

Stable Funding

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Introduction

At a retirement board meeting a couple of years ago, a board member and I got into a discussion of risk and plan investments. He asked if there wasn't some way to reduce investment risk, especially when the plan was well-funded. Was there any way to "take money off the table" when the plan was ahead? Additional impetus to the discussion was the marketing of liability-driven investing (LDI) approaches by various investment firms. The board asked me to consider what role, if any, LDI could play for the fund.

In December 2007, I participated in a meeting at the offices of the plan's investment consultant. Attending the meeting were members of the plan staff, the investment consultant and three representatives of a vendor of LDI products, in addition to myself.

At that meeting I presented a conceptual approach that could improve the security of retiree benefits while reducing the variability of employer contributions and improving the long-term prospects of the plan as a whole. The response to our proposal by the attendees was favorable, and we promised to research the concept in more detail and present the results in a memo. This memo was presented to the board; the reaction was favorable, though no action was taken.

This article summarizes the memo presented to the board. The concepts were included in a presentation at the Employee Benefits Meeting sponsored by the Society of Actuaries on June 5, 2008. Anyone who is interested can obtain the PowerPoint presentation from the Society's Web site, www.soa.org, or from me directly.

The Problem

While it seems counterintuitive, the principal problem with defined benefit pension plans is that they tend to become overfunded.

This may seem to be a peculiar statement: It is underfunding that is cited as a problem in the press. However, if you read on, you will see how underfunding usually arises from overfunding.

In Graph 1 below we show the simulated cost of an experimental pension plan we have modeled. In this simulation, the plan starts out 100-percent funded with a cost of about 11 percent of pay. Future investment returns are simulated, but the average of all the simulated returns is forced to equal the actuarial return assumption. In other words, all actuarial assumptions are met, on average. The actuary has correctly forecast the average return and CPI, and has correctly forecast all rates of retirement, death and termination. You couldn't ask for more from your actuary.

However, the average cost of the plan—shown as a red line—is not level, but decreases. The median cost of the plan—the middle blue line—is zero at 60 years and later: There is more than a 50-percent chance that employer contributions will drop to zero after 60 years.

Graph 1

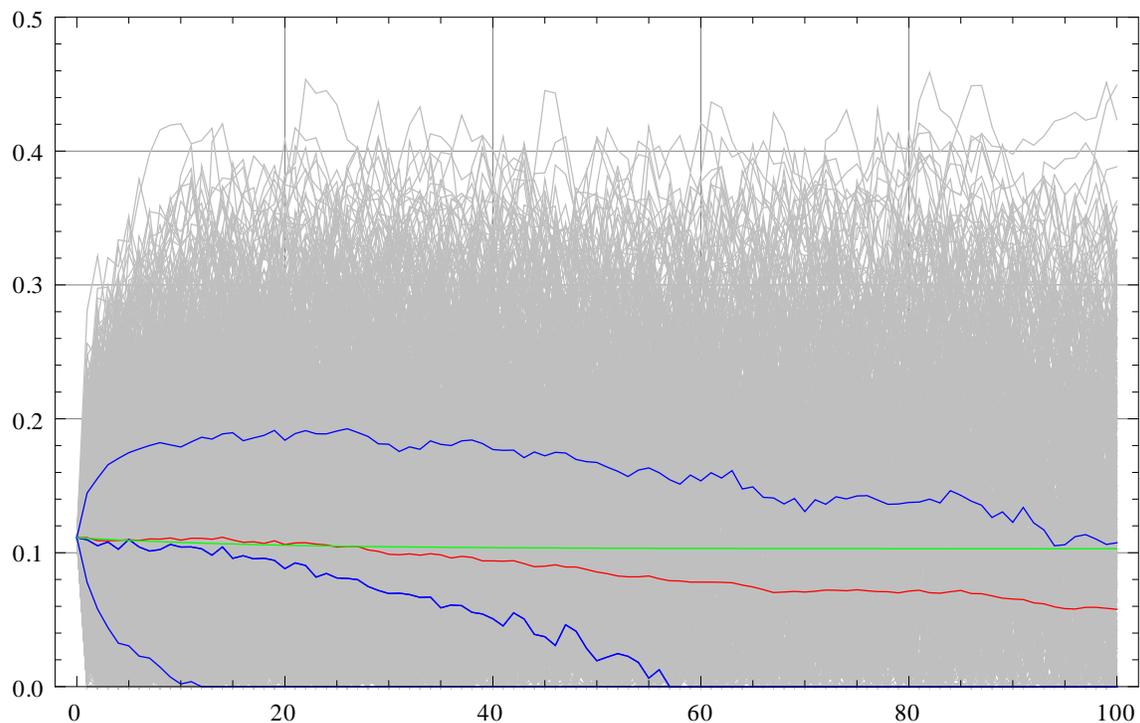
The simulated annual contribution rate of an experimental pension plan.

The horizontal axis is years; the vertical axis is cost as a percentage of pay.

The green line shows the cost projected assuming all actuarial assumptions are exactly met.

The thin gray lines are the costs from simulation trials. The blue lines show the median and quartile costs.

The average cost is shown in the red line.



What is happening here? The actuarial assumptions are being met, but the plan is becoming so overfunded that the cost tends to drop to zero. Why aren't costs stable, at least on average? Why is there overfunding?

There are several factors at work here, but the most significant is the exclusive benefit rule in Section 401(a) of the Internal Revenue Code. The exclusive benefit rule states that pension plan assets must be used for the exclusive benefit of plan members. The impact of this rule on pension plans is that assets cannot be withdrawn from the plan except to pay for plan benefits and related expenses.

