PAPERS PENNSYLVANIA ASSOCIATION OF PUBLIC EMPLOYEES RETIREMENT SYSTEMS

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The mission of the Pennsylvania Association of Public Employee Retirement Systems (PAPERS) shall be to encourage and facilitate the education of its membership in all matters related to their duties as fiduciaries overseeing the assets of the pension funds with which they have been entrusted. It will be PAPERS' primary purpose to conduct an annual educational forum that provides the basis for improved financial and operational performance of the public employee retirement systems in the State. PAPERS will function as a central resource for educational purposes and act as a networking agent for all public plan staff and board members.

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In This Issue

Actuarial Funding Ratios: What Do They Really Mean?

By Greg Stump, FSA, of EFI Actuaries and PAPERS Advisory Committee Member

As a consulting actuary for public pension plans, I often discuss funding ratios. I recently had a conversation with a concerned client who had witnessed a decline in the funding ratio of her pension plan from 95% to 82% over a two year period. Her first question was: Should I be concerned?

It got me thinking – are actuaries adequately communicating the meaning of that ratio? If it were less than 100%, is it cause for alarm? If over 100%, can the surplus be spent on benefit improvements? The answer in both cases is "not necessarily".

A funding ratio is a basic arithmetical problem: assets divided by accrued liabilities. Or is it? The numerator is simply the bottom line on your trust statement, with some possible adjustments for smoothing of gains and losses (which will not be dealt with herein). It's the other part of the quotient that's not so straightforward.

I have a friend to whom I owe $20 – that's a reasonably reliable number. What if the debt is contingent upon a wager, and I *may* owe them the cash? What if there are hundreds of friends and hundreds of wagers? How much money is really owed? Now we're getting closer to the world of pension actuarial mathematics. With thousands of retirees who are currently or who may be receiving pension benefits at some time in the future, and money in the trust fund which will grow to eventually pay for all of those benefits, the certainty of that debt goes by the wayside. There is clearly an obligation, but for how much?

Accrued liabilities are present value calculations (based on past service only), considering a multitude of assumptions – retirement, termination, disability, death, asset returns, inflation, spousal benefits, future medical costs, etc. Actuaries don't know for certain when people will retire and die, although we do go through painstaking efforts to come up with reasonable estimates of these events (on an aggregate basis). An accrued liability of say, $100 million, is a *best estimate* of the present value of benefits to be paid (based on past service). It is only accurate if all assumptions are exactly met – an impossibility (which incidentally gave rise to the expression "the actuary is always wrong").

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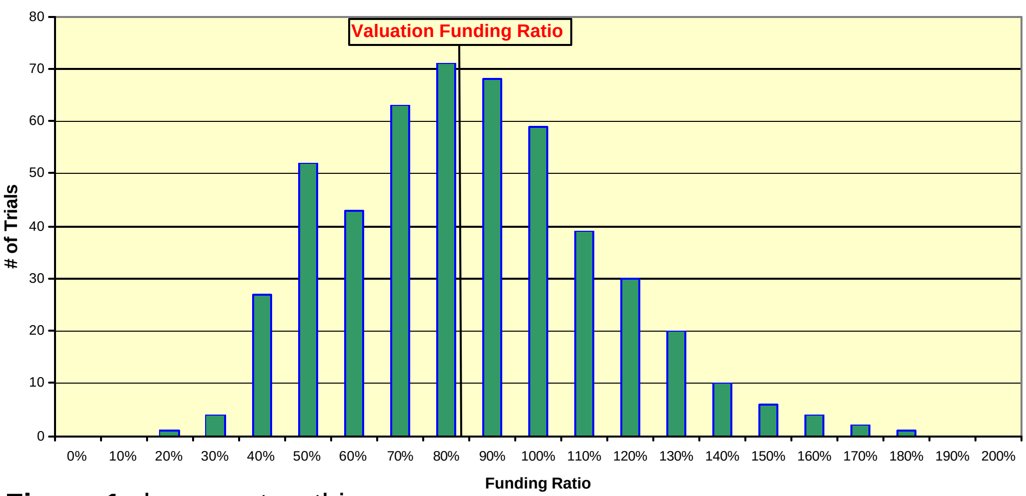
Actuarial Funding Ratios *(continued from page 1)*

