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.

Summer 2007 (Vol. 2, No.3)

In This Issue

Fall PAPERS Workshop in Pittsburgh

Expanding its mission to facilitate education for persons affiliated with Pennsylvania's public pension plans, PAPERS is pleased to announce plans for a half-day educational workshop to be held Wednesday, September 26th at the Holiday Inn Greentree in Pittsburgh. Special thanks to the following PAPERS Associate Members who are serving as lead sponsors for the workshop: Allegiant Asset Management, Dow Jones Indexes, Federated Investments and Standard & Poor's.

All PAPERS Associate and Participating Members are encouraged to attend; PAPERS membership is required for registration. Each Participating Member system is entitled to one free admission to the workshop. Additional Participating Member registrations are available at just $45 per attendee. The workshop registration fee for Associate Members is $750 per attendee. A registration form is on page 8.

Tentative Workshop Schedule

11:30 AM — **Registration**

12:00 noon — **Lunch**

1:00 PM — **"The Proposed Statewide Municipal Retirement System"**
Panel Members:
- ***James Allen***
  Executive Director of the PA Municipal Employees' Retirement System
- ***Mark Flaherty***
  Controller, Allegheny County
- ***James McAneny***
  Acting Executive Director, Public Employee Retirement Commission
- ***The Honorable Jane Orie***
  PA State Senator from the 40th Senatorial District

2:00 PM — **"The State of the U.S. Economy"**
Speaker - ***Philip J. Orlando***, Federated Investors

2:45 PM — **Refreshment Break**

3:00 PM — **"Amplified Alpha Strategy 130/30"**
Small Caps: They're Not Dead Yet
Speaker – ***Gordon A. Johnson***, Allegiant Asset Management

3:45 PM — **"Indexing 101"**
Moderator - ***Jim Perry***, PAPERS Executive Director
Speaker – ***James Brophy,*** Standard & Poor's
Speaker – ***Jim Zauner***, Dow Jones Indexes

(more workshop information on pages 2 & 7)

From the PAPERS Executive Director

As we enter the dog days of summer I feel like kicking back and enjoying the air conditioning. However, always in pursuit of our mission we at PAPERS are planning a fall pension workshop to be held at the Holiday Inn -Greentree near Pittsburgh on September 26th.

We plan to do a half day program starting with lunch and wrapping up by 5:00PM. The hot topic from the 3rd Annual Forum this past spring will be explored again this fall as we do a panel discussion on the issue of a *Consolidated Statewide Municipal Retirement System*. PAPERS has also engaged three other outstanding speakers to present additional timely topics to the pension community; see page 1 for titles and page 7 for speaker biographies.

The article on page 3 in this newsletter entitled "Returns in Both Worlds" provides a good strategy for improving returns while lowering risk. I hope you find these articles stimulating. We look forward to your feedback on the types of articles you would like to see and your opinions as to their value.

Recruiting of new members is going much slower than we had hoped so any help from the current membership would be greatly appreciated.

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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PAPERS
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Harrisburg, PA 17112
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E-mail: perryja1@comcast.net

Convenient Workshop Location

Holiday Inn Greentree

401 Holiday Drive, Pittsburgh, PA 15220
Hotel Front Desk: 1-412-9228100

Located just off I-279 between downtown Pittsburgh and the International Airport

Recognizing our Workshop Lead Sponsors

Returns in Both Worlds

By Sabrina Callin[1]

An innovative solution can help pension plans better match their assets and liabilities with an equity strategy that incorporates bond-based alpha.

Pension plans face a difficult balancing act when trying to match assets and liabilities. While their liabilities increase with falling rates, their assets can decrease in the same environment, especially with large equity exposures. Balancing the demand for attractive returns with the need to meet liabilities has led many plans to adopt innovative new strategies in recent years. Among the more recent innovations are portable alpha strategies which simultaneously provide full exposure to both equities and interest rate sensitive investments, and a new approach to equity investing known as Fundamental Index™ investing that may help plans improve their return on assets at a lower level of risk relative to their liabilities.