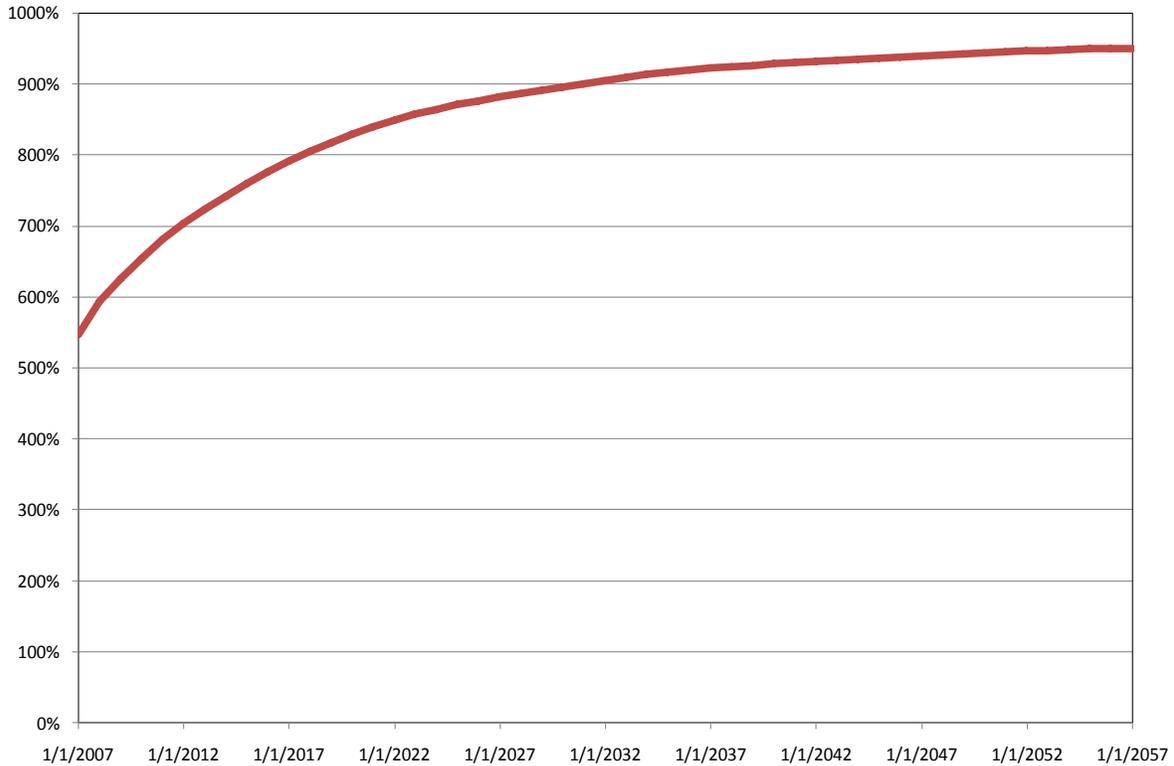
Consequently, the contribution door swings only one way: When times are bad and the plan is underfunded, the employer must add to plan assets through increased contributions. When times are good and the plan is overfunded, the employer may reduce contributions—even stop them—but assets cannot be withdrawn from the plan. Any excess assets must remain in plan trust funds, where they continue to earn investment returns.

This is reflected in the simulation above. In most trials, there is eventually a string of good returns, the plan becomes overfunded, and the employer contribution drops to zero. Frequently, the excess assets compound, and the cost remains zero forever. This can be called “zero trapping,” the employer cost is trapped at zero by the plan's overfunding.

Maybe this isn't so bad. The overfunding gives the plan sponsor the opportunity to improve benefits. That appears to be the only use for the “excess” assets, to increase benefits. The problem is that increasing benefits not only increases plan cost, but it also increases plan *risk*.

As we discussed at board meetings, one of the most important measures of a plan's risk is the ratio of plan assets to payroll. Graph 2 below shows a projection of plan assets as a percentage of active member payroll. This ratio indicates the sensitivity of the plan to the returns earned on plan assets. We note in the graph that plan assets currently are between five- and six-times covered payroll; over the next 20 years, assets are expected to reach and then exceed nine-times payroll.

Graph 2
Projection of Assets as a Percentage of Payroll
 The horizontal axis is years; the vertical axis is the ratio of plan assets to active member payroll.
 This projection assumes a level active workforce and that all actuarial assumptions are exactly met.



To appreciate the impact of the assets to payroll ratio on plan cost, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil, because the assets are so small.

On the other hand, consider the situation for this plan. Suppose the plan's assets lose 10 percent of their value in a year. Since they were assumed to earn 8.16 percent, there is an actuarial loss of 18.16 percent of plan assets. Based on the current ratio of asset to payroll (548 percent), that means the loss in assets is about 100 percent of active payroll. There is only one place for the loss to come from: The employers. Consequently, barring future offsetting investment gains, the employer has to make up the asset loss in future contributions, and that loss is over 100 percent of payroll.

Furthermore, in the future, the sensitivity of plan cost to market fluctuations will increase. Fifty years from now, the 10-percent loss discussed above will translate to a loss of over 170 percent of payroll, which must be made up through employer contributions.

If, as a result of overfunding, plan benefits are increased, then naturally plan liabilities will increase as well. Actuarial funding methods adjust employer contributions so that plan assets will equal the increased accrued liabilities. Since payroll has not changed, plan assets now become an even higher

multiple of payroll, and the plan cost now becomes more sensitive to investment market fluctuations. The risk to the plan sponsor increases.

To summarize:

- Pension plans tend to become overfunded due to the exclusive benefit rule: You can put money in, but you can't get it back out, except through higher benefits.
- To reduce the overfunding—to use the “excess” assets—plan sponsors and employee groups seek to increase plan benefits.
- The increased benefits cause liabilities to increase, increasing assets relative to payroll, and making employer contributions more subject to the investment markets, more volatile, and more difficult to budget.
- Periods of good investment returns are inevitably followed by periods of bad returns. The plan becomes underfunded.
- Benefits cannot be reduced, because of their contractual nature, and employer contributions must increase sharply.
- Everyone holds their breath, the market turns around, and the plan becomes overfunded once again.
- Benefits are improved again, and the cycle repeats. However, this time assets are higher relative to payroll, the contributions change more radically in market ups and downs, and each fiscal crisis is worse than the last.
- The plan is closed to new entrants and replaced with a defined contribution plan for new hires.

In short, defined-benefit plans fail up. They are loved to death. The cycle of overfunding, benefit improvements, budgetary crisis, and the return of overfunding results in an upward spiral of benefit levels, increasing cost instability, and final abandonment of the plan altogether. We have seen this occur in Alaska, West Virginia and Michigan.

Can practical steps be taken to prevent this?

Possible Solutions

The upward spiral of benefits, cost, and risk in public sector defined benefit plans has not gone unnoticed. Some commentators have proposed a solution: Invest in bonds. This is sometimes the thrust of what has become known as liability-driven investing (LDI).

Investment in bonds—particularly if the cash flow of the bonds is matched to the cash flow of the pension plan—can materially reduce the volatility associated with plan investments. When properly matched, plan assets and liabilities move together, eliminating much of the unpredictability of employer contributions.

