## How Will Limiting Cost of Living Adjustments Affect the Value of State Pensions?

## January 17, 2013



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## The following analysis demonstrates that:

- Proposals made in the Illinois General Assembly to limit the Cost of Living Adjustments would decrease the value of public pensions.
- The simplified calculations here show that the proposed changes would significantly reduce the value of benefits even for claimants with a relatively small pension and a high discount rate.

During the Illinois General Assembly's January 2013 special session a proposal to limit the so-called Cost of Living Adjustments (COLAs), a component of public employee pensions, was much discussed and debated. Under current pension rules many state workers and retirees have been promised that the pension benefits they receive will rise by 3 percent per year.

This benefit is often described as a COLA but, in fact, is unrelated to the cost of living or inflation and is more properly termed an "escalator" clause. The value of this escalator clause to the pension recipient can be quite substantial. A pension of \$50,000 in 2013 would grow by 75 percent to more than \$87,000 by 2033 under the current escalator clause. Depending on the rate of inflation during this period, the purchasing power of the pension might either increase or decrease.

Those in the General Assembly working on pension reform have introduced legislative proposals to reduce the value of the escalator clause in an attempt to control pension costs in the face of large unfunded pension liabilities. One proposal would have completely suspended the escalator for six years (until 2020) and would have capped the pension subject to the escalator clause at \$25,000. This would have meant that anyone receiving a pension of \$25,000 or more would have received no increase in their pension until 2020 and would have received a flat \$750 — that is 3 percent of \$25,000 — per year thereafter. Such legislation would certainly have reduced the value of promised pension benefits for many workers and retirees, but it is difficult to quantify the exact amount of the reduction since it depends on many factors such as the time period considered and individuals' accumulated benefits.



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Figure 1: Percentage reduction in value of pension benefit as a function of discount rate and initial pension benefit



We can compute illustrative estimates of the loss in benefits from elimination of the COLA by comparing the promised value of pension benefits under the current system to the promised value under the proposed system. The ratio of the value of benefits under the system with the new COLA to the current system is a measure of the loss to pension claimants. For example, if a claimant would get 75 percent of the promised benefits under the new system, the legislation would reduce promised pension benefits by 25 percent.

One difficulty in calculating the reduction: because benefits occur over time, we need to undertake special calculations to summarize their value in a single number. Economists and financial analysts routinely use a procedure called present value analysis to calculate the value of a stream of benefits or costs that occur over time. Present value analysis measures the quantity of money an individual would have to receive today (i.e. the "present value") to compensate him or her for the loss of a future stream of income. The present value of any stream of income depends upon the individual's rate of time preference or discount rate, i.e. how much the individual prefers getting income now compared to receiving it in the future. Economists use a variety of discount rates depending on the particular circumstances. For this analysis I use illustrative discount rates of 2, 3.5 and 5 percent. The higher the discount rate the more the individual desires to get his or her money sooner.

Figure 1 shows the percentage reduction in pension benefits from the proposed change in the escalator clause at four pension levels from \$25,000 to \$100,000 and three discount rates for a pension that starts in 2013 and is received for 20 years. The reduction varies from a low of

about 17 percent for an individual with a pension benefit of \$25,000 in 2013 and a high discount rate to about 30 percent for an individual with a pension of \$100,000 in 2013 and a low discount rate<sup>1</sup>.

These calculations show that the proposed changes would significantly reduce the value of benefits even for claimants with a relatively small pension and a high discount rate. The percentage reductions in benefits are greater for workers with a high pension than for those with lower pensions but this does not necessarily mean that high income households bear a more than proportionate share of the burden since some high income workers will receive a relatively small pension because they have few years of state service.

While these calculations make clear that the proposed changes would impose a significant burden on some state workers, the calculations alone cannot determine whether the proposed change in the escalator clause is appropriate. Dealing with Illinois' unfunded pension liabilities will require imposing significant burdens on some individuals. It is hoped that the calculations contained in this document may promote a better understanding of this particular policy proposal and be one factor legislators and others consider when deciding how to deal with Illinois' pension challenges.

<sup>&</sup>lt;sup>1</sup> These calculations implicitly assume no survivor benefits and are simplified in a number of ways. The calculations should be thought of as illustrative estimates of the order of magnitude of the proposed change rather than as precise estimates of the loss of benefits to the individual. The percentage reduction in benefits is relatively insensitive to the choice of discount rate. For example, if the discount rate were zero, reductions in benefits would vary from 20 to 33 percent depending on income. If the discount rate were 10, percent reductions in benefits would vary from 14 to 21 percent.