An Innovative Solution

Rob Arnott, Jason Hsu and their team at Research Affiliates pioneered the Fundamental Index™ approach in 2005 with the introduction of the Research Affiliates Fundamental Index (RAFI™). While most equity market indices weight stocks in the index based on their market capitalization, the RAFI approach uses fundamental measures of a company's size, such as sales or cash flow, to first select stocks for the index and secondarily to weight each stock in the index. Capitalization-weighted indices naturally overweight every stock trading above fair value and underweight every stock trading below fair value, creating a structural drag on returns. The goal of a Fundamental Index strategy is to avoid this structural drag, thereby producing higher returns than capitalization-weighted indices.

Why use a fundamental index?

Analysis by Research Affiliates found that in the past 80 years, the stock with the largest weight in cap-weighted indices beat the average stock over the next 10 years only about 20% of the time. In other words, 80% of the time, the number one stock did not outperform the average stock. As a result, investors using cap-weighted indices may have a major share of their money in overvalued companies, creating a drag on investment results when these equity prices revert towards their fair value.

One way to avoid the cap-weighted performance drag is to create a portfolio based on a company's "economic" size rather than its "market" size, In the case of RAFI, four financial metrics—sales, cash flows, book values, and dividends—determine the "economic" weighting of a company. These measures are not only distinctly different from each other, but are also highly objective, and the combination mitigates vulnerability stemming from the use of only one of the metrics. If a company does not pay dividends, its weighting is determined by averaging the other three factors.

More than Value

Some critics have branded the Fundamental Index methodology as "just another value index". However, this may be misleading. Cap-weighting doubles the weight of any growth stock trading at twice the market multiple and halves the weight of any value stock trading at half the market multiple, creating what one might call a *growth tilt in cap-weighted indexes* relative to the average stock in the market. Since the Fundamental Index approach ignores price, market cap and valuation multiples, the RAFI strategies have a measurable value tilt relative to cap-weighted indexes. RAFI is not a value index, however, as growth stocks are included in the portfolio, proportional to their economic scale.

The results compared to both value indices and other popular large cap, capitalization-weighted indexes are compelling. The table below shows the historical performance of the FTSE RAFI 1000[2] compared to the S&P 500 Index and other indexes. The excess return of the FTSE RAFI 1000 against the S&P 500 has been 2.45% per annum over the last 20 years. The FTSE RAFI 1000 has also consistently outperformed the Russell 1000 Value index, thus proving that a Fundamental Index is not

(continued on page 4)

[1] Sabrina C. Callin, CFA, is an Executive Vice President and the head of the StocksPLUS product management team, responsible for PIMCO's global portable alpha-based equity business

[2] The FTSE RAFI 1000 index is a generic version of the Fundamental Index and is part of the FTSE RAFI Index series, launched in association with Research Affiliates.

Returns in Both Worlds *(continued from page 3)*

"just another value index". These findings are not limited to the US, but have been mirrored in non-US developed markets as well.

Summary Statistics - Twenty Year Period Ended March 2007

	Ending Value of $1	Annual Return	Volatility	Sharpe Ratio	Excess Return vs. S&P 500
FTSE RAFI 1000	11.96	13.21%	13.98%	0.61	2.45%
S&P 500	7.72	10.76%	14.61%	0.42	n/a
Russell 1000	7.87	10.86%	14.64%	0.42	0.10%
Russell 1000 Value	9.69	12.03%	13.63%	0.54	1.26%
Russell 1000 Growth	5.82	9.21%	17.41%	0.26	-1.55%

Source: PIMCO and Bloomberg Financial Markets

A Portable Alpha-Based Approach

The portable alpha investment application allows investors to bring together two independent alpha engines — stock selection-based enhanced RAFI and PIMCO active fixed income management. By using total return swaps to gain exposure to the enhanced RAFI portfolio rather than buying the individual stocks, an investor can gain exposure to the enhanced RAFI and simultaneously invest their capital in an actively managed fixed income portfolio.[3] One such approach involves investing the investor's capital in an actively managed "core plus" fixed income portfolio. The goal of the fixed income portfolio is to outperform the LIBOR-based financing cost of the total return swaps, thus adding to any equity market outperformance without a material increase in risk.