There is only one problem with this solution: Cost. Certainty costs money; no one gives away insurance for free. While investment in bonds reduces cost volatility, it does so by reducing the return on plan assets. Therefore, from an investment standpoint, you are very certain of achieving a very poor result.

There are other issues as well. Over the years, public pension plans have constructed some of the finest investment staffs in the world. The investment strategies carried out by these plans have consistently exceeded their actuarial assumptions, causing the overfunding discussed above.

Moreover, structurally, public defined-benefit plans have unique advantages in the investment markets. They have tremendous reach, able to include international markets, emerging markets and private markets in their portfolios. They are large, with low cost relative to their assets. They have no fixed investment horizons, as individuals do. In many cases, the cash flows from turnover in their bond portfolios is more than sufficient to pay their benefit streams for the foreseeable future. Therefore, they are the ultimate long-term investors, able to wait out any market.

Wouldn't it be silly to scrap one of the things that government does really well—investing assets and providing retirement benefits with the proceeds? There must be a less draconian solution, and there is: STABLE Funding.

STABLE Funding

This may not be the best acronym in the world, but STABLE stands for Stabilize Tax rates, Assets, Benefits, Liabilitys, and Employer costs. STABLE funding coordinates actuarial funding policy with investment policy in order to stabilize and secure benefits and costs. It would work like this:

- If the funding ratio of the plan is less than 100 percent, current investment policy would remain in place. Assets would be invested in equities and fixed-income investments, with the same policies and procedures currently in use.

It is when the funding ratio exceeds 100 percent that a change would occur. Assets above liabilities would be invested in bonds, where the cash flow of the bond portfolio matches the cash flows for the inactive members. Therefore, a portion of the inactive

liabilities would be *immunized*: The liability cash flows would be matched by bond cash flows and maturities.

- The transfer from general to immunized assets would mean that the immunized liabilities would be computed using the expected return on the immunized assets. This would increase the plan's nominal liabilities.

The transfer of assets to the immunized portfolio and the revaluation of the liabilities thus immunized would be sufficient to bring the plan's funding ratio down to 100 percent.

- If asset returns continue to be favorable, and the funding ratio again exceeds 100 percent, additional assets would be transferred to the immunized portfolio, dedicated to payments on an additional portion of the inactive liability (the liability for retired, disabled, and vested terminated members and their beneficiaries).
- As assets are used to immunize the inactive liabilities, the security of the benefit promise to inactive members improves: High-grade bonds back up the pension promise to inactive and retired members.
- As assets are used to immunize inactive liabilities, the volatility of the total investment portfolio is reduced: Bond returns are more predictable than those from equities. Accordingly, there is less variability in the employer contribution, with a corresponding improvement in budgetability.
- The general portfolio, representing active and non-immunized inactive liabilities, remains intact.
- A key feature of STABLE Funding is that the door swings both ways. If asset returns are poor, and the plan's funding ratio drops below 100 percent, some of the inactive liabilities are de-immunized, transferred to the general asset portfolio, and invested in the same way as active assets.

De-immunized liabilities would be valued at the usual actuarial return rate, causing them to decrease, reflecting the lowered security of their underlying assets. Enough assets would be transferred to the general portfolio to bring the funding ratio to 100 percent.

- Since the funding ratio is held at 100 percent to the extent possible, there is less likely to be an unfunded liability to be amortized through increased employer contributions.
- Inactive liabilities are immunized or de-immunized as necessary to hold the funding ratio at 100 percent. The funding ratio becomes less volatile, and employer contributions are stabilized.

The overall operation of STABLE Funding is therefore very simple: Excess assets are used to immunize inactive liabilities and improve the security of the plan's promises to retired and inactive

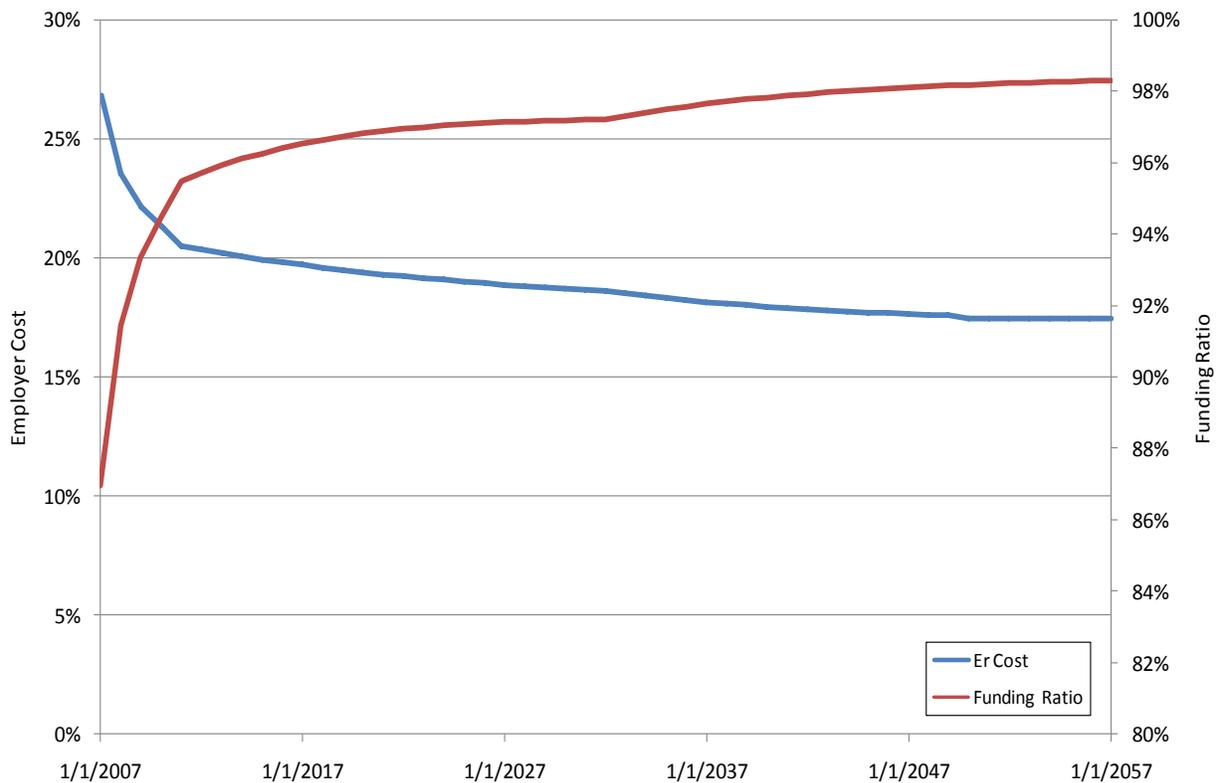
members. Simultaneously, employer contributions are made less variable and more predictable.

