actuary.
  - The Maine state treasurer.

- The **PLD Advisory Committee** was created by the legislature in statute to present recommendations for or amendments to the plan to the MainePERS Board of Trustees.

3.2 Stakeholders

Local governments designated as PLDs in statute can join the PLD Consolidated Retirement Plan and offer membership to all or part of their employees. Approximately 300 **employers** participate in the plan. Participating employers have historically been responsible for any new unfunded actuarial liabilities unless member rates established by statute or rule are adjusted.

Members are PLD active/inactive employees that have chosen or been mandated into the plan. Approximately half of all PLD members in the PLD Consolidated Retirement Plan *do not* participate in Social Security. The remainder participate in Social Security, with the PLD

Consolidated Retirement Plan as a supplemental plan. Employees offered a supplemental plan must decide at time of hire whether to participate in the PLD Consolidated Retirement Plan in addition to Social Security. This is an irrevocable decision.

Retirees and beneficiaries receive retirement benefits and if entitled, cost-of-living adjustments throughout their retirement or term of eligibility.

The **public** holds governments responsible for prudent management of all employee benefits and to minimize intergenerational transfer.

The **financial markets** play a role in funding defined benefit pension benefits, similar to the role they play in defined contribution plans. Prudently managed, investments can help create retirement security.

3.3 Member and Beneficiary Counts

Table 1. Member and Beneficiary Counts

Employers	Active Employees	Disability Retirees	Retirees	Average Annual Benefit
294	11,195	397	8,609	$15,707

Source: MainePERS Valuation

3.4 Current Plan Design

Employers can select the specific plan design they want to offer their employees from 11 defined benefit options. These options include designs in lieu of Social Security, or in addition to Social Security. See Appendix A.

The options vary to meet the needs of the member population, such as public safety employees. However, the overall structure of each option except for the defined contribution plan shares commonalities of a traditional defined benefit plan design.

3.4.1 General Plan Option Provisions

- The retirement benefit is based on a set accrual rate ranging from 1%–2.67% of average final compensation (the average of the highest three years' earnings) for each year worked. The most common option selected is 2%.
- Five-year vesting
- Age 60 normal retirement age for plan members joining before July 1, 2014
- Age 65 normal retirement age for plan members joining on after July 1, 2014
- 25-year service retirement

- Members with an age 60 normal retirement age who retire before age 60 with 25 years of service receive a benefit reduction of approximately 2.25% for each year retired before age 60.
    - Members with an age 65 normal retirement age who retire before age 65 with 25 years of service receive a benefit reduction of 6% for each year retired before age 65.
    - Members in the age 55 Plan option who retire before age 55 with 25 years of service receive a benefit reduction of either 2.25% or 6% depending on if they joined the Plan before on or after July 1, 2014.
- Disability retirement and death benefits for eligible members
- Transferable service credits between employers covered by the PLD Consolidated Retirement Plan
- Employer contributions remain with the PLD Consolidated Retirement Plan when a member terminates membership.
- Group term life insurance at the choice of the employer

3.4.2 Discretionary Plan Provisions

- Up to 3% per year Consumer Price Index for Urban Consumers based cost-of-living-adjustment after one full year in retirement

3.5 Current Risk Allocation

The current structure of the PLD Consolidated Retirement Plan has a traditional risk distribution.

- **Members** have fixed contributions. They can bear market risk if their fixed contribution rate is increased or decreased by state statute. They also bear the risk in building their own retirement security if benefits are increased or decreased.

- **Employers** bear market risk through annual increases or decreases in contributions. When the plan is underfunded, this is the difference between the total actuarially determined rate and the member fixed rate. Employers also bear the risk of increased contributions when other employers withdraw from the plan. Withdrawal risk was not contemplated when the plan was developed and overfunded, so there are currently no withdrawal impacts to the withdrawing employer.

- **Retirees** bear market economic risk if market losses are severe enough to freeze or permanently reduce the annual cost-of-living adjustment.

- **Taxpayers** bear market volatility risk if the volatility creates significant unfunded actuarial liability cost impacts in the employer budget.

3.6 Current Plan Funding

The PLD Consolidated Retirement Plan is 87% funded on an actuarial basis as of June 30, 2017. Plan employers regularly pay the full actuarial required contribution less member contributions. Member contributions are deducted from pay.