So how accurate is that funding ratio? The funding ratio is one number based on a great many possibilities. It is neither certain nor permanent. We are talking about *future* events here, remember. Going back to my concerned client, I put together for her the following charts to demonstrate both the uncertainty and the non-permanence of the funding ratio in general.

Figure 1: Distribution of Funding Ratios



This graph is based not on just one fixed assumed asset return, but *varying* future return. In other words, it is based on the realistic and historically observed volatility of the capital markets. Based on many trials of simulated asset returns, 500 separate funding ratios are determined instead of one. The frequency of each ratio is then recorded.

Figure 1 shows us two things:

1. the funding ratio can be expressed as a *range* of possibilities rather than one number, and
2. the valuation funding ratio is near the median of that range, which indicates that the return assumption is probably not unreasonable overall.

Figure 2: History of Funding Ratios

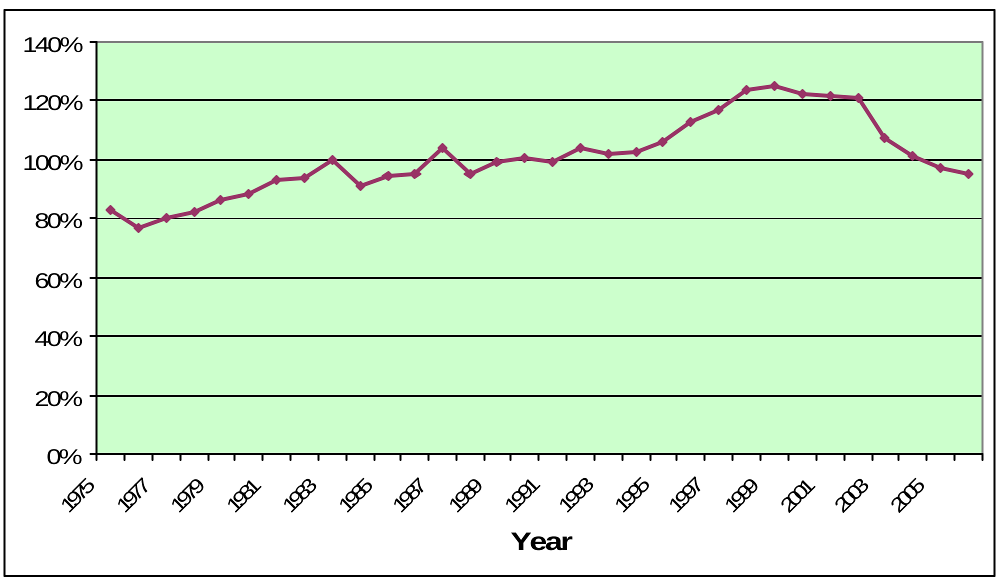


Figure 2 shows the 30-year history of the funding ratio for a large public pension plan. Variation occurs annually, and ratios around 80% and 120% are part of the natural life cycle of the plan. Ratios will vary over time based on asset returns, benefit enhancements, changes in actuarial assumptions, and demographic experience. The first two generally have the most significant effects. The point here is that whatever your ratio is today, it probably won't be there tomorrow.

We must recognize the variability and lack of certainty in funding ratios and actuarial calculations in general. Don't get too excited if your ratio is over 100% or too distressed if it is lower than 100%. I don't mean to imply that there is never a cause for concern - there are many situations that can create major problems. One number just doesn't adequately tell the story. It is important to first understand how you got where you are, be it a 65% funding ratio, 125%, or somewhere in between. Even more crucial is to figure out where you're going through forecasting and stochastic analysis, short term as well as long term. It is only then you can begin to understand and better manage your retirement benefits plans.

