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Pension Plan Reform in Virginia

By Robert C. Carlson

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Foreword

Government retirement plans are unsustainable in many people's opinions. In some states and cities, retirement funds are causing a huge budgetary problem because the costs are rising and unpredictable. These retirement systems were set up decades ago when pressure on government expenditures were much less, the average age of a retired worker when he or she died was many years earlier, and when medical advances had not enhanced the quality and longevity of life for our retired community as is the case today.

Over the years, government retirement has continued as a defined benefits program while the private and non-profit sectors of our economy have moved away from those retirement programs and toward defined contribution plans. Defined contribution plans shift the burden of retirement planning to the employee and away from the employer (the government which is funded through our taxes). Some countries have moved away from defined benefit systems entirely.

The Virginia Retirement System continues as a defined benefits program even though that type of retirement program is becoming less and less available in the private and non-profit sectors.

This paper by Robert Carlson is offered as part of the discussion on changing the Virginia retirement system. It suggests that Virginia move toward a combined retirement program that includes partially a defined benefits program and added to this should be a defined contributions program. Such a balanced system would make the Commonwealth's costs lower and more predictable while providing attractive benefits to employees.

The author of this paper is quite well versed in this issue having served on the Virginia Retirement System Board of Trustees in the past and is the current Chairman of the Fairfax County Employees' Retirement System Board of Trustees. He is a nationally recognized investment expert and writes regularly about investments and retirement needs. He writes a monthly newsletter (and corresponding website) called "Retirement Watch" (see page 21).

The views expressed in the study are, of course, his own and do not necessarily reflect those of any organization with which he is affiliated.

As Virginia begins to consider changes in the retirement system of state employees, this paper will hopefully add to that discussion and offer a viable suggestion to strengthen the system for both the state worker and the taxpayers, who not only pay the salaries for these workers but also are on the hook for the promised payments in a defined benefits system.

Michael W. Thompson, Chairman and President
Thomas Jefferson Institute for Public Policy
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Background

Defined benefit (DB) plans now are part of the fiscal debate in many states and localities. Governors and legislators in 24 states are making unprecedented pushes to consider changing pension rules for government employees, according to a *Pension & Investments* March 7, 2011 article.

Employer-sponsored retirement plans for employees of state and local governments are predominantly defined benefit plans. The plans provide a guaranteed lifetime payment based on salary and years of service. The payments usually are indexed for inflation, and the plans often offer survivor and disability benefits. Employees might make contributions from salary into the plans, but their contributions are not tied directly to the benefits received. The employer is liable for contributing enough money to the plan to ensure promised benefits can be paid. The cost of a defined benefit (DB) plan to the employer can fluctuate with investment returns and other factors, and the cost can become high when those factors are materially worse than a plan's projections.

Several factors are focusing attention on DB plans for state employees:

- DB plans now are relatively rare in the private sector. Taxpayers ask why they should finance a guaranteed income for state employees when the taxpayers have no guaranteed retirement income.
- Government DB plans tend to be more generous than private sector DB plans, whether compared to the remaining private DB plans or previous plans that now are closed. In addition to the promised annual payments, government plans often index benefits for inflation and allow retirement at relatively young ages. (Yet, when comparing private and public sector plans it's important not to overlook that employees in some government plans are not covered by Social Security.)
- Several recent studies concluded government employees are better paid than private sector employees, and these studies received considerable publicity. While these studies help form public opinion, they are not relevant to the Commonwealth. A 2008 JLARC (Joint Legislative Audit and Review Commission) study and a 2010 DHRM (Department of Human Resource Management) study concluded salaries for the Commonwealth's employees lag private sector salaries.
- The 2008 JLARC study on compensation in the Commonwealth also concluded state compensation does not have the same balance between salaries and benefits as the private sector. The Commonwealth spends more on benefits and less on salaries. The study

recommended that the Commonwealth shift more of the benefit costs to employees. This transition was begun with the decision in 2010 that the Commonwealth no longer would pick up the employee contributions to the retirement plan.

- Government revenues are lower than a few years ago and are likely to grow slowly in the next few years. That means governments are looking for ways to reduce expenses.
- The cost of DB plans is rising rapidly for reasons discussed below.

Virginia has been a leader in responsible and innovative pension plan management. Yet, the retirement plan places a financial burden on the Commonwealth. After the 2010 valuation, VRS's funding ratio is about 70%. (The funding ratio in rough layman's terms is the difference between the actuarial value of the plan's assets and the actuarially determined value of the plan's liabilities, such as future benefits to retirees and beneficiaries.) This is a decline in the previous funding ratio, reflecting investment losses incurred in 2008 and 2009 and a change in the assumed investment return from 7.5% to 7.0%. The unfunded actuarial accrued liability is about $17 billion. The prospects are that higher annual contributions will be required from the Commonwealth for at least several years. Fiscal leaders in the Commonwealth are joining other states in considering alternatives to the current DB plan structure.

This paper first reviews the current situation, and then it explores alternatives available to policymakers. Though a number of DB plans operate under the umbrella of the Virginia Retirement System, this discussion focuses on the main VRS plan covering general state employees. Specific facts or data, except when otherwise stated, apply to the main VRS plan covering general state employees.

How Did We Get Here?

Cash flows into a DB plan are from employer contributions (from the Commonwealth in the case of VRS), employee contributions, and investments. Cash flows out of the plan are expenses of operating the plan and benefit payments. (Investment returns, whether positive or negative, are not direct cash flows in or out of the plan, because investments are not sold at a particular time locking in that cash position. But over time the investment returns determine the level of cash available.) Generally the only fixed item is the employee contributions, which are set as a percentage of gross wages or salary.