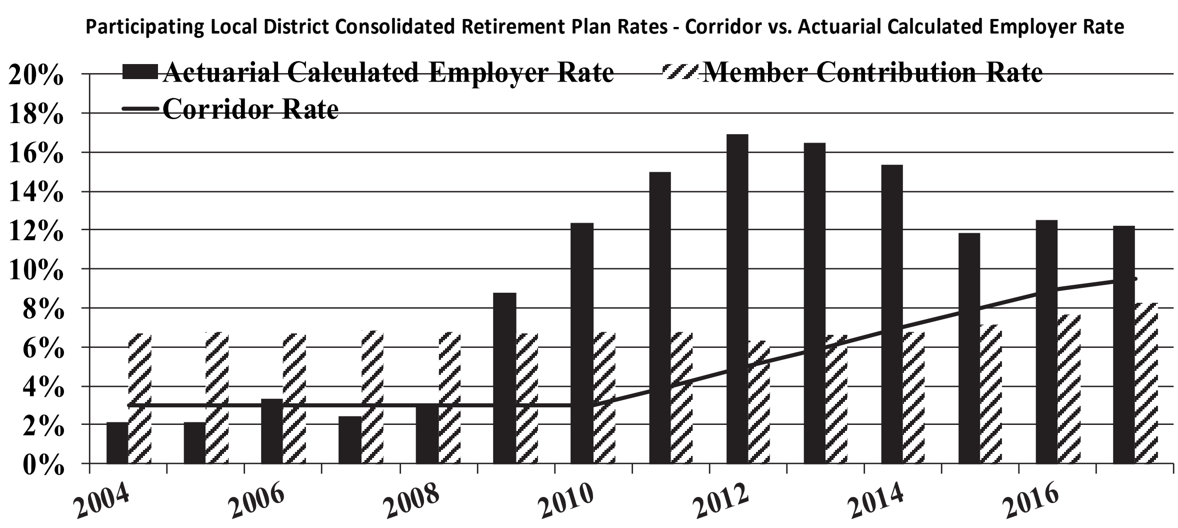
3.6.1 Contribution Rates

Subject to an annual corridor test, employers pay an actuarially determined rate reset annually. Members pay a percentage of payroll set by legislation and rule adopted by the MainePERS Board of Trustees. The original member rates set in 1994 stayed in place until 2013 when they were increased 0.5% per year for three years to help offset the recessionary losses.

The minimum employer rate is governed by an annual corridor funding test. If the plan’s funded status (the ratio of actuarial value of assets to actuarial liability) remains within a corridor of 90%–130%, the minimum required contribution rate is fixed at the minimum required rate from the prior year. If the funded ratio falls outside of the corridor, the contribution rate is adjusted to reflect 10% of the difference between the actuarially determined rate and the prior year’s minimum required contribution rate.

The 2009 market crisis created extraordinary calculated rate increases for PLD employers, as shown in Figure 4. The corridor method smoothed the losses and enabled the market recovery to bring the calculated rate down as employer corridor rates were increased to close the gap.

Figure 4.



Source: Cheiron Rate Modeling

3.6.2 Demographic and Economic Assumptions

Economic and demographic assumptions are updated either every five years as part of an experience study or as needed in between full experience studies.

Economic and demographic assumptions have always been set to protect plan funding and within standard actuarial guidelines. The MainePERS Board of Trustees has been forward thinking in adopting assumptions. For example, they began reducing the discount rate in 2006 from 8% to 7¾% and twice thereafter to the current 6.875% rate.

Table 2. Experience Study or Interim Action

	Experience Study or Interim Action					
	1994	1996	2001	2006	2011	2016
Discount	8.00%	8.00%	8.00%	7.75%	7.25%	6.875%
Wage Inflation	5.00%	5.00%	4.50%	4.50%	3.50%	2.75%
Mortality	Variant of UP-94	Variant of UP-94	Variant of UP-94	Variant of UP-94	RP 2000 Mortality Table	Rates are based on 104% and

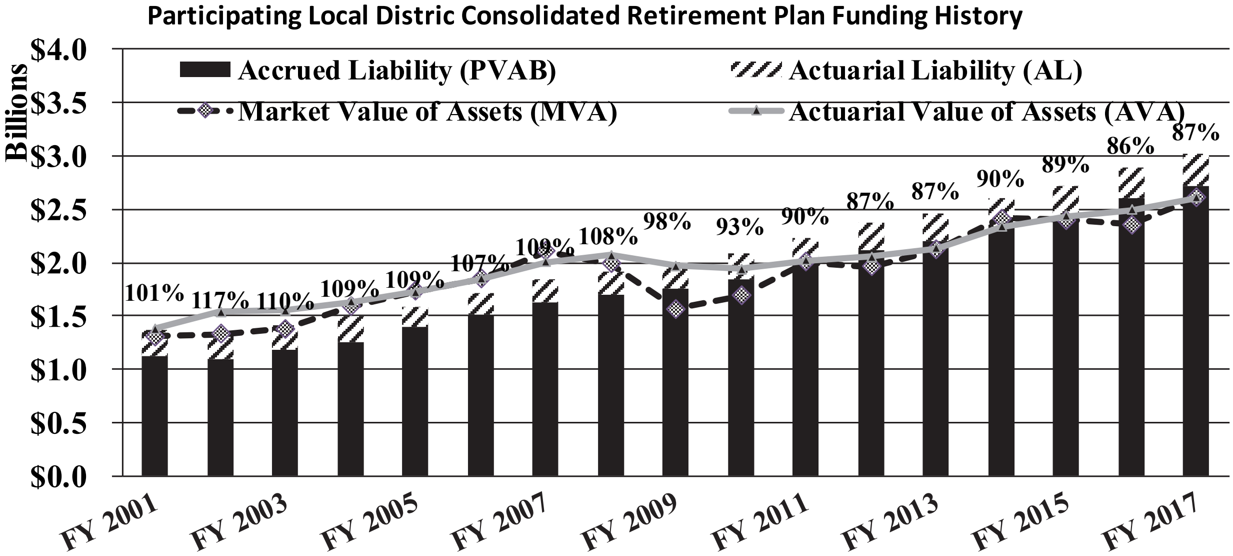
Source: MainePERS Valuations

3.6.3 Funded Status

The PLD Consolidated Retirement Plan funded status was greater than 100% from the time of its inception in 1994 through the 2008 actuarial valuation. This level of overfunding was created by exceptionally strong investment returns from the 1994 inception of the plan until 2002. Lowering employer contribution rates to 3% allowed the plan to remain 108%–110% funded until the recession knocked it down to 90% by fiscal year 2014.

To avoid employer withdrawal risk in the post-recession economy, employer rates were gradually returned to the full 8% starting in 2010 by 1% each year. Three 0.5% member rate increases were implemented in fiscal years 2015, 2016 and 2017 as a preliminary move toward member risk-sharing. These increases are intended to reverse as the plan funding improves.

Figure 5.



Source:Cheiron Trend Modeling

4. INCREASING BENEFIT SECURITY WITH A NEW RISK FRAMEWORK

MainePERS adopted the goal of increasing the assurance that PLD Consolidated Retirement Plan members would receive their defined benefit throughout their retirement.