This combined strategy incorporates two independent investment approaches to add value – or so called alpha – to stock market returns:

- Research Affiliates' Enhanced Fundamental Index approach, which attempts to provide superior returns relative to capitalization-weighted indexes
- Active fixed income management, which is intended to provide incremental return over and above the LIBOR-based swap cost

A portable alpha-based approach may benefit from "alpha stacking" with the aim of achieving strong equity market excess return potential with unique diversification and risk reduction benefits.

Improving Risk and Return Relative to Liabilities

Combining the RAFI approach with active bond management and portable alpha expertise has the potential to produce a compelling equity strategy that endeavours to outperform capitalization-weighted stock indices over the long term and improve the match between pension liabilities and equity assets.

The fixed income alpha engine benefits from the expected higher return and yield from a "core plus" bond portfolio relative to money market rates across most market environments. However, the incremental returns are likely to be highest when interest rates are falling – the same time that pension plans' liabilities are increasing. It is also true that the high expected correlation between the resultant strategy's excess returns and pension plan liabilities will likely result in a meaningfully lower tracking error relative to liabilities than is typically associated with an equity investment.

Strong excess return potential during weak equity markets

By incorporating both the Fundamental Index approach and a fixed income source of alpha in an equity strategy, the resultant portable alpha strategy should add value across most types of equity markets, with particularly strong potential excess returns during weak equity markets. The Enhanced Fundamental Index process may underweight stocks that experience the greatest correction during a declining equity market. Similarly, fixed income portfolios may benefit from a "flight to quality" and falling interest rates; historically stocks and bonds have exhibited sharply negative correlations during weak equity markets. Combining the two can help mitigate the negative equity market returns that have such a large overall portfolio impact given most investors' large allocations to equities.

(concluded on page 5)

[3] *By entering into the swap transaction, the investor receives the total return of the RAFI index in exchange for the payment of a short-term LIBOR-based financing rate.*

Returns in Both Worlds *(continued from page 4)*

Potential Additional Diversification Benefits

In addition, RAFI excess return and the return over LIBOR of the fixed income portfolio may add important diversification benefits due to their lack of correlation with one another, with the equity market and with the excess returns of other equity strategies in a portfolio. The end result, two sources of alpha without any material expected increase in risk relative to the risk (volatility) of typical cap-weighted indexes such as the S&P 500 and the potential to reduce tracking error to liabilities.

Past performance is no guarantee of future results.
Swaps are a type of derivative in which a privately negotiated agreement between two parties takes place to exchange or swap investment cash flows or assets at specified intervals in the future. There is no central exchange or market for swap transactions and therefore they are less liquid than exchange-traded instruments.

The FTSE RAFI US 1000 Index is part of the FTSE RAFI Index Series, launched in association with Research Affiliates. As part of FTSE Group's range of non market cap weighted indices, the FTSE RAFI Index Series weights index constituents using four fundamental factors, rather than market capitalization. These factors include dividends, cash flow, sales and book value. The FTSE RAFI US 1000 Index comprises the largest 1000 US-listed companies by fundamental value, selected from the constituents of the FTSE US All Cap Index, part of the FTSE Global Equity Index Series (GEIS).

The FTSE Research Affiliates Fundamental Indexes ("RAFI") are calculated by FTSE International Limited ("FTSE") in conjunction with Research Affiliates LLC ("RA"). All rights and interests in the FTSE RAFI indexes vest in FTSE. All rights in and to the RA fundamental weighting methodology used in the calculation of the FTSE RAFI indexes vest in RA. "FTSE" is a trademark of the London Stock Exchange Plc and The Financial Times Limited and is used by FTSE under license. "Research Affiliates", "Fundamental Index" and "RAFI" are trade marks of RA. Except to the extent disallowed by applicable law, neither FTSE nor RA shall be liable (including in negligence) for any loss arising out of use of the FTSE Research Affiliates Fundamental Indexes by any person.