The employer contributions are determined by an actuary, using a number of estimates or assumptions about the variables affecting the plan, including expenses, investment returns, the ages when employees will retire, life expectancy of retirees, and inflation. The actuary initially determines the employer's "normal cost." This is the percentage of payroll the employer contributes annually when actual results match the assumptions. For VRS, the employer's normal cost for Plan 1 is 3.64% of payroll.

Plan 2 was enacted in 2010 for employees hired after July 1, 2010 and has a different benefit formula that provides lower benefits. The Plan 2 employer's normal cost is 3.11% of payroll for state employees.

Differences between actual experience and the assumptions require adjustments to the year's contribution. The Commonwealth's contributions are determined biannually to adjust for these differences; some public plans make the adjustments annually. When recent results are better than assumptions, the next year's contribution can be lower than normal cost. This happened with VRS steadily in the late 1990s and early 2000s. Exceptional investment returns greatly exceeded the assumptions and allowed lower employer contributions. When results are worse than assumptions, the annual contribution in the next future year as calculated by the actuary will be higher than normal cost. By promising to pay employees fixed benefits, indexed for inflation, the Commonwealth agrees to make up all differences between the assumptions and actual results. (The Commonwealth has a history of not making the full contribution as calculated by the actuary. In fact in 17 of the last 20 years, the Commonwealth has contributed less than recommended by VRS's actuary. This failure to make the calculated contributions decreases the funded status of the plan. It also means the missed contributions are not in the fund to be invested and earn returns when the markets recover. The failure to make the full contributions is somewhat understandable. The contribution rate is most likely to rise when investment returns are low, and that's also when tax revenues are likely to be low because of slow economic growth. So, the government is squeezed by falling revenues and rising pension contributions at the same time.

The cost of the Virginia DB plan increased considerably in recent years and is projected to rise more over the next several years. These are the main factors that led to the current fiscal situation.

- VRS employees can retire at relatively young ages. For employees who joined VRS before July 1, 2010 and are in Plan 1, the system uses a "50/30 Rule." A 50-year-old with 30 years of service qualifies for full retirement. This is similar to a "Rule of 80" used in many public DB plans. (For details see the description of VRS's retirement benefit provisions at the end of this report.) A member hired on or after July 1, 2010 is in Plan 2, for which a "Rule of 90" is used. Full retirement benefits are available after age and years of service equal 90. Also in Plan 2 the normal retirement age is the member's full Social Security benefits age. Because employees can retire at relatively young ages, in many cases workers will receive benefits for periods longer than their working careers.

- It's possible that longer life expectancies are increasing the cost of the plan. Longer lives mean benefits must be paid for a longer period of time. Changes in life expectancies are regularly incorporated by the actuary into the calculated contributions, so this effect would be gradual and automatic. In VRS's case, however, longer life expectancies might be offset by delayed retirements. The average retirement age at VRS has increased as employees wait longer to retire. This choice most likely is made to compensate for rising medical expenses and uncertainty over Social Security.

- The Commonwealth did not always make the recommended contributions to VRS. Skipped or reduced payments increase the calculated contributions for later years because the missed contributions plus the assumed investment returns they would have earned must be made up. Failure to make up for the missed contributions and their investment returns decreases the funded status of the plan.

- Some benefits were increased during periods of strong investment returns, because the true cost of the changes was masked by the impact of favorable investment returns. A major reason for higher costs is that recent investment returns were lower than assumed for the plan's actuarial calculations. Until recently, VRS assumed a 7.5 percent annual investment return. The current assumed return is 7.0 percent annually. (For the last 20 years VRS earned an average annual return of 8.0%.) This is a reasonable rate of return for a long-term investor such as VRS, but there will be extended periods when the rate of return is not achieved. As explained immediately below, short-term investment returns less than the actuarial assumption will increase the employer's annual contribution until returns bounce back.

It is important to understand how investment returns and funded status work together to make DB plan contributions volatile. Before a plan approaches fully funded status, the employer's annual contribution is fairly stable. The unfunded liability is amortized over a period of years. Because of the way actuarial calculations work, however, once a plan approaches fully funded status, the employer contributions vary considerably from year to year with investment returns. VRS employs smoothing techniques designed to dampen this volatility. Investment returns that are above or below the 7% assumed rate of return are recognized over five years instead of in one year. Despite the smoothing, the volatility still exists. In the late 1990s favorable investment returns brought VRS to fully funded status ahead of previous projections. From 2000-2002 VRS was more than 100% funded. (See page 71 of the VRS's 2010 Financial Report.) This caused the required contributions from the Commonwealth to drop significantly, directing money to other programs. When investment returns declined, even with the smoothing techniques used by the system, the state contributions rose rapidly. In addition, the Commonwealth declined to make the full calculated contributions every year, which increases subsequent contribution requirements. Going forward, the calculated contributions will continue to fluctuate annually with the system's investment returns relative to its benchmark return.

Another factor affecting volatility of the contribution rate is the steady increase in the number of retirees while the number of employees is stable or grows at a slower rate. As the ratio of retirees to active employees increases, contribution rates become more volatile. Also, as the assets grow relative to the size of the active employee payroll, the contribution rate becomes more volatile.

Another key point is that VRS's investment returns *relative* to its benchmark return (currently 7.0 percent annually) are what matters, not the absolute returns. A positive return that is less than seven percent is a loss as far as the actuary is concerned and must be made up with a higher employer contribution. VRS's assumed rate of return was 7.5% until 2010. When the assumed rate of return was lowered, this changed increased the unfunded liability of the plan.

The financial condition of Virginia's DB plan traditionally has been excellent, but it's deteriorated in recent years for the reasons noted above. The unfunded actuarial accrued liability was $17.6 billion as of June 20, 2010. The funded status declined to about 70%. Credit rating firms are changing how they view unfunded pension liabilities, and it is not clear how the unfunded liability will affect Virginia's bond rating in the future. While the goal always is to seek 100 percent funded status over the long term, there seems to be a consensus among DB plan experts that there are no solvency issues with a plan that is at least 80 percent funded as long as the employer continues to make required contributions using reasonable assumptions. Virginia's plan is below the 80% mark, and the Commonwealth has a history of not making the required contributions. These could be warning signs to credit rating firms in the near future.

