

Funding Alaska's Retirement Systems
Legislative Finance Division
July 2013

The Basics

Retirement Plans—Defined Contribution Plans vs. Defined Benefit Plans

Defined benefit (DB) plans have a long history in the public sector. The “defined benefit” is a pension—which is a stream of benefits usually based on time of service and level of pay—that the employer must continue to pay until the recipient dies. The benefits are paid with a combination of employer and (typically) employee contributions and investment earnings.

Defined contribution (DC) plans are also typically funded with a combination of employer and employee contributions and investment earnings, but the employer's responsibility to the employee ends when the contributions are made.

Employer (and employee) contributions under a defined contribution plan may be similar to those under a pension plan. The primary distinction between plan types is not the contemporaneous cost of contributions, it is the level of risk assigned to the employer.

Assume that a defined contribution (DC) plan and a defined benefit (DB) plan have identical contribution rates.

- ? A DC plan offers no long-term promises to retirees; depending on investment returns, the number of years a retiree lives, and the rate of spending, a retiree can outlive his retirement savings or have a large balance left upon his death
- ? Under a DB plan, the employer promises to pay a pension as long as the employee lives. If investment returns are poor or if a retiree lives far beyond life expectancy, the employer must still pay the promised benefits.

Neither plan is superior in all cases. A DC plan may be preferred by people who expect to change jobs before vesting in a DB plan, who expect to “beat the market” with their investment choices or who have a short life expectancy. A DB plan is best for those who are concerned about having a steady retirement income that will not be affected by poor investment returns or by a longer-than-expected retirement. Again, the key difference is that the employer bears 100% of the risk of long lives and poor investment returns under a DB plan, while the employee bears all the risk under a DC plan.

Hybrid plans that attempt to split risks between employer and employee will not be discussed here. The focus is on Alaska's DB plans, specifically on unfunded liability and the high cost—soon to exceed \$1 billion annually—of paying for unanticipated pension costs.

Actuarial Concepts and Terminology

Funding Ratio

Actuaries use the ratio of assets to liabilities to measure the health of DB retirement systems. A funding ratio of 100% means a system is fully funded. The funding ratios for PERS and TRS are 62% and 54%, respectively, meaning that we have only about 60% of the assets required to pay benefits when due. In short, standard measures of the health of Alaska's retirement systems show them to be woefully under-funded. Note, however, that Alaska is one of a few states that consider health benefits in the calculation of future benefit costs.

Accrued Liability

In determining the funding ratio, actuaries use a projection of future benefit costs. This causes some people to incorrectly dismiss the funding ratio as a poor measure of system health because they claim it is implausible that all benefits would be paid immediately. It is important to understand that DB systems promise to pay benefits far into the future, and that the funding ratio compares anticipated assets in any given year to the value of benefits that plan participants are anticipated to accrue by the same year. The future value of assets is determined by contributions and investment returns (less benefit payments).

Accrued liability trends upward (with payroll) in a typical defined benefit retirement plan. That trend is a function of

- a. the life history of employees—how many there are, how long they work, how much they earn, when they retire and when they die,
- b. pension and health care formulas/agreements, and
- c. inflation, which affects future salaries (which, in turn, affects benefits) and post retirement pension adjustments.

When Alaska closed its DB plan to new employees, it ensured that accrued liability will begin to trend downward beginning in the early 2030's.

Normal Contribution Rate

The “normal” employer contribution rate is the rate that would be required to fully fund a retirement system if actuarial assumptions regarding investment returns and benefit payments (among other items) were accurate. For PERS, the normal rate is about 10% of payroll. TRS and Judicial?

Unfunded Liability

Unfunded liability is typically a consequence of assumptions that fail to materialize. For example, if the annual return on investments were 7% instead of the 8% assumed by actuaries, assets would fail to grow as expected. If assumptions regarding benefits and contributions were accurate, assets would fail to keep pace with accrued liability (i.e., projected benefit payments) and the funding ratio would decline. Unfunded liability is simply the gap between accrued liability and the level of assets required to pay those benefits when due. Unfunded liability is measured in dollars—it is now about \$8 billion

for PERS—and the existence of unfunded liability means the funding ratio is less than 100%.