Examples

We have constructed a preliminary model to determine how STABLE Funding would work for the plan. While the model is a simple one, we feel that it captures the principal impacts on the plan fund.

First, consider what will happen if all actuarial assumptions are exactly met. This situation is summarized in Graph 3 below.

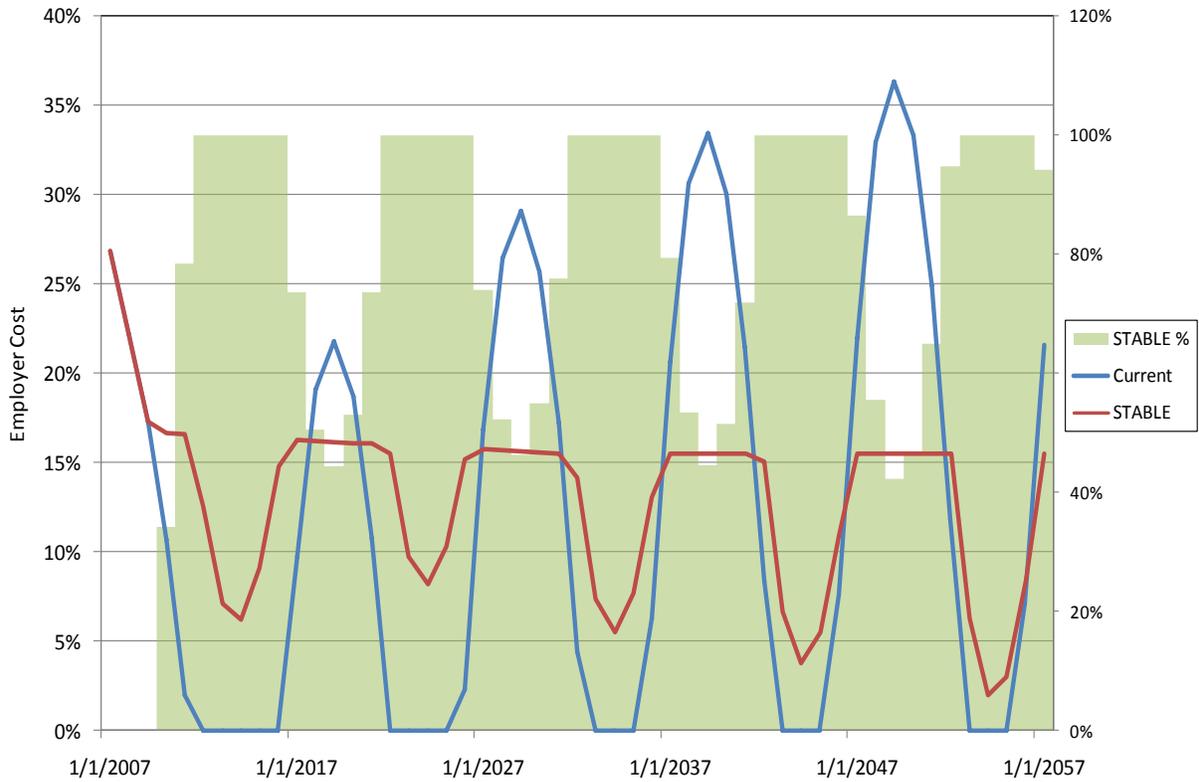
Graph 3
Projection of the Plan Cost and Funding as a Percentage of Payroll
The horizontal axis is years; the left vertical axis is employer contribution as a percentage of pay; the right vertical axis is the funding ratio.



In Graph 3 we see the typical actuarial projection. The funding ratio improves over the next 50 years, the unfunded liability is amortized and paid down, the employer contribution decreases. Since 100-percentfunding is never reached, no inactive liabilities are immunized and the fund investment policies and procedures are unchanged. STABLE Funding is never activated.

Suppose we test a different scenario. Suppose we have a pattern of five years of good returns (19.7 percent on market value) followed by five years of poor returns (-2.3 percent on market). Graph 4 below shows the employer cost that would result, using both traditional funding and STABLE Funding.

Graph 4
Projection of the Plan Cost as a Percentage of Payroll
 The horizontal axis is years; the left vertical axis is employer contribution as a percentage of pay;
 the right vertical axis is the portion of the inactive liability that has been immunized, shown as green shading.



In Graph 4, we start with five years of wonderful returns: 19.7 percent annually. Using traditional funding, the plan cost drops to zero in six years. Then there are five poor years of return—losses of 2.3 percent per year; the plan cost remains at zero until the plan is no longer overfunded, at which time the cost increases sharply to about 22 percent of pay.

As we cycle through the alternating five year fat and lean periods, the traditional actuarial cost oscillates up and down, with greater variation each cycle. Note this occurs even though the average return is 8.16 percent, the actuarial assumption. The increasing variation is the result of the increasing sensitivity of the plan to the market, caused by the increasing ratio of assets to payroll, shown in Graph 2 above.

Graph 4 also shows the employer contribution to the plan under STABLE Funding. In the first five years of good returns, the cost decreases, but rather than immediately decreasing to zero, it levels out for a couple of years at the normal cost. During this period of time, the funding ratio reaches 100 percent, and some of the inactive liabilities are immunized. The percentage of the inactive liabilities immunized, shown in the green shaded background in Graph 4, increases to 100 percent.

Only after all inactive liabilities are fully immunized are assets available to reduce employer contributions. Employer contributions drop, but not to zero. As we enter into a five-year period of poor

returns, the employer cost increases, but only to the normal cost. Instead of creating an unfunded liability and increasing employer contributions, a portion of the inactive liabilities is de-immunized, with assets moving to the general asset pool in a sufficient amount to keep the funding ratio at 100 percent.

The pattern of varying costs continues under STABLE Funding as well as under traditional funding, but the swings under STABLE are much less violent. Note particularly that the contribution peaks are completely absent under STABLE Funding—at least in this scenario—and at least 40 percent of the inactive liability is immunized after the first few years. Therefore, the employer gets relief from spikes in contribution rates, and the plan members experience greater security for their benefits.