The funded status, the volatility of the Commonwealth's contributions, and projected levels of contributions for several years are serious concerns that warrant an exploration of possible alternatives and reforms.

Alternatives for Reform

Virginia made several changes to its retirement plans in the last two years and considered others. Employees now are contributing to the plans. Previously, the Commonwealth paid the contributions that were designated as employee contributions. In addition, employees hired after July 1, 2010, face several changes in their retirement benefit calculations. These measures are not sufficient to increase the funded status of the system or relieve the Commonwealth of high and volatile contribution rates any time soon.

Retirement plans other than DB plans are the exception in the public sector although the private sector has moved away from DB plans in favor of defined contribution (DC) plans. However, there are a few examples of other retirement plans being offered by state governments and the federal government. "A number of states depart from that (DB) model," according to the National Conference of State Legislatures. "Nebraska did so as long ago as 1967, and Indiana's public retirement plans have long had a component of individual retirement accounts along with a defined benefit component." Only a few alternatives have been operated for extended periods and provide reliable models. The Nebraska plan referenced by the NCSL, for example, recently was changed in favor of a cash balance plan that provides a minimum rate of return, because the legislature concluded the DC plan was not providing adequate benefits. Other public sector alternatives are more recent, and there still are questions about their results for both the employers and employees.

Before reviewing some alternatives, it is important to note that policymakers should consider factors in addition to the cost of the plan and volatility of contributions. A DB plan could provide other benefits to the employer or employee that should be considered before a change is made.

Positive features of a DB plan include:

- The DB plan provides both disability and survivor benefits in addition to retirement benefits. If the Commonwealth switches to another retirement plan, it would have to find ways to provide these other benefits or cut them from the benefit package. Providing cost-effective disability and survivor benefits separately from a DB plan is feasible, but it must be considered as part of any reform and included in cost calculations.

• A DB plan could be a factor in attracting and retaining qualified employees. The DB plan can act as "golden handcuffs." Once an employee has been with the plan a certain number of years, the cost of taking a new job includes giving up much of the accrued benefits in the DB plan. This cost can deter good employees from leaving before reaching full retirement age. (Conversely, the cost of leaving can make unhappy employees feel they are trapped in their jobs until they reach full retirement age, leaving the government staffed with unhappy workers who might be less productive or effective.)

• Individual accounts in a DC plan likely will earn lower returns than the DB plan. The plan participants would not be as skilled as the DB staff or devote as much time to their portfolios. Also, accounts in a DC plan aren't likely to be able to invest in opportunities available to the DB plan, such as private equity, hedge funds, real estate, and others. While a DC plan can seek low-cost investment options for its participants, the DB plan likely will manage its funds at a lower cost than the DC plan offerings.

• With a DB plan properly structured and managed, there is the potential to eliminate employer contributions over time. This point will be explained with a couple of examples below.

The discussion so far establishes reasons to consider reforming the Commonwealth's defined benefit retirement plan.. Following is a discussion of reforms to consider. Reform efforts can be divided into two categories: those affecting only new employees, and those affecting all employees.

Reforms for New Employees

Several states and localities followed what they believed to be the private sector model by offering new employees alternatives to the traditional DB plan. The alternative could be a defined contribution (DC) plan, similar to a 401(k) plan, or it can be a hybrid plan that is part DB plan and part DC plan. As we discuss below, new employees can either be given a choice between the DB plan and the new plan or the new plan could be the only option. A 2010 survey by VRS found DC plans as an option to the DB plan were offered or about to be offered in Colorado, Florida, Montana, Ohio, South Carolina, and Utah. Mandatory DC plans already existed in Alaska and Michigan. Most reforms to state DB plans enacted in the last few years consisted of changes in the age and years of service requirements in the benefit calculations or other changes in plan features.

Optional or Mandatory

States that create new plans for new employees take one of two paths. The new plan can be optional, or it can be mandatory.

In a mandatory framework, the only retirement plan option open to new employees is the new plan. There is no new enrollment in the DB plan after a certain date. Making the new non-DB plan mandatory for new employees is still a relatively unique and untrod path. As *Institutional Investor* reports:

"Closing pension plans to new state employees is a drastic step. Before 2010 only two states had done it, shunting new hires to defined contribution plans: Alaska in 2006, and Michigan in 1997 (for general state employees). West Virginia ended its defined benefit plan in 1991 in favor of a defined contribution arrangement but returned to a pension plan in 2008." (See the excerpt from *Institutional Investor* at the end of this report for a history of West Virginia's pension reform odyssey.)

In the optional framework, new employees can choose to join either the DB plan or the new plan. In addition, existing employees usually are allowed the option to continue in the DB plan or switch to the new plan.

Neither option solves the problems of either the level or volatility of contributions to the DB plan. Any financial benefits from the new plan won't be realized for 20 years or longer. <u>In fact, creation of the new plan will increase the cost of the DB plan until it winds down</u>. The greater the number of new employees joining the new DC plan instead of the DB plan, the more the cost of running the DB plan will increase.

There are several reasons why a DB plan's costs increase when new employees stop entering it and are moved to a new plan.