Actuarial funding methods are generally designed to eliminate unfunded liability—or return to a funding ratio of 100% (they mean the same thing)—over a reasonable period of time.

Options to fill an unfunded liability gap are somewhat limited. Because 1) reducing benefits to match assets is difficult and slow, 2) employee contributions are difficult to increase and 3) earnings are mostly beyond the control of plan administrators, an unfunded liability gap is typically filled by increasing the employer contribution rate. Multiplying the annual contribution rate by an employer's payroll determines the amount of contributions each employer will pay, so higher rates bring in more contributions.

Amortization

Although it might be possible to increase contribution rates to a level sufficient to fill a funding gap in just a year or two, doing so would make contribution rates volatile. Instead, the unfunded liability that appears in any given year is amortized over a 25-year period in order to enhance rate stability.

There are two methods of amortization. Open amortization refers to a method that adds any new unfunded liability to the outstanding unfunded liability and amortizes the entire amount over 25 years. Unfunded liability can never be eliminated by increased contributions under this method; the gap is constantly shifted to the future. Alaska uses a closed amortization method. Closed amortization means that any newly created unfunded liability is amortized independently of "old" unfunded liability.¹ The remainder of this discussion of amortization assumes that Alaska continues to use a closed period.

Within each of these methods, there are two methods with names that refer to their impact on stability of contribution rates required to eliminate a given amount of unfunded liability.

Level percent of pay amortization retains a constant contribution rate over the amortization period. Relative to the level dollar method, payments to eliminate unfunded liability will be lower in the early years, but will increase as the constant contribution rate is applied to an ever-increasing payroll. This is the method that Alaska uses.

Level dollar amortization splits unfunded liability into equal payments over the amortization period, much as for a standard home mortgage. Because payroll is ever-increasing, a level dollar payment means that the contribution rates required to generate level dollar payments will decline over time. Because the level dollar method has larger payments in the early years, it is sometimes referred to as "front loading."

¹ To illustrate the difference, think of a homeowner that routinely borrows money for home improvements. Open amortization would be equivalent to refinancing all debt each year, so that the homeowner always has a new 25-year mortgage. Closed amortization is equivalent to obtaining a series of independent loans, each with a payment schedule that ends 25 years after each time money was borrowed.

Both methods eliminate the unfunded liability at the end of the amortization period and both methods are allowed under GASB rules. The ARM Board has long debated changing from level percent to level dollar amortization. Their recommendation to adopt the level dollar method in FY15 is consistent with a philosophy that the funding ratio should be increased as rapidly as possible. The change would increase FY15 state assistance to PERS and TRS by a total of \$372 million.

State Assistance

As a consequence of unfunded liability, employer contribution rates in Alaska are very high and are projected to remain high for many years. The “normal” employer contribution rate—which is the rate that would be required to fund a retirement system in the absence of unfunded liability—is about 10% of payroll. For FY14, employer contribution rates were 35.84% and 52.67% for PERS and TRS, respectively.

Fortunately for employers, Alaska law caps PERS employer contribution rates at 22% and TRS rates at 12.56%. Unfortunately for the state treasury, Alaska pays the difference between the rate cap and the full actuarial rate. For example, for every \$100,000 paid to PERS employees eligible for a pension, the employer will pay \$22,000 (22%) to PERS, and the state will pay \$13,840 (35.84%-22%).

As payroll grows—both by the addition of employees and by higher salaries to individual employees—employer and state costs will increase. If the projections are accurate, annual state assistance to retirement systems will exceed Medicaid costs and may rival the cost of K-12 education.

The consensus opinion of government budget/policy staff is that Alaska cannot afford the projected level of state assistance. Even if oil prices remain high, production declines and a new tax structure are likely to reduce state revenue in the near future. The projected level of state assistance to retirement may leave us with little flexibility to meet other budget needs.

History

See unreleased paper;

Unfunded Liability in Alaska’s Retirement Systems

Where It Came From and How to Eliminate It

Teal, Legislative Finance

August 2011—revised draft September 2011

Issues for FY15—notes on the following issues are below.