We can look at another scenario. Suppose the last 50 years, from 1957 through 2006, repeated itself in the market place during the next 50 years. The resulting employer costs would be those shown in Graph 5, while the resulting funding ratios would be as shown in Graph 6.

We note in Graph 5 that favorable investment returns would drive the traditional actuarial cost to zero over the first dozen years or so. After that point, poor investment performance would cause the cost of the plan to increase sharply, to nearly 50 percent of pay. Then the market would turn favorable again, and plan costs would drop to zero after about 30 years, where they would remain.

Insofar as funding is concerned, in Graph 6 we see that the funding ratio with traditional funding would gradually increase after 30 years to about 250 percent, almost guaranteeing an improvement in plan benefits.

The cost and funding ratio are less variable using STABLE Funding. In the first 15 or so years of favorable returns, the cost decreases to the normal cost of the plan and stays there. Instead of excess assets being used to decrease employer contributions, they are used to immunize a portion of inactive liabilities. When returns become unfavorable, these inactive liabilities are de-immunized and returned to general assets. The funding ratio drops below 100 percent, so the employer cost increases, but not as much as under traditional funding.

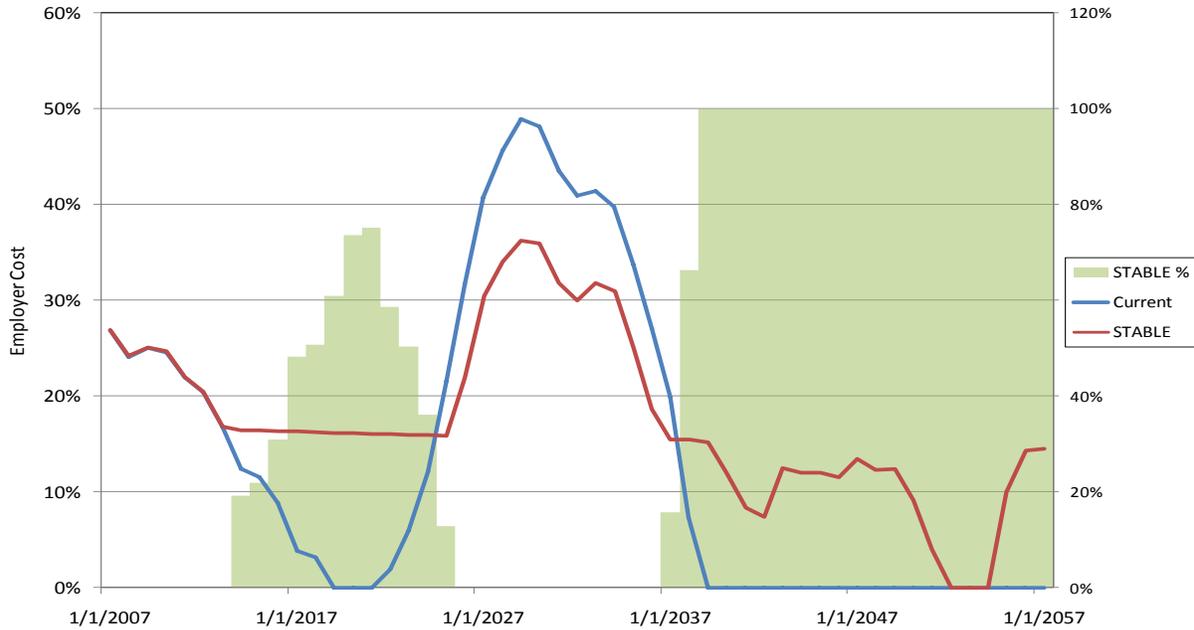
After 30 years, when investment returns again become favorable, the STABLE Funding cost decreases to the plan normal cost, and assets again are set aside to immunize inactive liabilities. Ultimately, 100 percent of inactive liabilities are immunized, and the funding ratio hovers around 100 percent. At this point, the plan cost is fairly predictable, and benefits for retired and other inactive members are fully secured by a matching bond portfolio.

In Graph 7 we can see the projected allocation of the investment portfolio to fixed-income securities under a STABLE Funding regimen. Currently the portfolio is about 33-percent in bonds and cash.

Graph 5

Projection of the Plan Cost as a Percentage of Payroll: Last 50 Years of Returns

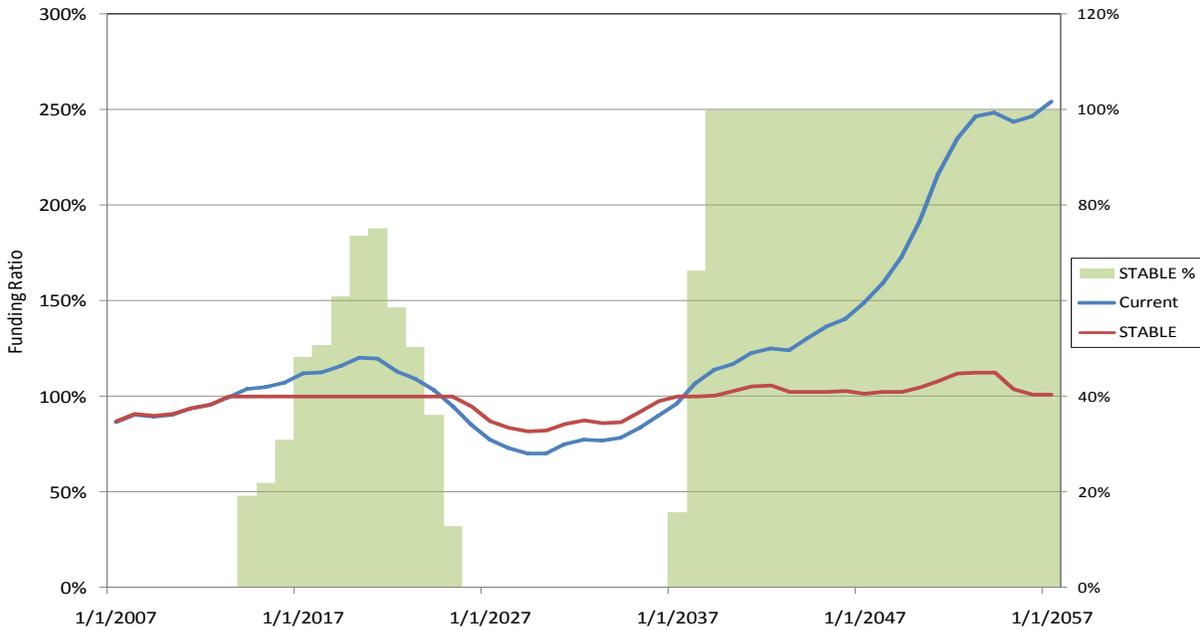
The horizontal axis is years; the left vertical axis is employer contribution as a percentage of pay; the right vertical axis is the portion of the inactive liability that has been immunized, shown as green shading.