- In a DB plan, when employees leave the plan before reaching full retirement age, they receive minimal cash payouts or a reduced retirement annuity. When they decide to "cash out" their accounts, they receive only their contributions plus perhaps a nominal interest rate. They don't receive a pro rata share of employer contributions or investment returns. Those remain in the fund and become "liability gains." They effectively reduce future employer contributions, because they can be used to pay the benefits of employees who remain in the plan. When the actuary computes the normal cost of the plan, some amount of liability gains from this process is included. When the liability gains no longer are available because new employees are not entering the plan, the employer's normal cost increases to cover the absence of the liability gains.
- As new employees stop entering the DB fund, the ages of the plan beneficiaries increase and new contributors stop adding to the fund. The result is the investment managers are likely to invest more conservatively in order to ensure they have cash available to pay benefits as they are due. This is likely to lower the investment returns of the fund and increase the employer's contributions over time.

- When new employees are given a choice between the two plans, there is likely to be adverse selection. Employees who are confident they won't stay until full retirement age will choose the new plan. They won't take the chance of giving the DB plan liability gains from their leaving the plan early.

  Here's an example from a recent issue of *Institutional Investor*:

  "Alaska's case illustrates his [David Stella, secretary of the Wisconsin Department of Employee Trust Funds] point. The defined benefit plan's funded ratio, measured at market value of assets, dropped to 52.4 percent for fiscal 2009 from 81.1 percent in

> June 2006, just before the plan was closed. The markets were a factor, of course: Assets dropped to \$5.1 billion from \$6.6 billion. But despite Alaska's closing the plan to new entrants, liabilities rose by about 20 percent over the four years, to \$9.7 billion from \$8.1 billion."

The article in *Institutional Investor* also has details of the results from closing DB plans in Michigan and West Virginia.

An explanation of how closing a DB plan increases costs also was included in a recent article in *The Wall Street Journal*:

> "A switch can increase the payments a public employer has to make to any pension fund it closes, particularly if the pension is underfunded, which many are. That is because when a fund closes, over time there are fewer workers contributing. The burden can fall on the public employer to make up shortfalls.
>
> "The Governmental Accounting Standards Board, or GASB, the nonprofit organization that sets accounting rules for state and local governments, requires that officials who close a defined-benefit plan account for higher annual costs triggered by projected decreases in the number of employees contributing to the fund. GASB can't require pension systems to pay off those higher annual costs, but a fund would have to register liabilities on its balance sheet if it didn't, under the rules. Those liabilities can draw the scrutiny of credit-rating firms and investors.
>
> 'It is no doubt the proper thing over the long term to…consider reforming the level of benefits" says Gabriel Petek, a public-finance analyst at credit-rating firm Standard & Poor's. But "it's not to be forgotten that these existing benefits don't just go away.'"

A closed pension fund generally would shift its asset allocation over time toward less-risky investments in the same way an individual might move from riskier to more-conservative investments as retirement nears. That shift can reduce the plan's investment returns, leaving the employer needing to pay more.

Virginia had experience with this in 2011. A proposal was considered to close the DB plan to new employees and enroll all new employees in a DC plan. The measure was not enacted after the fiscal impact statement of the proposal showed this would significantly raise the cost of the DB plan.

Selecting the Type of Plan

Much discussion about alternatives to DB plans focuses on or assumes a DC plan is the only alternative. Virginia would be well-advised, however, to consider creating a hybrid plan as part of pension plan reform. There are a number of variations of such plans and flexibility in structuring them, but in general such a plan is partly a DB plan and partly a DC plan, or it is two separate plans.

Under a hybrid plan, the DB plan element is more modest and less costly than a traditional public sector DB plan. The hybrid's DB element promises employees a relatively modest base guaranteed income. Traditional public sector DB plans, on the other hand, promise a benefit that replaces a high percentage of the employee's final income, often 75% or more of final salary. Private sector firms that still have DB plans tend to offer plans that replace a lower percentage of final salary.

The DB plan element of a hybrid plan also can contain cost controls that are in private sector DB plans but not in most of today's government DB plans. The normal retirement age, or at least the age when benefit payments begin, would be consistent with Social Security's normal retirement age or the average age of private sector retirees. (Virginia set the normal retirement age for Plan 2 at the Social Security full retirement age in 2010 legislation.) The DB element might have no inflation indexing or reduced inflation indexing. The DB element also can contain a later retirement age than the current DB plan.

The hybrid plan's DB element also can have a ceiling on employer contributions. For example, the DB plan could state the employer guarantees a certain benefit but only if it doesn't require employer contributions to exceed a certain percentage of salary. The normal cost contribution by the employer would be, as an example, four percent of salary but as in a traditional DB plan would increase when investment returns are low or other adverse events occur. The employer would increase contributions to make up for those events, but only up to the ceiling percentage of salary. The Commonwealth would set its maximum contribution at whatever level the General Assembly is comfortable for assuming the risk. When additional contributions would be required, they would come from the employee, or the employee could choose to accept a lower benefit.

The DB element of the hybrid also delivers some of the non-financial benefits of a traditional DB plan, such as encouraging employees to commit to a long-term career with the employer, reducing turnover and its costs.

Hybrid plans are proving valuable in the public sector. The federal government's pension reform in the 1980s is a hybrid with a modest DB plan and a robust DC plan. Virginia already has an optional DC plan administered by VRS that is available to employees as a supplement to the DB plan. Employees can choose to contribute a portion of their salaries to the DC plan. These contributions are not matched by the Commonwealth. The VRS optional DC plan keeps costs low while offering members a good choice of investment options. The existence of this plan would enable a smooth transition for Virginia to the hybrid model. Indiana created a hybrid plan years ago. Utah, Washington, and Michigan recently created hybrid plans, as did Orange County, California. (The Orange County plan gives current employees the option to switch from the DB plan to the hybrid plan, but an IRS ruling discourages giving employees this choice between continuing with the DB plan and switching to the hybrid. What the IRS ruling discourages is *the option* given to current employees to stay in the DB or switch to the hybrid. It doesn't discourage closing the DB plan and switching everyone to a hybrid or a DC plan. Orange County is waiting for the IRS response to its request for a waiver from the ruling.)