The Standard & Poor's 500 Index (S&P 500) is an unmanaged index of U.S. companies with market capitalizations in excess of $4 billion. It is generally representative of the U.S. stock market.

The Russell 1000 Index consists of the 1,000 largest securities in the Russell 3000 Index, which represents approximately 90% of the total market capitalization of the Russell 3000 Index. It is a large-cap, market-oriented index and is highly correlated with the S&P 500 Index.

Russell 1000 Value Index measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 1000 Growth Index measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

Planning Ahead

PAPERS Forums have already been scheduled for 2008 and 2009!

Reserve these dates now – **April 21-23, 2008** and **April 15-17, 2009** - and plan to attend these conferences of public employee retirement systems in Harrisburg. PAPERS will be returning to the downtown Hilton Hotel for the conferences in both of these years. More details later.

Free Service Available to PAPERS Members

PAPERS Participating Members (retirement systems and fund administrators) can get one-year free access to *Public Pensions Online*.

This is yet another important reason to become a PAPERS member. Simply go to www.publicpensionsonline.com/member/papers.html and fill out the requested information (name, email, retirement board, etc.). Once the application is submitted, an account will be activated and you will receive an email with your personal login information.

The Gazbees are Coming!

Part I of a series by Greg Stump, EFI Actuaries & PAPERS Advisory Committee Member

By now, we have all heard about GASB 45 (some of us ad nauseam). Based on some of the headlines, you might think that GASB 45 is an exotic virus, a vicious man-eating creature, or some other dangerous unknown. Some have even tried to "kill the beast" (see Texas).

So who or what are GASB and OPEB? The Governmental Accounting Standards Board (GASB) has been issuing accounting statements for over twenty years, including those which pertain to pension benefits. Statements 43 and 45 deal with Other Post-Employment Benefits (OPEB), which primarily consist of (but are not limited to) retiree healthcare benefits. The "Other" refers to <u>retirement</u> benefits not provided by a pension plan.

Accounting for OPEB is not a new concept, just relatively new for public sector entities. The benefits are generally deemed to be accrued during working years (an employee exchanges service now for a benefit later), which is the rationale for accounting for them as such. Figure 1 is a useful illustration that demonstrates why many feel that this type of accounting is crucial.

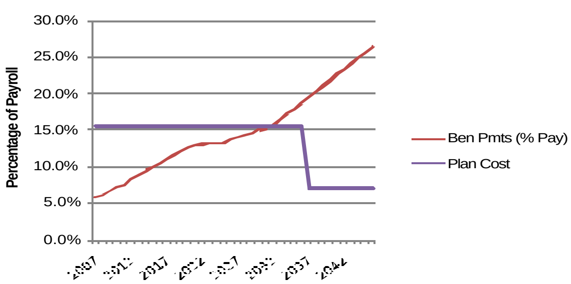


Figure 1: OPEB Benefit Payments versus Actuarial Cost

What we see in this graph is an actual projection of retiree healthcare costs for a small plan on two bases. The diagonal line represents the expected benefit payments to retirees and beneficiaries over a forty year period of time. The "step-down" line is the projected accounting cost of those benefits over the same period of time. The story is "You can pay now or pay later, but if you wait until later will you be able to pay?"

So how much are these OPEBs really worth?

Let's say a healthcare premium for single coverage is $800/month. If this is paid for say, 25 years of retirement, it amounts to $240,000 in benefit payments. Of course there are other factors, such as differing retirement ages and life expectancies for example. The most significant of these variables is future medical inflation.

If the person in this example is expected to retire 20 years from now, the premium is almost certain to be more than $800 (not to mention the impact of implicit subsidies, which is a topic for a future article). Assuming that healthcare costs will increase by 5% in each future year (which is somewhat optimistic, as near term medical inflation is almost universally believed to be closer to 10%), about $1.2 million will be paid for these benefits in total. If actual healthcare inflation is instead 6% per year, the total of the payments would be almost $1.7 million.

These are big numbers by most standards, but they do ignore the time value of money ($1.2 million now is not the same as $1.2 million in a few decades) and many other uncertain future events. The time value (i.e. expected return on assets) can also be significantly affected by how the benefits are funded (another topic for a future article).