Graph 6

Projection of the Plan Funding Ratio: Last 50 Years of Returns

The horizontal axis is years; the left vertical axis is the actuarial funding ratio; the right vertical axis is the portion of the inactive liability that has been immunized, shown as green shading.

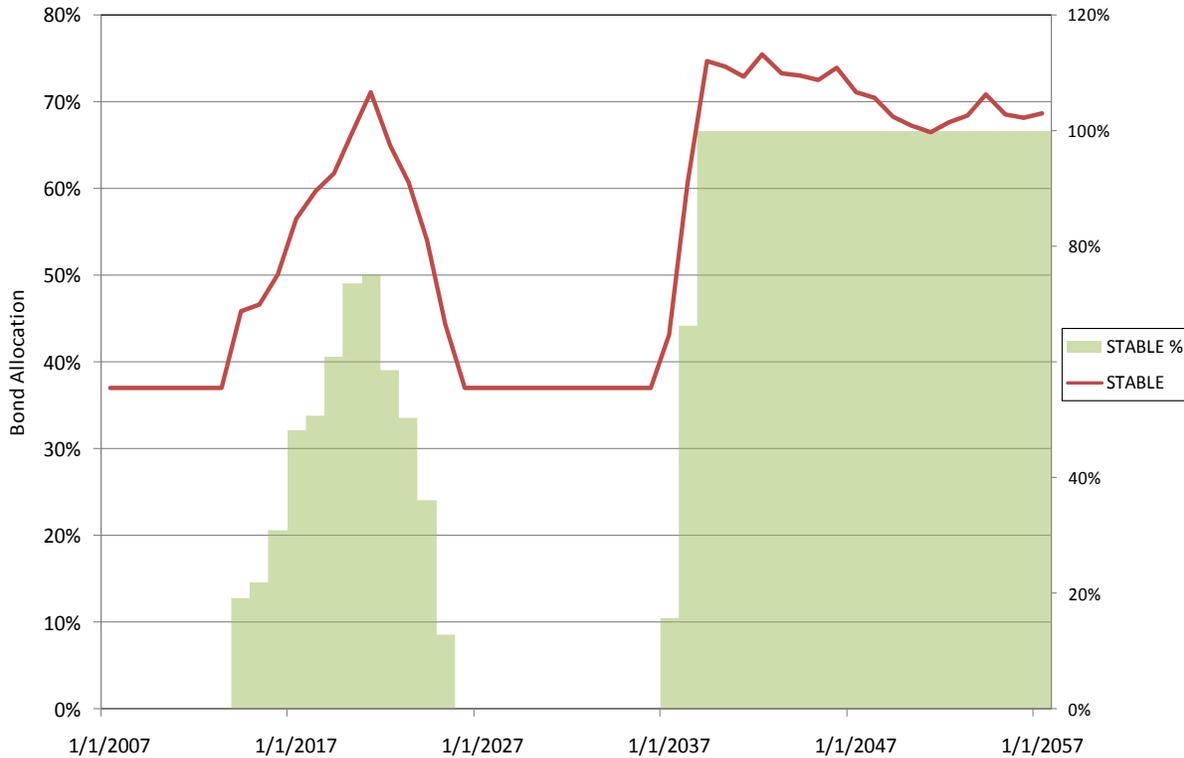


If STABLE Funding were in effect, as the plan becomes overfunded and more assets are moved into the immunized portfolio, the fixed income allocation increases, naturally. In periods in which the inactive benefits are fully immunized, the overall portfolio allocation to fixed income can be as high as 75 percent.

At this point, the investment goals of the fund will have changed. Rather than trying to earn as high a return as possible in order to fund accrued liabilities, the twin goals of securing benefits and stabilizing employer costs will have assumed priority. The fund will be more in the nature of a traditional insurance company than an ordinary public sector pension plan.

Graph 7
Projection of the Plan Bond Allocation: Last 50 Years of Returns

The horizontal axis is years; the left vertical axis is the percentage of the portfolio invested in fixed income; the right vertical axis is the portion of the inactive liability that has been immunized, shown as green shading.



Advantages and Disadvantages

If we consider the nature of STABLE Funding, we can see that it offers a number of advantages.

- STABLE Funding improves benefit security.

Once the plan's funding ratio reaches and exceeds 100 percent, assets are moved from the general investment portfolio to an immunized bond portfolio. The maturities and durations of the bonds in the immunized portfolio are based on the cash flows of benefits payable to the retired and other inactive members.

Thus, at retirement, some or all of each retiree's benefit is backed by a matching portfolio of high quality bonds, with little chance of loss of principal. In addition, the overall mix of the investment portfolio becomes more heavily weighted by bonds as immunization increases, improving benefit security for all members.

- STABLE Funding makes employer contributions more predictable.

As assets flow into the immunized portfolio, they are converted to bonds with maturities based on the cash flow of benefits to retired and inactive members. Such bond portfolios have highly stable and predictable returns. As immunization proceeds, a larger and larger portion of the overall asset mix produces a stable return, which in turn stabilizes the employer contribution.

However, a more important source of stabilization arises from the use of the immunized portfolio as a reserve. When investment returns on the general portfolio are below expectations, some of the inactive liabilities are de-immunized, and assets flow from the immunized portfolio to the general portfolio in sufficient amounts to keep the funding ratio at 100 percent. Thus, no unfunded liabilities are created, no amortization payments are due, and the employer contribution continues to be the normal cost.

- STABLE Funding improves the life expectancy of the plan.

As discussed above, public sector pension plans are failing upward: During favorable economic times, excess assets encourage benefit improvements, which increase the level and volatility of employer contributions, which in turn causes increased budgetary crises during unfavorable economic periods. A budgetary boom-and-bust cycle generates political pressure for the freezing of the pension plan and its replacement with a defined contribution plan with stable employer costs.