Alicia Munnell, a former director of the Congressional Budget Office and now director of the Center for Retirement Studies at Boston College, was quoted in *Institutional Investor*:

> "Munnell also sees a greater role for hybrid plans. 'DB and DC plans can be stacked,' she explains. 'States could provide defined benefits on the first $50,000 of a worker's salary, and on amounts over with a DC plan. That would reduce some of the cost, but it would keep so much risk from falling on taxpayers. We shouldn't be asking taxpayers who earn $50,000 themselves to be guaranteeing the lifetime income of a university chancellor who makes $150,000.'

If employees are shifted out of the current DB plan into a DC plan,, whether the DC plan is the only plan or part of a hybrid plan, careful consideration must be given to the employer's matching contribution. Presumably, the Commonwealth will want to continue contributing to its employees' retirement security even if only a DC plan is created and would do so through contributions to the DC plan accounts. The primary goal in switching to a DC plan would be to create greater certainty in the Commonwealth's costs. The Commonwealth's total contributions to the DC plan should be approximately equal to the normal cost of the current DB plan if it wants to avoid reducing benefits to employees. In recent years, contribution rates were above the normal contribution rate as a result of the less-than-expected investment returns and other results that were less favorable than the assumptions. A goal of shifting to a non-DB plan is to shift all or most of those risks to the employees. Therefore, it probably doesn't make sense for the Commonwealth to adopt a DC plan with employer contributions similar to recent contribution rates. Over time, those contribution rates would give employees benefits that are higher than under the current DB plan and higher than available from private sector DC plans.

But the contribution rate or matching contribution should not be considered in isolation. Retirement benefits are part of a total salary and benefit package. The Commonwealth should consider how its salaries compare with comparable private sector salaries and compare its benefits to private sector benefits. (See earlier references to studies showing Virginia's salaries are below the private sector's and that its benefits are a higher proportion of total compensation than the private sector's.) It then should consider how its wants the DC plan contribution rate to compare to the private sector.

Reforms for Current Employees

Any savings and certainty from pension reform must come from changing the benefits current employees receive. As explained above, shifting to a different plan for only new employees is a prudent long-term fiscal move, but its benefits won't be seen for at least a couple of decades and it is likely to increase costs in the near-term. Meaningful pension reform must include the current retirement benefits program. The alternative to reforming benefits for current employees is to continue the current plan and hope for another bull market in investments such as occurred from 1982 - 2000. After a period of returns exceeding the benchmark, employer contributions would be at a manageable level, and it might be easier to make changes in the plan for current employees.

There are legal issues to be considered when addressing reform of current benefits.

In the private sector, courts generally have agreed that employers can change non-vested retirement benefits at any time unless there is language in the plan documents that express or imply a promise not to make changes in benefits for any current beneficiaries. While details vary, in the private sector an employer usually closes a DB plan completely. Current employees and retirees keep their vested benefits, but they are not permitted to accrue additional benefits under the old plan. Current employees are immediately shifted to the new plan for all future benefits. Additional contributions usually are made by the employer to bring the DB plan to fully funded status, and the DB plan pays accrued and vested benefits to retirees as they are due. The employer makes additional contributions to the DB plan in the future as required to maintain its funded status.

The issue is not clearly addressed in Virginia's statutes or court precedents. It's not clear if the Commonwealth is permitted to reduce non-vested benefits for current employees who participate in the DB plan. Several states, most prominently Colorado, made benefit changes for existing employees the last several years. Colorado's case is an extreme one, however, because it changed the cost of living adjustment for current retirees and also retroactively for current employees for benefits earned during past years of service. These actions are being challenged in courts and have not yet been resolved .

It is likely that courts in Virginia would provide the Commonwealth the same flexibility afforded private sector employers. Benefits earned for prior years of service by current employees, at least vested benefits, could not be adjusted. Future benefits for current employees, however, could be adjusted. Therefore the Commonwealth could do as many private firms have done and decide that current employees will retain retirement benefits earned to date but that benefits earned for future years of service will be earned under a different formula or even under a different plan.

If the Commonwealth chooses to alter benefits for current employees, it can take one of two routes.

Freeze the DB plan. This would resemble the traditional private sector pattern. Employees would stop accruing new benefits and would retain vested benefits. They would immediately be shifted to the new plan, whether it is a DC plan or a hybrid plan, for all future benefits. The Commonwealth would have to fund the current unfunded liability, either with payments over time or one large payment. In addition, it would have to be prepared to put additional money in the DB plan (in either a lump sum or higher annual contributions) should actual results not match the assumptions. For example, investment returns could be less than the benchmark or inflation and life expectancy could be higher than assumed. These events would cause the Commonwealth's DB plan contributions to increase just as they do in the current arrangement.

The DB plan assumptions could be adjusted to minimize the probability of the DB contributions rising due to adverse events. After the plan is frozen, the Commonwealth could adopt very conservative assumptions when computing the unfunded liability. It could assume an investment return of no more than four percent, four percent inflation, and long life expectancies.

These assumptions would be used to determine the new normal cost and compute future annual contributions. The disadvantage of this approach is that it would increase the normal cost of the plan, and might increase it substantially. But it would increase the predictability of future contributions.

The Commonwealth could combine these two ideas if enough money is available. It could develop conservative assumptions for the plan and use those assumptions to recompute the current unfunded actuarial accrued liability. Then, the Commonwealth could contribute the unfunded liability in a lump sum and make future annual contributions based on the normal contribution rate using the new assumptions. This approach likely would increase the normal cost and annual contributions above the current normal cost and could be executed only if the Commonwealth is able to locate sufficient funds. But it would substantially reduce the probability of adverse events requiring higher annual contributions in the future, effectively locking in the future annual obligation for the duration of the plan.