From the PAPERS Executive Director

PAPERS has completed its first successful year of operation. We have received approval from the IRS to operate as a 501(c)6 non-profit tax free organization. We had 36 Participating members, 33 Associate members and one Affiliate member as of the end of our first year. We held six Board meetings and had a very successful 2nd Annual Forum in April of 2006. We also produced and distributed two newsletters.

I would like to invite you to attend the 3rd Annual PAPERS Forum to be held April 11th and 12th at the Holiday Inn Grantville just north of Harrisburg on I-81. We have a very interesting agenda planned to cover many current topical issues and investment related topics. A brief summary of the agenda is included on page 6 of this newsletter. The registration fee is only $95.00. PAPERS membership is also $95.00 and includes one free admission to the forum. Lodging at the Holiday is $89. + tax per night.

Because we are a new organization and are working hard to increase our membership and give more local retirement boards an opportunity to see what we have to offer, scholarships are available for those new trustees who have not had a chance to budget for membership or conference attendee fees. If you're interested in receiving a scholarship, contact Warren Becker at IMN. His telephone number is 212-901-0572. We look forward to seeing you at the 3rd Annual PAPERS Forum in April.

Jim Perry, PAPERS Executive Director

Become a Member of PAPERS

Participating Members (public employee retirement systems) and Associate Members (corporate sponsors) can apply online at **www.pa-pers.org** or contact:

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Your Fiduciary Duties: The Five W's
(Who, What, Where, When and What Happens If You Violate Them)

By Jeffrey Clay, PAPERS Board Member and Executive Director of the Public School Employees' Retirement System (PSERS)

This is the first in a series of articles that will explore the fiduciary duties associated with the operation of public pension plans in the Commonwealth of Pennsylvania. The goal of the articles is to provide a practical explanation of the fundamental rules that govern all public pension plans in Pennsylvania and the potential consequences if they are violated.

To start, we need to understand some basic concepts. All pension plans, whether public or private, are considered to be trust funds. A person or entity creates and uses a trust fund as a way to transfer wealth or money to another, subject to certain conditions. A simple non-pension example is a trust created in a will to hold the inheritance of a minor child until the child reaches the age of majority.

In the case of a public pension plan, a trust is created by a governmental entity, e.g. state, county, city or municipal authority, to hold both the employer and/or employee contributions for the future benefit of their employees. That benefit, of course, is the promised pension, which is a form of deferred compensation for service rendered by the employees on behalf of their employer. The funds are said to be held "in trust" because certain conditions have been imposed that must be satisfied before a member can receive his or her pension.

The ones holding the money for the benefit of the members of the pension system are deemed to be trustees. Part of their job is to ensure that the trust conditions have been met prior to the payment of the benefit. The members themselves are deemed to be the beneficiaries of the trust, i.e. the ones who stand to benefit from the trust.

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Your Fiduciary Duties *(continued from page 3)*

The trust conditions that govern the amount, eligibility and the payment of the pension benefit are contained in the pension plan document. This can be a state statute, as is the case for PSERS, or an ordinance or other official action by the governmental body. The plan document can also be a combination of these documents. In addition to the terms and conditions governing the determination of and payment of the pension benefit, the plan document also usually contains language creating the trust, and describing its funding, management and administration. The plan document also includes the rules governing the investment of the plan's assets.

Typically, a pension board or board of trustees is vested with oversight of the pension plan and its assets or funds. It is these trustees that primarily owe the fiduciary duties to the members of the plan. As we will see in a future article, however, they are not the only ones who owe a fiduciary duty to the members.

What are those duties? Although others may state them differently, from my perspective they can be boiled down to two:

1. a duty of loyalty to the beneficiaries of the trust, i.e. the members of the pension plan; and
2. a duty of prudence in the management and administration of the pension plan.