4.1 Identifying and Addressing Risks to Increase Benefit Security

The first step in achieving the goal of increasing retirement benefit security was to assess the risks facing defined benefit plans. In early 2016, five primary risks threatening benefit security were identified:

1. Sustained market returns below MainePERS 6.875% earnings assumption or a significant market correction would create high or multiple rate increases to employers, members or both.

2. Employer rates that either threaten to or go too high increase the possibility that employers discontinue participation in the plan.

3. Member rates that go too high discourage enrollment in the plan, especially for younger workers.

4. The primary labor pool for local government jobs is either older or retired workers, some of whom are retired from the PLD Consolidated Retirement Plan and are drawing their benefit.

5. Permanent cost-of-living adjustment reductions or freezes that are used to mitigate employer and member rates increases make it difficult for retirees no longer working to keep up with inflation.

MainePERS convened PLD Advisory Committee to discuss these risks and a framework for keeping the benefit sustainable.

Conventional steps already in place to mitigate the economic and demographic risks to the plan were reviewed, but were recognized as falling short of fully strengthening benefit security:

- MainePERS has gradually reduced the expected investment return used to calculate funding needed to pay benefits over the last decade from 8% to 6.875% as long-term investment return expectations continue to decrease in a low-interest rate environment.
- MainePERS has kept up the funding for demographic changes that increase plan cost, such as longevity.
- Contribution rates have been increased to help restore plan funding lost in the recession.
- Changes which were made to plan requirements and discretionary benefits in 2014 include:
    - Normal retirement age increased to 65 for new members.
    - The early retirement reduction factor was increased from 2-1/8% to 6% for new members.
    - The cost-of-living adjustment was reduced from up to 4% of the Consumer Price Index for Urban Consumers (CPI-U) to up to 3% of the CPI-U.
- MainePERS adjusted its asset allocation to reduce expected risk while maintaining expected return.
- Based on the modeling discussed earlier in this paper, MainePERS recognized the 2014 steps alone were not adequate to sustain the plan during (1) an ongoing low interest rate environment, (2) future financial market corrections, or (3) shifting demographics such as longer life spans or retirees returning to work in a PLD Consolidated Retirement Plan covered position while collecting a benefit from the plan. Current state law prohibits members from re-entering the plan with certain exceptions, but generally allows members to return to their previous position after retiring at or after normal retirement age and still collect their plan retirement benefit.

Traditional tools available to restore funding, including increasing contribution rates, reducing the basic benefit for future members, reducing ancillary benefits current members or freezing or reducing cost-of-living adjustment, are not acceptable long-term measures to employers, members or retirees. Without new tools or methods to protect benefits and funding, the long-term sustainability of the plan is threatened.

4.2 New Benefit and Risk Management Structure

MainePERS used a pragmatic approach to increasing benefit security by keeping the mechanics of the plan essentially unchanged; that is, the plan design should remain familiar to members and employers. The primary goal was to make sure a member could rely on receiving their basic defined benefit as determined by the formula of average final compensation × the multiplier × service credit throughout their retirement.

Changes for consideration were identified by (1) analyzing the conditions that threaten benefit security, and (2) devising a framework that mitigates these threats with changes that are straightforward and as nondisruptive as possible. The framework was designed to

1. Keep the existing basic defined benefit structure in tact
2. Modify discretionary add-on benefits
3. Create a risk-sharing mechanism that shares risk fairly
4. Protect against employer withdrawals
5. Adjust actuarial and investment decisions to continue lowering risk in the plan

No reasons were identified to change the existing governance structure, which is strong and balances stakeholder interests of maintaining the strength of the PLD Consolidated Retirement Plan. The MainePERS Board of Trustees has been changing actuarial assumptions and the strategic asset allocation over the last decade in coordination with the changing economic and demographic environment.

4.2.1 Protecting the Basic Benefit

No changes were made to the basic benefit formula of average final compensation × the multiplier × service credit. This formula provides a stable and predictable basis for member retirement saving and planning.

4.2.2 Adjusting Incentives, Subsidies and Disretionary Add-ons

All plan provisions other than the basic benefit were reviewed to determine which were part of the basic benefit and which were ancillary, or may have been added for other reasons. Ancillary benefits that were determined not to be critical to the basic benefit were evaluated as (1) nice-to-have but not necessary, (2) included in the plan to control employee behavior in the workplace such as sick-time, or (3) included for other reasons not necessarily related to retirement. Costs for these add-on provisions were estimated, and the higher cost options were modified or eliminated.

4.2.2.1 Sick/Vacation Leave Incentives

Unused sick and vacation leave may increase the final benefit calculated at retirement. These increases were classified as add-ons to the benefit because they are not part of the basic benefit formula, and vary by individual behavior. The original proposal presented to the PLD Advisory Committee was to eliminate these provisions. Removing them entirely was determined to be problematic because some members have counted on their unused sick and/or vacation leave increasing their final benefit.

The final recommendation was to maintain these provisions for members with 20 or more years of service at retirement. The original proposal was modified through the committee's discussion and evaluation process after recognizing these provisions serve as a retention incentive which benefits both employers and the plan. See Table 3.

Keeping a level number of members in the plan is very important to the health of the plan, which is why retaining members is also considered important. Plan sustainability can be threatened when members leave and are replaced by employees that do not join the plan but choose other retirement options. In the end, this change created a smaller but still noticeable contribution rate reduction.