Continue the DB plan, but change the benefits. The Commonwealth took steps in this direction in recent years. The Commonwealth paid the employee contributions for a long time, though this was not required by the plan documents. Now, employee contributions will be withheld from employee salaries. In addition, the inflation-indexing of benefits was reduced. Additional steps in this direction could be taken. Here are examples of benefit terms that should be considered for change.

Inflation indexing. The cost of living adjustment (COLA) in retirement benefit is extremely expensive and a major cost of the DB plan. Most private sector DB plans don't include inflation indexing or COLAs. They guarantee a fixed annual payment and distribute that amount regardless of how inflation affects its purchasing power. The employee must save and invest to maintain purchasing power over time. General estimates are that reducing a COLA by one percentage point decreases the plan liabilities by nine percent to 11 percent. The Commonwealth could further reduce or eliminate COLAs of the current DB plan for benefits employees earn in the future.

Benefit formula. A DB plan pays benefits using a formula that applies a multiplier to years worked and final salary. The Commonwealth could alter its benefit formula to reduce benefits. For example, it could require an employee to work longer to reach full retirement age. It did this for employees hired on or after July 1, 2010, by computing their benefits under a Rule of 90 instead of the Rule of 50/30 available to employees hired before that date. This could be done for current employees.

The Commonwealth also could decrease "the multiplier" used to compute benefits. The lifetime monthly benefit under VRS is based on 1.70 percent of the member's average final compensation for each year of service credit. (Average final compensation is the average of the member's 36 consecutive months of highest compensation as a covered employee.) This could be reduced for future years of service, giving employees lower initial retirement benefits. (As mentioned above, for legal reasons such a change likely would have to be prospective. That means when current members retire they would have a blended formula providing one level of payouts for benefits earned prior to the change date and another level of payouts for benefits earned after the change date.)

Delay Retirement Pay. Another option is to keep the current formula and full retirement age but delay the date benefit payments begin. For example, employees still could qualify for full retirement under the Rule of 50/30 and retire at age 50 with 30 years of service. But the plan could follow Social Security's example and the provisions of Plan 2, providing that benefit payments won't begin until the employee reaches Social Security full retirement age. Or the Commonwealth could select any other beginning payment age that is after the date full retirement benefits are earned and vested.

The Commonwealth could change the compensation base used to determine benefits. For example, rather than using the average salary of the final three years, the average of the final five (or seven) years could be used as the basis of the benefit.

Employee contributions. Currently the employee's contribution is five percent of salary. This could be increased, requiring employees to fund more of their retirement benefits. The new Plan 2 tier enacted in 2010 has an estimated employer normal cost (net of the 5% member contribution) of 3.11 % for state employees and 4.95% for teachers.

A DB pension plan doesn't have to be a burden on the employer. General Electric and Prudential, to give two examples, offer DB plans for most employees and have not made contributions to the plans for decades. Those plans, however, differ from the Commonwealth's in important ways. The employers fully funded the plans years ago, and they used conservative assumptions when making the contributions. (They also benefited by being for-profit enterprises; the contributions reduced their taxes.) The plans offer fairly modest benefits, and employees still are required to make contributions to the plans. Because the plans were fully funded and used conservative assumptions, the plans could invest relatively conservatively. They can invest in assets with limited volatility, because they don't have to earn high investment returns to try to stay fully funded. The combination of a conservative investment return assumption and a conservative investment portfolio means the fund is less likely to be adversely affected by difficult market periods by earning less than its benchmark return. It also means the fund doesn't have to be invested in volatile assets that could lose substantial value within a short period. (Again the private firms benefit from being for-profit enterprises; when investment returns exceed assumptions, the increase is reflected on the firms' income statements.) It is important to recognize that these DB plans are not the full retirement package offered to employees. The firms offer DC plans to which the employers make some level of matching contributions.

Conclusion

Pension reform is high on the agendas of many state and local governments. The Commonwealth implemented some reforms in recent years. High and volatile contribution rates, significant unfunded status, and unfavorable demographic trends should cause the Commonwealth to consider additional reforms. The full range of options should be examined, drawing from experiences in both the private and public sectors.

APPENDIX 1

From the 2010 VRS Annual Report

FIGURE 2 .10 – DEFINED BENEFIT PLAN PROVISIONS AS ESTABLISHED BY TITLE 51.1 OF THE *CODE OF VIRGINIA* (1950), AS AMENDED

Virginia Retirement System (VRS): Non-Hazardous Duty Members.
Full-time permanent, salaried employees of state agencies, including public colleges and universities, as well as local public school divisions and VRS-participating political subdivisions are covered automatically under VRS upon employment. Some part-time permanent, salaried state employees also are covered under VRS.

VRS members are eligible to retire with an unreduced benefit beginning at age 65 with at least five years of service credit or age 50 with at least 30 years of service credit. They may retire with a reduced benefit as early as age 55 with at least five years of service credit or age 50 with at least 10 years of service credit. (Some political subdivisions elected different eligibility requirements based on previous plan provisions.) The lifetime monthly benefit under VRS is based on 1.70% of the member's average final compensation for each year of service credit. Average final compensation is the average of the member's 36 consecutive months of highest compensation as a covered employee.

Virginia Retirement System (VRS): Members Eligible for Enhanced Hazardous Duty Coverage. Full-time permanent, salaried sworn sheriffs, deputy sheriffs and regional jail superintendents and officers are covered automatically for enhanced hazardous duty under VRS upon employment. Political subdivisions may elect enhanced hazardous duty coverage for other full-time, salaried sworn law enforcement officers, firefighters and emergency medical technicians.