We will explore the meaning and application of both of these duties in the next article.

THE BASICS OF CORPORATE GOVERNANCE

By Andrew D. Abramowitz of Spector, Roseman & Kodroff and PAPERS Advisory Committee Member

In recent years, investors have witnessed the financial collapse of corporations, both in the United States and abroad, on an unprecedented scale. Companies such as Enron, Parmalat, WorldCom, Tyco – they have become emblems of corporate fraud and director greed. Investors have lost billions in these companies, and have done so because they committed the sin of trusting a board of directors that was lying to them.

In the wake of these disasters, two words have taken a place of prominence in the investor's consciousness: corporate governance. Corporate governance refers to the procedures by which the overall behavior of company management is monitored and controlled. In short, it is a mechanism for promoting integrity among our boards by maximizing accountability for the decisions they make and the actions they take.

Although the implementation of corporate governance controls are likely to have prevented the massive frauds we have seen at the Enrons of the world, the principles underlying these measures seem obvious, simplistic even. For example, a hallmark of corporate governance is director independence standards – requiring that a certain percentage of the board members (often two-thirds) are independent and do not have a material relationship with the company. Independence can be measured by a host of factors -- including compensation received from the company, whether the director has recently served as an auditor of the company, whether the director has a family member who stands to benefit from the decisions made by the board – but they all speak to whether the board member can make decisions affecting the company and its shareholders without being influenced by improper considerations.

Another frequently used corporate governance mechanism is the creation of board committees. Committees that are specifically devoted to matters of compensation, auditing, and public policy, to name a few, can more diligently and thoroughly take responsibility for those sensitive issues without consuming the resources of the board on the whole.

These are only a few of the numerous ways in which a company can control its management and prevent insiders from being corrupted by unchecked power.

Ultimately, good corporate governance measures do not merely help investors sleep better at night. Studies repeatedly demonstrate that they impact the bottom line, and that long-term shareholder value is greatly enhanced when a company has in place strong corporate governance measures designed to protect the company from wrongdoing and to protect the real owners of the company, its shareholders.

The U.S. Economic Outlook for 2007

By David H. Resler, *Managing Director and Chief Economist at Nomura Securities International, Inc.*

Overview

The US economy turned markedly cooler in 2006 as a deep slump in the home-building sector offset continuing strength in consumer and business spending. Growth in real output averaged just 2.3% in the middle two quarters of 2006. Even though activity appears to have accelerated in the final quarter, worrisome signs persist that the housing slump could engulf a larger swath of the overall economy. Owing primarily to the direct effects of the contraction in home-building, a sub-normal growth looks likely to continue through at least the first half of 2007. While the pace of activity looks likely to improve gradually as the impact of the housing contraction diminishes, real output growth in the year ahead is forecast to remain below the U.S. economy's long-run potential (~ 3% to 3.4%) throughout the coming year.

Inflation, which was temporarily elevated by a spike in energy costs, abruptly reversed course in the fourth quarter. Indeed, the 2.2% decline in the CPI during the fourth quarter was the largest quarterly decline since 1949! Abstracting from the extraordinary volatility of energy (and food) prices, "core" inflation remained at uncomfortably high levels throughout most of 2006. Much of this acceleration in price pressures appears to be the result of a supply/demand imbalance in the rental housing market. However, as that imbalance subsides (a response to higher rents and soft demand in the resale market), core inflation (measured by the core deflator for personal consumption expenditures) is likely to retreat toward the upper end of the Federal Reserve's 1% to 2% "comfort zone."

Interest rates and monetary policy

With the economy forecast to grow at a pace that is below its "potential," pressures on "real" interest rates are likely to remain muted. As the economy cooled in 2006, long-term rates edged below the equilibrium levels associated with sustained steady-state growth. Indeed, a structural shift in the global supply and demand for credit may also have lowered equilibrium real rates. In particular, as a larger share of world output has shifted to the labor-intensive and high saving emerging economies of Asia, global savings has risen more rapidly. Meanwhile, the advanced capital-intensive economies require less additional plant and equipment to fulfill their smaller share of global output. Both shifts have contributed to the "conundrum" of seemingly low long-term global interest rates.