Table 3. Changes to Sick/Vacation Provisions

Current Sick/Vacation Leave Provisions	Proposed Change
• All retiring members may include up to 30 days of unused, paid sick and/or vacation leave in average final compensation calculation.	• All retiring members with 20 or more years of service at retirement may include up to 30 days of unused, paid sick and/or vacation leave in average final compensation calculation.
• All retiring members may receive service credit up to 90 days of unused, unpaid sick and/or vacation leave.	• All retiring members with 20 or more years of service at retirement may receive service credit up to 90 days of unused, unpaid sick and/or vacation leave.

4.2.2.2 Early Retirement Subsidy

The early retirement reduction factor is frequently perceived as and referred to as a "penalty" even though it is the recovery of costs incurred when a member retires before normal retirement age. Maine PLD Consolidated Retirement Plan members retiring before normal retirement age are not charged the full cost for this added benefit. The costs of this personal choice by some members are instead subsidized by the rates of employers and all other members not retiring early.

The final recommendation was to eliminate any early retirement subsidy in its entirety so that each member choosing to retire early will fund their own early retirement. Part of this recommendation is that members may delay their cost-of-living adjustment until normal retirement age eligibility, which may somewhat decrease their individual early retirement reduction factor. Members with at least 20 years of creditable service when the change goes into effect would be grandfathered under the existing, subsidized structure. See Table 4.

Table 4. Changes to Early Retirement Reduction Provisions

Current Early Retirement Reduction Provision	Proposed Change
• Benefits of all retiring members eligible to retire hired before July 1, 2014 are reduced by 2.125% for each year retiring before normal retirement age.	• Retirement benefits for all retiring members eligible to retire will be reduced by the full actuarial costs to the Plan (approximately 8% per year).
• Benefits of all retiring members eligible to retire hired after June 30, 2014 are reduced by 6% for each year retiring before normal retirement age.	• *Exception – current retirement subsidies will continue to be available to members with 20 or more years of service as of June 30, 2018.*

4.2.2.3 Retire/Rehire Subsidy

Retirees may be rehired into active employment and continue to collect their pensions. They do not accrue any additional benefits, but the plan loses employer contributions that would have been made toward the unfunded liability had a new or existing active member been hired instead.

This is a challenging issue complicated by evolving economic and demographic factors. Reasons this is a popular feature of the plan are:

- Retirees or those nearing retirement understand their benefit may not support them in retirement, and their supplemental retirement savings are not adequate to make up the difference. Earning two incomes, a paycheck, and a pension benefit helps them prepare for retirement.
- Retirees or those nearing retirement may not be ready to retire, but make the decision that two incomes, a paycheck and a benefit, is more beneficial than additional service credit and a higher benefit.
- Employers mistakenly calculate that they save money by not paying retirement costs for the plan, not understanding that the unfunded liability costs would be spread over fewer active members, causing the employer contribution rate to increase.
- Many local government employers are facing a labor pool shortage; the pool that does exist are older or retired workers (the average age of entry into the PLD Consolidated Retirement Plan is 37).
- Employers can enhance successful recruitment by offering a defined contribution option outside of the plan, so that rehired annuitants receive a paycheck, a benefit, and contributions to a defined contribution plan.

Under most circumstances, Maine statute prohibits MainePERS retirees from re-entering the same plan in which they were a member. Possibly this provision and the ability to receive a benefit and return to noncovered employment in an eligible position dates back to attempts to provide employers a tool to recruit for hard-to-fill positions.

MainePERS has been tracking retire/rehire each year to determine if the practice has an adverse effect on plan costs. While the data to date is not yet convincing, anecdotally it can be seen that employers and members are starting to consider this option in career planning. The recommendation was to continue the practice to assist employers in filling open positions, but add conditions that make it cost-neutral to the plan.

Table 5. Changes to Retire/Rehire Provisions

Current Retire/Rehire Provision	Proposed Change
• Members who retire at or after their normal retirement age may return to employment for a MainePERS Participating Local District Consolidated Retirement Plan employer and continue to receive their Plan retirement benefit for no additional cost to the employer or retired annuitant.	• Members may no longer retire at or after their normal retirement age, receive a benefit, and occupy a MainePERS covered position. • The employer can opt to pay the same total (normal and UAL) costs that are paid for other active members for retired rehires. How this is structured is up to the employer/Participating Local District Consolidated Retirement Plan annuitant, i.e., it can be paid by the employer, the rehired annuitant or both. -OR- • The employer can require the rehired Participating Local District Consolidated Retirement Plan annuitant to re-enter the plan, discontinue receiving benefits and accrue additional service credit.

4.2.2.4 Cost-of-Living Adjustment

The PLD Consolidated Retirement Plan includes a cost-of-living adjustment. This important provision assists members in adjusting to inflation throughout their retirement.

Creating a sustainable contribution rate structure required some level of cost reduction in the plan. Adjusting the cost-of-living-adjustment to more closely approximate expected inflation achieved this needed cost reduction. The PLD Advisory Committee is analyzing benefit distribution levels to decide what is the best way to distribute future cost-of-living-adjustments among retirees. See Table 6.

Table 6. Changes to Cost-of-Living Adjustment

Current Cost-of-Living Adjustment Provision	Proposed Change Choices
• Eligible retirees receive an annual cost-of-living-adjustment on their benefit up to 3% based on the Consumer Price Index for Urban Consumers.	• Eligible retirees receive an annual cost-of-living-adjustment up to 3% of the first $30,000 of their retirement benefit based on the Consumer Price Index for Urban Consumers. Annual increases on the base $30,000 are cumulative. New eligible retirees receive their adjustments on the base in effect. -OR- • Eligible retirees receive an annual cost-of-living-adjustment on their benefit up to 2.25% based on the Consumer Price Index for Urban Consumers.