VRS hazardous duty members are eligible to retire with an unreduced benefit beginning at age 60 with at least five years of service credit or age 50 with at least 25 years of service credit. They may retire with a reduced benefit as early as age 50 with at least five years of service credit. The lifetime monthly benefit for VRS-covered sheriffs and superintendents of regional jails is based on 1.85% of the member's average final compensation for each year of service credit. The retirement multiplier for other eligible hazardous duty members is 1.70%. Political subdivisions providing enhanced coverage have the option to elect the 1.85% multiplier for these employees. VRS hazardous duty members who have at least 20 years of hazardous duty service credit at retirement also are eligible for a hazardous duty supplement. The supplement is added to the monthly benefit and continues until the member's normal retirement age under Social Security.

APPENDIX 2

Legislative Initiatives

During the 2010 session, the Virginia General Assembly enacted several bills that affect public employees and retirees covered under VRS:

PLAN DESIGN CHANGES. House Bill 1189 and Senate Bill 232 created a new benefit structure for members hired or rehired on or after July 1, 2010. The new provisions are referred to as Plan 2; current provisions are referred to as Plan 1. The new provisions apply to the defined benefit (DB) plan and the optional retirement plans (ORPs) authorized or administered by VRS.

PROVISIONS	VRS PLAN 1 *For members hired before July 1, 2010*	VRS PLAN 2 *For members hired or rehired on or after July 1, 2010*
Average Final Compensation	Average of 36 highest consecutive months of creditable compensation	Average of 60 highest consecutive months of creditable compensation
Member Contributions (DB Plans)	Employee or employer contributes 5% member contribution	State employees contribute the 5% member contribution. School and political subdivision employees may contribute some or all of the 5% member contribution, depending on the employer's election. Employee contributions are paid on a pre-tax salary reduction basis.
Member Contributions (ORP Plans)	10.4% employer contribution	8.5% employer contribution and 5% member contribution on a pre-tax salary reduction basis. Employers under the ORP for Higher Education may increase the employer contribution to 8.9%, provided it is paid with non-state funds.
Normal Retirement Age	VRS: Age 65	Normal Social Security retirement age
	State Police Officers' Retirement System (SPORS) members, Virginia Law Officers' Retirement System (VaLORS) members and political subdivision VRS members eligible for enhanced hazardous duty coverage: Age 60	Same as Plan 1
	Judicial Retirement System (JRS): Age 65	Same as Plan 1
Retirement Multipliers	VRS: 1.7% SPORS: 1.85% VaLORS: 1.7% or 2.0% as elected by the member Sheriffs and regional jail superintendents: 1.85%	Same as Plan 1

PROVISIONS	VRS PLAN 1 *For members hired before July 1, 2010*	VRS PLAN 2 *For members hired or rehired on or after July 1, 2010*
Retirement Multipliers, continued	Eligible political subdivision hazardous duty employees: 1.7% or 1.85%, depending on employer's election JRS: 1.7%	Same as Plan 1
Unreduced Retirement	VRS: Age 65 with at least five years of service credit or age 50 with at least 30 years of service credit	VRS: Normal Social Security retirement age with at least five years of service credit or when age and service equal 90
	SPORS, VaLORS and eligible political subdivision hazardous duty employees: Age 60 with at least five years of service credit or age 50 with at least 25 years of service credit	Same as Plan 1
	JRS: Age 65 with weighted service equal to at least five years of service credit or age 60 with weighted service equal to at least 30 years of service credit	Same as Plan 1. *Note*: The weighting factors for members covered under the JRS Plan 2 vary from those for members covered under the JRS Plan 1.
Reduced Retirement	VRS: Age 55 with at least five years of service credit or age 50 with at least 10 years of service credit	VRS: Age 60 with at least five years of service credit
	SPORS, VaLORS and eligible political subdivision hazardous duty employees: Age 50 with at least five years of service credit	Same as Plan 1
	JRS: Age 55 with weighted service equal to at least five years of service credit	Same as Plan 1
Cost-of-Living Adjustment (COLA)	Matches first 3% increase in the Consumer Price Index-Urban and one-half the remaining increase up to a maximum COLA of 5 percent, when provided	Matches first 2% increase in the Consumer Price Index-Urban and one-half the remaining increase up to a maximum COLA of 6 percent, when provided
Purchase of Prior Service	Three-year eligibility period to purchase prior service at 5% of compensation or average final compensation. Cost is based on an actuarial equivalent rate after three years.	One-year eligibility period to purchase prior service at an approximate normal cost rate as a percentage of compensation or average final compensation. Cost is based on an actuarial equivalent rate after one year. *Exceptions:* Refunded service and no-cost military leave.

APPENDIX 3

West Virginia's Pension Plan Reform History
From *Institutional Investor*, "State Pension Plans Scramble to Avoid Bankruptcy," Feb. 17, 2011, available at http://www.cnbc.com/id/41642979/page/4/

West Virginia's teachers have made a round-trip from the world of defined benefits to defined contributions and back. The traditional plan was closed in 1991 because of very poor funding, bottoming out at just 17 percent in June 2003. nfo@vote4bob.orgState employees were not satisfied with the defined contribution plan that replaced it, however: Compared with an average annual benefit under the old defined benefit plan of about $30,000, teachers approaching retirement held just $23,000 — that's total assets, not annual income — in their individual defined contribution accounts.

"Under the new plan, people had less to retire on for a lifetime than they would have received every year, so you can see why there was pressure to return to the old plan," notes Terasa Miller, acting executive director of the West Virginia Consolidated Public Retirement Board, which oversees two major plans, for state employees and teachers, with 56,000 and 63,000 members, respectively, and seven smaller plans.

Not only did benefits turn out to be inferior, plan managers were not convinced that the new arrangement was saving the state and employers in terms of "normal cost" (the annual expense of providing for each year's pension benefit), prompting several years of studies on the costs of restoring the defined benefit plan. Aside from amortization of the past liability, normal cost has since turned out to be about 4.3 percent of payroll — roughly 40 percent lower than the 7.5 percent employer contribution that was going into the defined contribution plan.