Under STABLE Funding, gains – whether they prove to be temporary or permanent – are set aside to improve benefit security for members and to reduce contribution risk for the employer. Only when inactive liabilities are fully immunized—when inactive benefits are backed by a dedicated high-quality bond portfolio—does the funding ratio exceed 100 percent, reduce employer contributions, and invite benefit improvements.

Therefore, STABLE Funding prevents the boom and bust cycle that has been fatal to other public plans.

- STABLE Funding is within the authority of the plan board.

Investing is clearly within the authority and responsibility of the board. Moreover, the board is responsible for the “actuarial competency” of the plan under California Proposition 162. It is clearly within the board’s authority and responsibility to determine that STABLE Funding is prudent, protects the solvency of the plan, and is in the best long-term interests of plan members and their employers.

- STABLE Funding is based on proven financial techniques.

STABLE Funding relies on matching the maturities of a bond portfolio with a stream of projected benefit payments. This technique has been used in the insurance industry for the better part of 100 years. It does not depend on exotic investments and derivatives.

Of course, nothing of value comes without a price. STABLE Funding is no exception.

- STABLE Funding costs money.

As discussed earlier, certainty costs money. If more benefit security is provided for members, and more contribution certainty is provided for the employer, there must be a cost. In fact, there is: Over time, employer contributions with STABLE Funding will probably be higher than under the traditional funding approach.

Consider Graph 8 below. In Graph 8 we plot the accumulated employer contributions to the plan for the next 50 years assuming the returns of the past 50 years are repeated in the future. This is the scenario shown in Graphs 5 through 7 above. The blue line shows the accumulated contributions under traditional funding and investment, and the red line shows the contributions under STABLE Funding.

We note in Graph 8 that—in most, but not all years—the total employer contributions to date are higher with STABLE Funding than with traditional funding and investment.

The reason for the higher cost under STABLE Funding is clear: As inactive liabilities are immunized, more plan assets are invested in bonds. While these bonds increase the security of benefits to retirees and provide the employer with contribution stability, their returns are usually projected to be lower than the returns on stocks, on average. Therefore, overall investment returns are likely to be lower under STABLE Funding, so aggregate employer contributions are ultimately higher.

However, there is an important issue of timing: The investment in bonds and the decrease in investment earnings occur only when there is excess funding. It is excess assets – assets over the actuarial accrued liability—that are used to invest in bonds and

provide security and stability. Should the investment markets become poor, these assets are converted back to a balanced asset mix in the general asset portfolio.

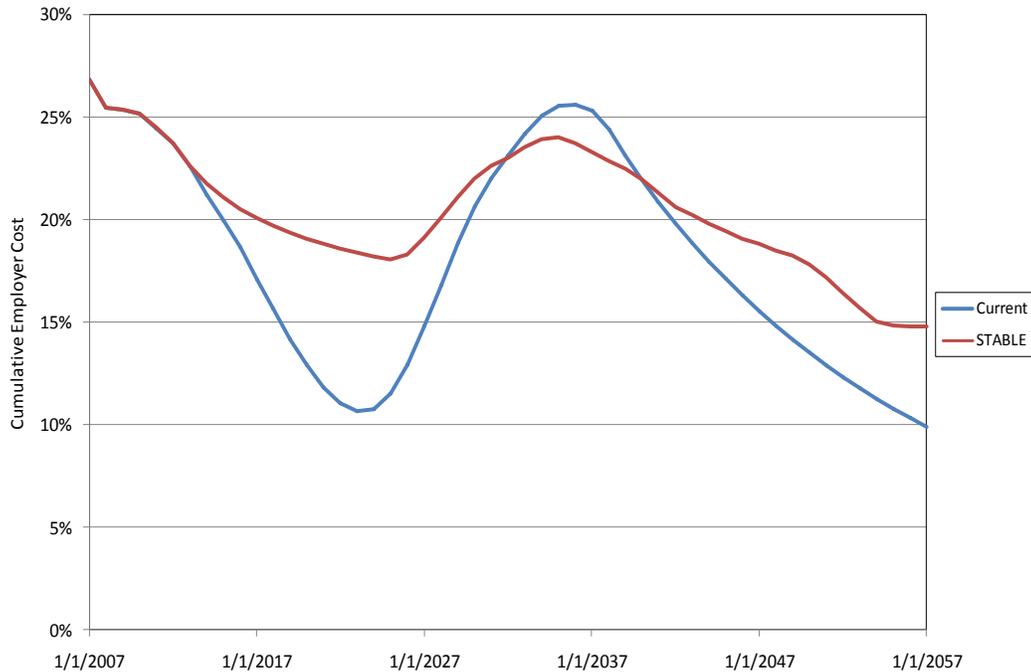
Therefore, the additional cost arises only if and when the employer can afford it—when the plan is overfunded and there would be low or no employer contribution.

- STABLE Funding restrains benefit improvements.

By holding the plan’s funding ratio to 100 percent or below, STABLE Funding prevents the perception of an “overfunded” plan with “excess” assets. The operation of STABLE Funding takes excess assets and uses them to improve benefit security and costs stability, rather than to improve plan benefits.

Consequently, STABLE Funding is best employed by mature plans—plans in which the benefit levels provide sufficient retirement income to career employees and do not represent a competitive disadvantage in hiring relative to other employers. A review of retirement adequacy can determine if a plan fits this description.

Graph 8
Comparison of Accumulated Employer Contributions: Last 50 Years of Returns
The horizontal axis is years; the vertical axis is cumulative employer contributions as a percentage of pay.



- STABLE Funding may pit the retirement board against the employer and employee representatives.

Adopting and maintaining STABLE Funding is a significant policy decision. It prioritizes the long-term future of the plan above short-term considerations such as labor

negotiations and the desire by members for benefit increases. Accordingly, the board may find itself in the uncomfortable position of being perceived to be blocking benefit improvements.

While the arguments for adopting STABLE Funding are very strong, the pressure on the board to relent and to declare excess assets available for benefit improvements will be strong as well. The board will have to prepare itself for this eventuality.

- Matching of benefit and bond cash flows may not be perfect.

It may be impossible to find bonds in exactly the right denominations and with exactly the right maturities to match benefit cash flows precisely. This typically results in holding somewhat more bonds than are theoretically needed to immunize the inactive benefit stream, producing some loss of expected return from the excess bond holdings.

This is an implementation issue that should be discussed with the plan's investment advisors.

- Bonds may be bought and sold at inopportune times.