Amortization method

GASB/Moody’s

The ARM Board's Recommendation to Change the Amortization Method from Level Percent of Pay to Level Dollar

1. Changing from L% to L\$ increases contributions in the near term. Because the employer rate is capped at 22% of payroll, the entire increase will be the responsibility of the State. I don't have a model run isolating the impact, but my guess is that the change adds about 5 percentage points to the employer contribution rate, which translates to:
 - ? no impact on employers other than the state and
 - ? over \$300 million annually (near-term) in increased state assistance.
2. The deal on the 22% cap was based on actuarial assumptions in place at the time. Any changes to assumptions—even the reduction of projected earnings—should have affected the terms of that deal, but there was no interest (in the legislature) in increasing rates/costs paid by munis, particularly when the change was not simply an arbitrary decision, like this one.
3. Earnings assumptions are complicated in this regard: Lowering the projected ROR causes an immediate, significant increase in UL, which is then amortized. If ROR assumptions were not revised and we were under the ROR target every year, that would generate UL every year. In the end, we would pay the same amount regardless of the ROR used in the model. If actual ROR exceeds projected ROR, UL is diminished and contribution rates will fall accordingly. If actual ROR falls short of projections, UL increases and rates rise. The assumption on ROR should reflect reality; it isn't something to play with in order to affect how things look on paper.
4. The choice of amortization method is similar in that it changes the timing of contributions without impact on the discounted total paid. So why the big deal? If you think the state can better afford the increased cost now in exchange for lower costs later, the change is fine. If you are more interested in the short-term, or concerned that the state is subsidizing muni costs, the change in method is less attractive. The change will affect the share of costs paid by munis vs. the state.
5. The legislature is not forced to accept the ARMB's recommendation on rates, particularly with the new changes to GASB rules. There are several options regarding what the legislature/Governor may want to do on this issue, but it is probably best to discuss them privately before sharing ideas with the executive branch.

National Pension Standards

The changes adopted by Moody's and GASB differ substantially and will be discussed separately. Moody's will evaluate pension obligations under a standard set of assumptions to make it easier for them to assess and compare the creditworthiness of bond issuers. No action is required in response to Moody's action, and Moody's action is

unlikely to affect Alaska. GASB imposes accounting/reporting standards that we must comply with.

GASB Statements No. 67 and No. 68 take effect in FY14 and FY15, respectively. New standards address only what (and how) information must be reported on financial statements. New standards no longer provide guidance on calculating the ARC (the actuarially determined Annual Required Contribution). Alaska and other retirement plan sponsors have used the ARC not only to prepare financial statements, but also to budget pension plan contribution rates. GASB has severed the relationship between pension accounting and pension funding.

Traditionally, payment of the full ARC has been a critical measure of a retirement system health; the ARC offered an easy way to determine whether pension obligations were being appropriately funded.

GASB standards no longer address how employers fund the cost of benefits or calculate their ARC. That means the ARMB is no longer required to recommend a contribution rate and the legislature has some flexibility in its funding decisions.

On a personal note, I find GASB's actions bizarre. It is as if they think that reporting an unfunded liability on a financial statement will so enrage citizens that they will demand corrective action. But information on adequate corrective action will not be available on the financial statement. GASB is leaving states without guidance.

There is a big hole to fill here. At a minimum, the legislature may wish to consider legislation addressing the calculation of the ARC. At the extreme, legislation could address a complete fiscal package for Alaska's retirement systems.

Seven national associations formed a task force on filling the gap in guidance. Their recommendations include the following:

1. Amortization should balance intergenerational equity against the goal of keeping contributions a level percent of payroll over time.
2. State legislatures should base their pension funding on an ARC that is based upon reasonable assumptions.
3. Financial reports should clearly describe when and how pension plans will be fully funded.

Some proponents of the new reporting requirements appear to have an agenda beneath the surface message that "the public has a right to know the true costs of public employee pension systems, and governments must take prompt action to increase contributions to cover the full cost of retirement benefits." Sub-surface agendas include one or both of the following elements:

1. Once the true cost of retirement plans is reported, taxpayers with "pension envy" will demand immediate pension reform to reduce costs.

2. Reforms that put retirement systems at a healthier funding level reduce the probability that the federal government will have to bail out public employee retirement plans.