Nonetheless, the business cycle will continue to generate fluctuations around the new equilibrium. As forecasted economic growth moves closer to potential, long-term interest rates are likely to edge up slightly from current levels.

Consequently, we continue to expect long-term interest rates to climb gradually to levels consistent with "equilibrium real rates," which we now believe to be somewhat lower than their 2.5% to 3.0% historical average. With core (and long-run) inflation retreating into the 1.5% to 2.0% range, cyclical pressures are forecast to push up nominal long-term rates, represented by the yield on 10-year Treasuries. Though the 5.0% threshold could be briefly breeched, we forecast the 10-year yield will edge gradually higher over the course of 2007 to reach a quarterly average peak of about 4.805 in the fourth quarter.

The Federal Open Market Committee (FOMC) suspended its two-year tightening cycle in August when it refrained from raising the federal funds target after 17 consecutive rate hikes. This policy "pause" now looks likely to continue through the coming year. With growth hovering just below its long-run potential while inflation edges gradually lower, there would be insufficient "urgency" for corrective policy action. Consequently, we expect the federal fund rate to remain at its current setting of 5.25%. However, as inflation recedes, the resulting increase in "real" rates could eventually convince policymakers that one or more rate cuts will be needed to keep policy near "neutral."

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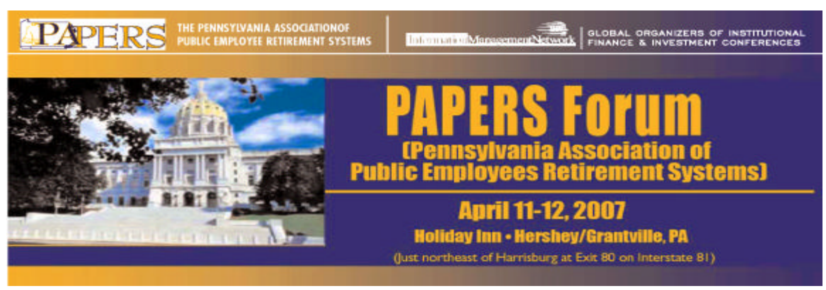
Information Management Network and PAPERS are proud to announce the third annual **PAPERS Forum**, which also serves as the annual meeting for PAPERS. The Forum, scheduled for April 11-12 at the Hershey/ Grantville Holiday Inn at Exit 80 of I-81, is designed to provide public pension plan administrators, staff and board members with a comprehensive program covering essentials of pension fund operations and investment management. Critical issues such as other post employment benefits (OPEB), employee contributions and funding gaps are going to be examined and discussed.



This year's program will feature several high-profile industry experts including Ronald J. Ryan, Chief Executive Officer for Ryan ALM, Inc. Ryan has been trumpeting America's pension crisis for a number of years now and he will provide a refreshing and even shocking look at the current dire condition of the retirement system. Also speaking will be Chester Spatt, Chief Economist and Director of the Office of Economic Analysis, US Securities and Exchange Commission, and who is also Mellon Bank Professor of Finance, Tepper School of Business, Carnegie Mellon University. Spatt will discuss issues of concern to all pension investors, such as the impact of executive misbehavior that leads to corporate scandals as well as the importance of prudent investment decision making concerning fees and the use of indexing. Finally, Keith Brainard, Research Director, National Association of State Retirement Administrators, will provide a comprehensive overview of the pension fund landscape in the US in terms of operating and investment trends. He will look specifically at how Pennsylvania retirement systems compare to public funds in other states.

For updates on the program agenda as well as registration information, you can go to the Information Management Network web site at www.imn.org, or you can call the conference producer, Albert S. Neubert, at (845) 246-6168.