4.2.3 Mitigating Contribution Rate and Economic Risks

The risk-sharing mechanism is the cornerstone change of the new PLD Consolidated Retirement Plan structure. This is because it sets the direction for other plan decisions by using contribution rate cap and minimum rates. For example, additional benefits, added investment risk, earning assumptions and other decisions must be scrutinized to determine how each decision will impact MainePERS ability to keep contribution rates safely within these boundaries and able to absorb market risk.

Market volatility can create unsustainable contribution rate volatility depending on when and in what order it occurs. As discussed earlier, trust fund allocations to equities, including MainePERS, have increased over the last 20 years as fixed income returns, specifically bonds, have declined and remained low.

MainePERS addressed this volatility by lowering its assumed rate of return from 8% in 2006 to 6.875% in 2017. In addition, risk parameters were introduced into the strategic asset allocation. While these are critical measures, further risk-management tools were needed to increase

MainePERS ability to pay retirement benefits throughout members' eligibility. The new framework does this through two mechanisms.

4.2.3.1 Contribution Rate Risk Reduction

The PLD Consolidated Retirement Plan experienced an unfortunate intersection of the 2008–2009 economic downturn and simultaneously returning plan employer contribution rates back to the original full funding costs.

As employer contribution rates gradually increased by 1% per year beginning in fiscal year 2010, few if any employers remembered the original cost of the plan was an 8% contribution rate. As a result, PLD employers became increasingly agitated over growing pension costs to which they saw no end.

At the same time, member contribution rates were increased to 8%, making it more challenging to recruit new, younger members into the plan. The combination of these factors caused MainePERS to create a new funding framework to mitigate contribution rate risk.

The new framework is based on sharing market risk more equitably than the current framework. Employers and members will share market risk, both positive and negative, through variable contribution rates adjusted annually. See Table 7.

Table 7. Changes to Current Rate Structure

Current Rate Structure	Proposed Change

• Employee rates are fixed based on the plan option in which they are a member.
• Employer rates are variable, and are the difference between the required normal and unfunded actuarial liability rates and the employee fixed rate.
	• Both employer and member rates will vary annually based on market performance.
	• After setting initial base rates, 55% of future gains/losses will be allocated to employers, and 45% allocated to members.
	• Contributions rates will be capped at 21.5% of payroll:
	  ◦ Employer cap – 12.5%
	  ◦ Employee cap – 9%

Rate caps may be adjusted for economic or demographic factors. At a minimum, rate caps will be reviewed at each experience study.

4.2.3.2 Cost-of-Living-Adjustment Protection

Under the traditional approach to defined benefit plan funding, reducing or freezing benefits such as the cost-of-living-adjustments is usually one of the first options to reduce retirement plan costs when contribution rates reach unsustainable levels due to adverse experience. Freezing or reducing this retirement benefit adjustment, permanently or temporarily, can provide significant funding requirement relief.

However, this traditional method disproportionately allocates market risk to retirees who are no longer earning income to offset the reduction. The new framework shares market risk with retirees more equitably.

Retirees will receive an adjusted cost-of-living-adjustment when market losses are excessive, with the goal of never freezing a cost-of-living-adjustment in response to a year of poor returns. This new framework, along with a goal to reach 120% funding of the plan currently under consideration, will avoid concerns that any of the three stakeholders receive preferable treatment. See Table 8.

Table 8. Changes to Cost-of-Living Risk

Current Cost-of-Living Adjustment Risk	Proposed Change
• Cost-of-living-adjustments are cumulative. • Cost-of-living-adjustments may be reduced or frozen.	• Cost-of-living-adjustments are cumulative. • When market losses are severe enough to cause employer and member rates to exceed their caps, the excess will be smoothed into future cost-of-living-adjustments. • Future market gains will also be smoothed into cost-of-living-adjustments until the losses are recovered.

This approach places retirees in a more equitable position in relation to employers and members, and eliminates subjective reductions. It also enables retirees to continue to increase their benefit each year to stay closer to inflation than when subject to arbitrary freezes.

4.2.4 Withdrawal Liability

The PLD Consolidated Retirement Plan does not currently address withdrawal liability.

Provisions under consideration to protect the plan are:

Full Withdrawal

The system's actuary will calculate the unfunded actuarial liability ("UAL") of the PLD's Consolidated Retirement Plan as of the most recent valuation date that precedes the withdrawal date. The actuary will allocate a portion of the UAL to the withdrawing PLD based on the proportion of the withdrawing PLD's total covered payroll to the total covered payroll of the entire consolidated plan as of the valuation date.

The actuary then will subtract from the withdrawing PLD's UAL amount the present value, as of the withdrawal date, of UAL payments the PLD has made since the valuation and UAL payments the PLD is expected to pay through the payment of employer contributions after withdrawal on those employees who remain active members.

The withdrawing PLD may pay this withdrawal liability amount in a lump sum or amortize it over a period of up to 10 years at the actuarial assumed rate of return used in the most recent valuation that precedes the withdrawal date.

The withdrawing PLD would continue to pay the employer rate (normal cost and UAL) on its covered payroll.

Partial Withdrawal (Entering into a New Participation Agreement That Excludes New Hires in a Class of Employees Currently Covered)

The withdrawal liability amount is calculated the same way as for a full withdrawal, except that the portion of the plan's UAL that will be allocated to the partially withdrawing PLD will be based on the proportion of the PLD's covered payroll for that class of employees to the total covered payroll of the entire consolidated plan as of the valuation date.

The withdrawal liability payment can be paid in the same manner as in the case of a total withdrawal.

The PLD would continue to pay the employer rate (normal cost and UAL) on its covered payroll.

4.2.5 Change in Unfunded Actuarial Liability Amortization Method

The corridor method that has been used to set contribution rates was effective when the PLD Consolidated Retirement Plan remained funded at more than 100%. The method slowed the path to full funding, however, in the wake of the severity of the 2009 market losses.