As plan assets increase and the funding ratio increases over 100 percent, the plan will be buying bonds for the immunized portfolio. Conversely, when the funding ratio drops below 100 percent, bonds will be sold as assets are moved from the immunized portfolio to general assets. If these trades are handled mechanically, the plan could be buying bonds when they are expensive and selling them when they are cheap.

Again, this is an implementation issue that should be discussed with the plan's investment advisors. Under any circumstances, the actual timing of bond purchases is a tactical issue best left to the board and its investment advisors.

- Investment performance may appear to be poor relative to peer funds.

When the funding ratio exceeds 100 percent, the plan will have a large allocation to bonds for the immunized portfolio. As noted above, when fully immunized the bond allocation could approach 75 percent. This asset allocation will be much more conservative than most public sector plans, and plan performance could appear to be poor relative to other plans when equity returns exceed bond returns.

This need not be a problem. As long as all the stakeholders agree that the investment policy is oriented toward securing benefit promises and stabilizing employer costs, the reduction in investment returns will be regarded as an appropriate trade-off for security and stability. At this point—when assets have grown and the funding ratio exceeds 100 percent—the plan is more like an insurance company than a traditional public sector fund.

Questions and Answers

The above discussion of STABLE Funding has been long and technical. Let's try to summarize the basic points in a series of questions and answers.

- What is STABLE Funding?

STABLE Funding is the use of assets in excess of a pension plan's actuarial liability to guarantee retiree benefits and stabilize employer contributions.

- How does STABLE Funding work?

When assets exceed the actuarial accrued liability, the excess assets are invested in a portfolio of bonds with maturities and durations based on the projected benefit payments to inactive members. Retired member benefits are secured by high quality bonds. Moreover, the return on such a portfolio of bonds is very predictable, so investment returns on plan assets become more predictable and employer contributions are more predictable.

In addition, the assets in the immunized portfolio are available to compensate for market downturns and maintain a funding ratio of 100 percent, serving to further stabilize employer contributions.

- Why use STABLE Funding?

STABLE Funding prevents the boom and bust cycle that has plagued public sector pensions. In the past, excess assets have been used to increase benefits, which in turn increases the likelihood and severity of a future fiscal crisis when investment markets decline.

Instead, under an STABLE Funding regime, excess assets are not excess at all; they are used to increase benefit security and reduce contribution risk, improving the sustainability of the plan.

- Who will benefit from STABLE Funding?

Clearly, the employer will benefit from STABLE Funding by having a more stable and budgetable contribution obligation. Among the employees, current retirees will have their benefits backed by a high-quality bond portfolio, providing added security. Active members can look forward to the possibility of such protection when they retire.

Possibly the biggest beneficiaries of STABLE Funding are future generations of employees: STABLE Funding will increase the likelihood that they will be covered by the current defined benefit pension plan.

- Who stands to lose from STABLE Funding?

Current active employees may feel that they have lost the opportunity to receive increased benefits from excess assets. Some employee groups have grown accustomed to periodic benefit increases from overfunding, and this pattern may be difficult to break. Considerable pressure may be brought to bear on the board by both employee groups and employers.

We would argue, however, that benefits should be improved when the improvements meet a proven need and solve an existing problem, not when there appear to be excess funds available. (For example, it is sometimes the case that members who have been retired for some time have fallen behind in purchasing power, and an ad hoc COLA is perceived as necessary.) However, as we have learned in recent years, overfunding is often more apparent than real, and today's surplus may turn into a deficit tomorrow. Asset surpluses may be best used to decrease risk.

- Will asset allocation be affected?

Clearly, as noted above, if the plan becomes overfunded and STABLE Funding is in force, the allocation of plan assets to fixed income securities will increase, perhaps greatly.

The asset allocation process may also change, with the immunized assets allocated to guarantee all or a portion of inactive member benefits, and the general fund portion allocated along the efficient frontier in the usual way. It is unclear whether or not the total portfolio will be on the efficient frontier from an asset-only perspective.

- Are there other approaches?

There are certainly other methods to deal with volatility. For example, a separate reserve could be created, increasing to 20 percent or more of total assets. The reserve assets could be invested in fixed-income securities, in relatively stable equities, or in any other class of assets that would reduce volatility and stabilize employer contributions. There would be nothing wrong with such an approach.

However, the STABLE Funding technique described here offers some unique advantages. First, asset allocation and liabilities are directly linked. Assets are sequestered to back up retiree benefit promises, improving retiree security. Second, the liabilities secured in this way have a higher nominal value, keeping the plan funding ratio at 100 percent and stabilizing employer cost. Third, the operation of STABLE Funding is largely automatic: The board does not have to make annual decisions about the level of a reserve.

Next Steps

The plan staff and investment consultant have reviewed and contributed to the discussion of the STABLE Funding concept. The next critical step is to determine the board's interest in pursuing this concept further. If the board wishes to proceed, further steps could include the following.

- Conduct Further Studies

The analysis and graphs in this article are based on a spreadsheet projection of future plan costs. To answer questions raised by the board, staff, and investment consultant, and to flesh out policy and implementation details, more extensive studies may be required.

- Involve Stakeholders

STABLE Funding can succeed only with the support of all the major stakeholders in the plan. Accordingly, as early as possible in the process, we should introduce and discuss the concept with employers and active and retired member representatives to identify and address questions and concerns.

- Develop Proposed Policies

Funding and investment policies will be needed to implement STABLE Funding. It is important that such policies be thoroughly considered, reviewed, and in place before an asset surplus emerges. Such policies will cover issues such as liability valuation, funding, investment strategy, asset allocation, the calculation of reserves, and manager structure and selection for the STABLE portfolio.

- Implementation

If the board approves, the investment policies implementing STABLE Funding can be drafted, distributed to consultants for comment, and approved. As the plan approaches full funding, the plan board and staff will continue to confer with the actuary and investment consultants regarding implementation considerations and the practical application of STABLE Funding.

Conclusion

STABLE Funding is an approach that combines investment policy and actuarial funding policy in an integrated mechanism designed to improve plan governance and longevity. It has aspects that are likely to appeal to members, employers and boards. However, all of these groups will have questions and concerns that will have to be taken seriously and addressed fully before STABLE Funding can be adopted and implemented.

In preparing this paper I have benefited greatly from the insightful review and comments by my colleagues and friends Graham Schmidt, Greg Stump, Hugo Wildmann, Annette St. Urbain, and Nancy Calkins.

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