"We realized there could be immediate savings on what was being put in to fund each year's future benefits, and any additional amount could have gone toward paying down the unfunded liability," explains Miller. Legislation was passed to return all employees to the defined benefit plan in 2005, but some resisted having to leave the defined contribution plan, delaying the change until 2008.

The West Virginia legislature also has actively dealt with the defined benefit plan's previous underfunding. Lawmakers confronted the amortization of past liabilities in 1994, when they developed a 40-year plan, "and they have firmly stuck to that," says Miller. Moreover, she adds, the state has dedicated a large part of the money it receives from tobacco liability settlements to replenishing the pension plans. Another part of the legislation prohibits benefits being increased until the plan is fully funded, scheduled for 2034. Funding of the teachers' plan had improved to 43 percent at market value of assets by June 2009 — still low, but feasibly on the way to full funding.

"Our legislature thought this was the best plan for our teacher members, to give them a guaranteed benefit so that they wouldn't need other state services in retirement when their defined contribution monies were exhausted," Miller says. "From a policy standpoint, I think it was the right decision.

APPENDIX 4

Sources and Recommended Reading

JLARC 2008 compensation study
http://jlarc.state.va.us/reports/Rpt378.pdf

DHRM 2010 compensation study:
http://www.dhrm.state.va.us/reports/AnnualSalaryReport2010.pdf

Fiscal impact of closing Virginia's DB plan to new employees and requiring all new employees to join a DC plan:
http://leg1.state.va.us/cgi-bin/legp504.exe?111+oth+HB2465F158+PDF

"DB plans in cross hairs in state budget battles," by Randy Diamond, *Pensions & Investments*, March 7, 2011.

"State Pension Plans Scramble to Avoid Bankruptcy," by John Keefe, *Institutional Investor*, Feb. 17, 2011, available online at http://www.cnbc.com/id/41642979

"The Crisis in Public Sector Pension Plans," by Ellen Norcross and Andrew Biggs, Mercatus Center Working Paper, June 23, 2010, available online at http://mercatus.org/pensions

"Improving Pension Portability for K-12 Teachers," Sandra S. Ruppert (February 2001) (State Higher Education Executive Officers) available online at
http://www.nga.org/Files/pdf/PENSION.pdf

"Pension Funds Strained, States Look to 401(k) Plans," by Steven Greenhouse, *New York Times*, February 28, 2011, available online at:
http://www.nytimes.com/2011/03/01/business/01pension.html?src=me&ref=business

"States Mull Shift in Workers Pensions," by Jeannette Neumann, *The Wall Street Journal*, March 1, 2011. Available online at:
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"Report shows how states are addressing crisis," by Christine Williamson, *Pensions & Investments*, December 13, 2010, page 15.

D'Arcy, Stephen, James Dulebohn, and Pyungsuk Oh. 1999. "Optimal Funding of State Employee Pension Systems." *Journal of Risk and Insurance* 66(3).

Mumy, Gene E. 1978. "The Economics of Local Government Pensions and Pension Funding." *The Journal of Political Economy* 86(3): 517-527.

Indiana public pension fund information available online at http://www.in.gov/perf/2285.htm

Virginia Retirement System, Comprehensive Annual Financial Report for the year ended June 30, 2010, available online at http://varetire.org/Pdf/Publications/2010-annual-report.pdf

"The Top 10 Advantages of Maintaining Defined Benefit Pension Plans," NCPERS Research Series, January 2011, page one (National Conference on Public Employee Retirement Sytems, Washington, D.C.)

Summary of annual pension plan changes by states plus links to other NCSL pension reports
http://www.ncsl.org/default.aspx?tabid=13399

SUMMARY OF STATE DC PLANS. SEPT. 2009 also discusses hybrid plans by states
http://www.ncsl.org/Portals/1/Documents/employ/StateGovtDCPlansSept2009.pdf

About the Author

ROBERT C. CARLSON

Robert C. Carlson is editor of the monthly newsletter and web site, *Retirement Watch*. Carlson is Chairman of the Board of Trustees of the Fairfax County Employees' Retirement System, which has over $2.9 billion in assets, and was a member of the Board of Trustees of the Virginia Retirement System, which oversaw $42 billion in assets, from 2001-2005. He was appointed to the Virginia Retirement System Deferred Compensation Plans Advisory Committee in 2011.

His latest book is *Personal Finance for Seniors for Dummies*, published by John Wiley & Co. in 2010 (with Eric Tyson). Previous books include *Invest Like a Fox…Not Like a Hedgehog*, published by John Wiley & Co. in 2007, and *The New Rules of Retirement*, as published by John Wiley & Co. in the fall of 2004.

He has written numerous other books and reports, including *Tax Wise Money Strategies*, *Retirement Tax Guide*, *How to Slash Your Mutual Fund Taxes*, *Bob Carlson's Estate Planning Files*, and *199 Loopholes That Survived tax Reform*. He also has been interviewed by or quoted in numerous publications, including *The Wall Street Journal*, *Reader's Digest*, *Barron's*, *AARP Bulletin*, *Money*, *Worth*, *Kiplinger's Personal Finance*, the *Washington Post*, and many others. He has appeared on national television and on a number of radio programs. He is past editor of *Tax Wise Money*.

Carlson is an attorney. He received his J.D. and an M.S. (Accounting) from the University of Virginia and received his B.S. (Financial Management) from Clemson University and passed the CPA Exam. He also is an instrument rated private pilot. He is listed in several recent editions of *Who's Who in America* and *Who's Who in the World*.

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"… a wise and frugal government, which shall restrain men from injuring one another, shall leave them otherwise free to regulate their own pursuits of industry and improvement, and shall not take from the mouth of labor the bread it has earned. This is the sum of good government, and this is necessary to close the circle of our felicities."

Thomas Jefferson

1801

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