The PLD advisory committee is recommending a change in method of the unfunded actuarial liability from the corridor to the calculated rate method to the MainePERS Board of Trustees for adoption.

4.3 Risk Allocation After Changes

The proposed structure of the PLD Consolidated Retirement Plan has a new risk distribution, which shares risk more fairly and predictably.

- **Members** bear market risk by sharing 45% of the annual market risk with employers through variable contributions within a contribution rate range of a portion of the normal cost as a minimum up to a 9% of payroll cap. They also bear the risk in building their own retirement security if benefits are increased or decreased.

- **Employers** bear market risk by sharing 55% of the annual market risk with members through variable contributions with a contribution rate range of the portion of normal cost not paid by members as a minimum up to a 12.5% of payroll cap. Employers also bear the risk of their own withdrawal liability.

- **Retirees** bear market risk when market conditions cause contribution rates to exceed the employer and member caps by having excess market losses smoothed into their annual cost-of-living-adjustments until the losses are recovered.

- **Taxpayers** bear normal budget risk of increases in the employer cap rate.

Modeling using a series of historical trust fund gains and losses demonstrates how market risk can affect the PLD Consolidated Retirement Plan stakeholders under the new framework. Cheiron modeled how the new framework would operate in a period of significant volatility, using a 25-year period beginning in 1960.

Employer and member rates are increased to their caps for an extended period. Cost-of-living-adjustments are not affected until losses begin to be smoothed in, and again begin to return to schedule when returns increase. Plan funding declines but steadily returns with market recovery. Contribution caps were set at a level acceptable to employers and members. Actual conditions or impacts on the cost-of-living adjustment may make employers and members receptive to slightly higher rates.

MainePERS strategic asset allocation set to reduce contribution rate volatility is expected to also have a dampening impact on fund volatility, which may or may not create differing impacts than this 25-year historical period of returns.

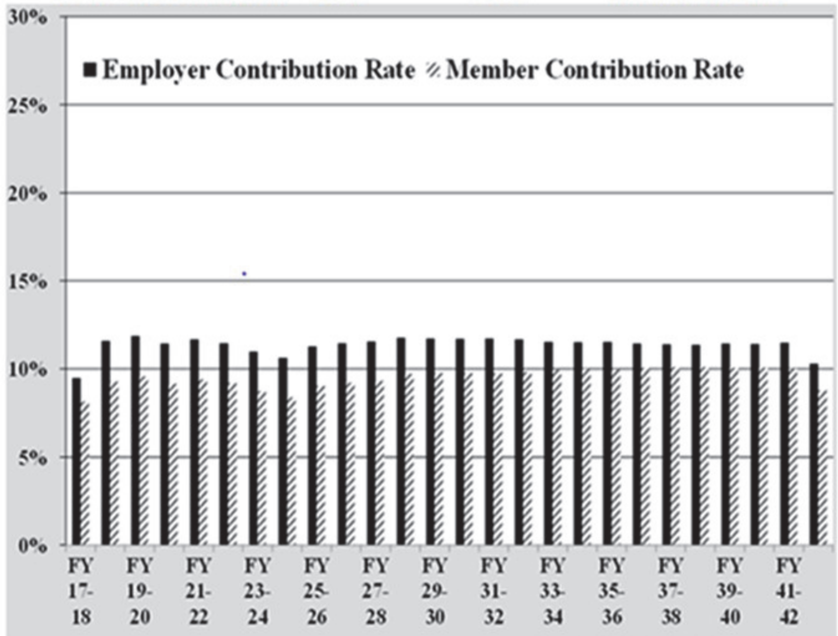
Figure 6.

MainePERS Participating Loca District Consolidated Retirement Plan Risk Allocation Modeling

	Cost Sharing ER	EE
initial benefit	55.5%	44.5%
future gains and loses	50%	50%

Contribution Caps	
maximum	21.5%
minimum	12%

FYE		COLA Adjustment	Funding Ratio
2018	3.94%		86%
2019	18.06%	0%	85%
2020	-2.06%	0%	87%
2021	14.56%	0%	87%
2022	11.82%	0%	88%
2023	7.34%	0%	91%
2024	-5.98%	0%	93%
2025	12.44%	0%	91%
2026	7.70%	0%	90%
2027	-8.34%	0%	91%
2028	9.76%	0%	87%
2029	12.98%	-23%	84%
2030	14.32%	-42%	84%
2031	-8.38%	-45%	87%
2032	-17.14%	-35%	84%
2033	28.16%	-58%	76%
2034	20.52%	-97%	74%
2035	-3.12%	-97%	76%
2036	4.52%	-97%	75%
2037	11.80%	-97%	73%
2038	20.52%	-97%	73%
2039	-0.46%	-82%	76%
2040	25.88%	-26%	76%
2041	16.86%	-37%	81%
2042	9.82%	-1%	87%



Source: Cheiron Modeling

5. Transition to the New Structure

The transition to the new framework is in process. Implementation is targeted for July 1, 2018.

The first step in the transition process is stakeholder acceptance of the changes. Transition began in 2016 when the new risk framework was presented to the PLD Advisory Committee and the MainePERS Board of Trustees. The need for the new risk framework was modeled using a continuing low-interest, low-return environment and/or adverse market events. The modeling demonstrated that employer contribution rates could increase to 20% or more if these events occurred. All committee members understood this would be unacceptable to employers and that employers might begin to withdraw from the plan. See Figure 3 in section 2.3.

The PLD Advisory Committee spent a year understanding and modifying some of the benefit provisions of the risk-sharing framework. The MainePERS Board of Trustees was informed of the committee's work throughout the year.

5.1 Transition Steps

The PLD Advisory Committee reached tentative agreement on changes to the plan. Outreach to PLD Consolidated Retirement Plan members, employers and retirees to gauge their feedback was conducted during 26 two-hour presentations with approximately 500 participants throughout the state in September, October and November.

Most meetings included members, human resources, PLD managers, and occasional retirees. A separate set of retiree meetings were scheduled, with all but one meeting canceled due to lack of attendance. A comprehensive set of slides was used to create interactive discussion in each meeting. The MainePERS executive director provided all presentations for consistency. The slides have not been published because the outreach also served as a suggestion forum for possible changes to the framework.

Comments were recorded by hand and compiled. Feedback from these meetings was provided to the PLD Advisory Committee and the MainePERS Board of Trustees. One trustee and one committee member attended two different meetings and came away with the same impression as the summary of comments.

Overall, the proposed changes were well-received in the presentation. This is because the reasoning was clearly presented, and members and employers are interested in maintaining an attractive benefit at a reasonable cost that can be relied upon in retirement. There was some limited negative feedback, generally around changing incentives, subsidies and add-ons. In general, retirees did not attend, but overall those that did seemed to understand the need for change.

The PLD Advisory Committee will finalize their recommendations for changes in February 2018, which will then be presented to the MainePERS Board of Trustees.

5.2 Implementation

Changes are scheduled for a July 1, 2018, implementation. Steps in implementation include changes in actuarial amortization of the unfunded actuarial liability, legislation, agency rule-making, and communications with the full membership.

5.2.1 Legislation

The majority of PLD Consolidated Retirement Plan provisions are codified in agency rule. Changes to legislation are primarily focused on clarifying the MainePERS Board of Trustees authority to codify change in agency rule.

MainePERS will conduct a rule-making hearing on the changes. Rule-making is a formal three-step process in which the changes are identified and announced, an open public hearing is held, and/or written comments are received by the board of trustees, and the board takes final action.

5.2.2 Communication with Full Membership

Communication with the full membership will occur in at least two major forms. The first form is communicating the changes that the board will be considering under rule-making. This will enable individuals to be heard in the formal hearing. Once the final changes are adopted, a dedicated newsletter explaining the changes will be mailed to all active and inactive members, employers, and retirees.

6. Administrative Burden

MainePERS has the existing infrastructure to accommodate these changes without any additional administrative burden. MainePERS does not anticipate employers will select the higher cost, higher risk option but will have it available for any employers that wish to do so.

7. Funding and Investment Strategies for Sustainability

MainePERS considers its trust fund asset allocation to be its primary investment risk moderator. In general, traditional investment vehicles meet the needs of the risk model. New investment instruments are not specifically needed for the changes to the benefit and risk structure of the PLD Consolidated Retirement Plan. However, new investment vehicles have been adopted in the context of a strategic asset allocation that enables the asset allocation to be the primary risk moderator.

7.1 Setting Investment Goals and Objectives

The system conducted a formal process in 2012 to identify major risks and to review its long-term investment strategy. This process involved the trustees, executive director and investment team, with joint participation by the system's general investment consultant and Cheiron.

MainePERS examined investment risk to determine its key investment goals and objectives. This process revealed that contribution rate volatility was the common factor among all investment risks. Contribution rates impact member and employer costs and budgets, and are a key factor in decisions to remain in the PLD Consolidated Retirement Plan. As a result, and as discussed earlier, contribution rates that are too high can lead to reactionary reductions in basic benefits for future members, ancillary benefits for current members, or arbitrary cost-of-living-adjustments reductions or freezes. Therefore, contribution rate volatility was elected as the key measure around which to base the plan's investment objective.

An acceptable level of contribution rate volatility was determined by evaluating potential scenarios developed by the MainePERS investment consultant and Cheiron. By eliminating scenarios as either too expensive (very low contribution rate volatility leading to high contributions) or too risky (large year to year changes in contribution rates), MainePERS and the Board of Trustees selected an acceptable target level of contribution rate volatility.

7.2 Strategic Asset Allocation

The strategic asset allocation to support the level of contribution rate volatility adopted by MainePERS was changed and adopted. See Table 9.

Table 9. Strategic Asset Allocation

		Target		Actual
MainePERS Strategic Asset Allocation		**2011**	**2017**	**12-31-17**
Growth	**Public Equity**	55.0%	30.0%	37.7%
	Private Equity	5.0%	15.0%	12.4%
Risk Diversifiers		0.0%	10.0%	5.0%
Hard Assets	**Real Estate**	10.0%	10.0%	9.3%
	Infrastructure	5.0%	10.0%	8.2%
	Natural Resources	0.0%	5.0%	3.7%
Credit	**Traditional Credit**	10.0%	7.5%	9.0%
	Alternative Credit	0.0%	5.0%	1.7%
Monetary Hedge	**US Government Securities**	15.0%	7.5%	12.4%
	Cash	0.0%	0.0%	0.6%
		100%	100%	100.0%

Source: MainePERS Policy

Notable changes from prior asset allocations are:

- **High level of "alternatives."** At 45%, the weighting to private market asset classes (Private Equity, Real Estate, Infrastructure, Natural Resources, and Alternative Credit) is high by public pension standards. The allocation is considered appropriate for the system in light of its low liquidity needs and long-term investment horizon.

- **Risk diversifiers.** These are investments typically made through private funds ("hedge funds") that generally invest in listed assets such as stocks, bonds, and commodities, via strategies that are expected to have little correlation with public markets. These investments primarily derive their return from active manager skill as opposed to market directionality.

7.2.1 Strategic Asset Allocation in Practice

Based on risk modeling and the investment consultant's forecast, the strategic asset allocation has reduced the expected severity of sharp downturns in the trust fund due to negative future market events such as the 2009 financial crisis, especially if any downward trend in public markets is limited to a year or two in duration.

8. Regulatory Compliance

There are no regulatory compliance issues with the changes under consideration. Some changes require a change in Maine law or administrative rule, which are anticipated to proceed successfully.

9. Application to Other Retirement Income Spaces

The changes in process for the PLD Consolidated Retirement Plan could likely be successful in many other statewide or multiple-employer public defined benefit retirement plans. While these plan modifications may require legislative or other local regulatory body approval, they are based on sound analysis and are in the best interest of the member, that is, protecting their retirement benefit over the long term.

MainePERS' experience with these changes is that majority of members and employers that understand these changes have been thoroughly thought through and are being made in light of the current economic and shifting demographic environments. Most understand and appreciate that MainePERS has made accommodations for employers and members without sacrificing the security of the plan or plan benefits. If the same principles are adopted within other public entities considering similar changes, the change process should be successful.

Appendix A: Existing PLD Consolidated Retirement Plan Structure Before Changes

	Employee Contribution Rate	Normal Retirement Age (NRA) and/or Years of Service Required to Be Eligible to Retire	How Service Retirement Benefit is Calculated	Includes COLA?	Notes
REGULAR PLANS					
AC	Through 6/30/2014: 6.5% 7/1/2014 - 6/30/2015: 7.0% 7/1/2015 - 6/30/2016: 7.5% 7/1/2016 and after 8.0%	First membership on/before June 30, 2014: Age 60 or 25 years of	1/50 (2.0%) of AFC for each year of service	Yes	• If you retire before age 60, benefit is reduced approximately 2 1/4% for each year you are younger than age 60
		First membership on/after July 1, 2014: Age 65 or 25 years of service**	1/50 (2.0%) of AFC for each year of service		• If you retire before age 65, benefit is reduced 6% for each year you are younger than age 65
AN	Same as Plan AC	Same as Plan AC	Same as Plan AC	No	Same as Plan AC
BC	Through 6/30/2014: 3% 7/1/2014 - 6/30/2015: 3.5% 7/1/2015 - 6/30/2016: 4%	First membership on/before June 30, 2014: Age 60 or 25 years of service**	1/100 (1.0%) of AFC for each year of service	Yes	• If you retire before age 60, benefit is reduced approximately 2 1/4% for each year you are younger than age 60 • Available only to those districts that have Social Security coverage under a Section 218 agreement
		First membership on/after July 1, 2014: Age 65 or 25 years of service**	1/100 (1.0%) of AFC for each year of service		• If you retire before age 65, benefit is reduced 6% for each year you are younger than age 65 • Available only to those districts that have Social Security coverage under a Section 218 agreement
SPECIAL PLANS					
#1C	Through 6/30/2014: 6.5% 7/1/2014 - 6/30/2015: 7.0% 7/1/2015 - 6/30/2016: 7.5%	20 years of service	1/2 (50% of AFC plus 2.0% of AFC for each year of service beyond 20 years*	Yes	• Purchased military time may be used to meet service requirement to be eligible to retire only if (1) the same plan was in effect in your PLD before Consolidation and (2) your PLD elected to allow the use of this time to meet this requirement • Purchased military time used as service beyond what is needed to be eligible to retire adds 2.0% of AFC per additional year of service to benefit
#1N	Same as Plan #1C	Same as Plan #1C	Same as Plan #1C	No	Same as Plan #1C
#2C	Through 6/30/2014: 6.5% 7/1/2014 - 6/30/2015: 7.0% 7/1/2015 - 6/30/2016: 7.5% 7/1/2016 and after 8.0%	25 years of service	1/2 (50%) of AFC plus 2.0% of AFC for each year of service beyond 25 years	Yes	• Purchased military time can be used to meet service requirement to be eligible to retire • Purchased military time used as service beyond what is needed to be eligible to retire adds 2.0% of AFC per additional year of service to benefit
#2N	Same as Plan #2C	Same as Plan #2C	Same as Plan #2C	No	Same as Plan #2C
#3C	Through 6/30/2014: 8% 7/1/2014 - 6/30/2015: 8.5% 7/1/2015 - 6/30/2016: 9.0%	25 years of service	2/3 (66.67%) of AFC plus 2.0 of AFC for each year of service beyond 25 years*	Yes	• Available only for firefighters, police officers, sheriffs, full-time deputy sheriffs and certain county corrections employees • Purchased military time can be used to meet service requirement to be eligible to retire • Purchased military time used as service beyond what is needed to be eligible to retire adds 2.0% of AFC per additional year of service to benefit
#3N	Same as Plan #3C	Same as Plan #3C	Same as Plan #3C	No	Same as Plan #3C

#4C	Through 6/30/2014: 7.5%
	7/1/2014 - 6/30/2015: 8.0%
	7/1/2015 - 6/30/2016: 8.5%
		Age 55 with 25 years of service	1/50 (2%) of AFC for each year of service	Yes	• Available only for firefighters, police officers, sheriffs, full-time deputy sheriffs and certain county corrections employees
					• Purchased military time can be used to meet service requirement to be eligible to retire
					• If you retire before age 55, benefit is reduced for each year you are younger than age 55
					  • Approximately 2 1/4% if membership under the plan began on/before 6/30/2014
					  • 6% if membership under the plan began on/after 7/1/2014

#4N	Same as Plan #4C	Same as Plan #4C	Same as Plan #4C	No	Same as Plan #4C

*The additional 2% per year is only for service earned after you become a member under the PLD Consolidated Plan, unless this provision was included in your PLD's retirement plan before it entered the PLD Consolidated Plan .**Date membership under the Plan began.

Form#: H0026
Rev: 1/18

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