The cost of OPEB is usually comparable to the cost of pension benefits, and often somewhat lower, but the biggest issue that plan sponsors have been dealing with is the handling of "unfunded liabilities" that are associated with employees who have already worked for ten or twenty years. Fortunately, there is some flexibility in amortizing these liabilities.

What to do as a plan sponsor

A helpful summary of Statement 45 can be found on the GASB website at http://www.gasb.org/st/summary/gstsm45.html, but here are the basics:

1. Figure out to which fiscal year the Statement first applies for you. This is based on your total revenue, and can be as early as 2007 and as late as 2010 (the higher the revenue, the earlier the implementation).

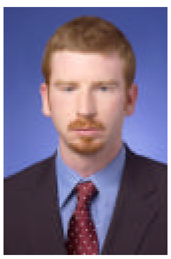
(continued on page 7)

The Gazbees are Coming *(continued from page 6)*

2. Determine what OPEBs you are providing. This will most generally be retiree medical, dental, and life insurance (if not provided through your pension fund), but can also include benefits such as unused sick leave conversion.
3. Hire an actuary (through a Request for Proposal or other source) to complete an actuarial valuation of these benefits. This will be very similar to a pension valuation in many ways, and should provide roughly the same information.
4. Determine funding and accounting policies. There is no requirement by GASB or otherwise to pre-fund OPEB; however, there may be advantages in doing so. The results of your valuation should include enough information to help you make necessary decisions on funding as well as accounting (e.g. how to amortize unfunded liabilities).

There is a great deal of complexity in OPEB accounting, but most of the really complicated aspects are in the actuarial calculations. It is important for plan sponsors to understand not only the cost of benefits, but the implications of their decisions and the risks involved. Stay tuned for more OPEB information in future articles.

Meet the Speakers for Sept. 26th Pittsburgh Workshop



James Brophy is a senior director of index analysis and management with Standard & Poor's. James sits on the S&P U.S. Index Committee, the S&P Global 100 Committee and the S&P/Citigroup Global Property advisory panel, responsible primarily for day-to-day management of the S&P 500 and oversight of the U.S. index management team. He also makes editorial contributions to index research. James has been with Standard & Poor's since 1999. He has held various positions (beginning at the Committee on Uniform Security Identification Procedures) until joining the index services group in 2002, where he was initially tasked with managing the S&P MidCap 400 and REIT Composite indices. James was educated at the State University of New York at Albany and at the University of Chicago.

Gordon A. Johnson leads Allegiant's Small Cap Core Equity investment team and also manages separate portfolios in this style. He was President and Chief Investment Officer of Allegiant Investment Counselors, Inc. (AIC), which merged with Allegiant Asset Management on January 1, 2006. He joined AIC in 1985, started the Small Cap Core product in 1993 and was named President and CIO in 1997. In addition to providing investment direction and managing multiple portfolios, he maintains overall responsibility for staff and operations in the St. Louis, Missouri office. Gordon holds a BSBA and an MBA with specialization in Finance from Southern Illinois University.

Philip J. Orlando, CFA, Senior Vice President, Chief Equity Market Strategist with Federated Investors Global Institutional. As Chief Equity Market Strategist, responsible for formulating Federated's opinions on the various equity markets and positioning strategies, as well as articulating the practical implications of those targets to clients and potential clients. Also serves as head of the Balanced/Macro team within the equity area. Previous associations: CIO & Sr. Portfolio Manager, Value Line; CIO & Portfolio Manager, First Capital Advisers; Portfolio Manager, Unity Management; Equity Analyst, Manufacturers Hanover; Equity Analyst, Donaldson, Lufkin & Jenrette. B.A., M.B.A., New York University. Joined Federated 2003; Investment Experience: 27 Years.

Jim Zauner joined the Institutional Markets group at Dow Jones Indexes in 2006 as Director of Business Development after 22 years working in operations and marketing for The Wall Street Journal and Barron's. He is based out of the Princeton, New Jersey office and focuses on educating pension plans and consultants about benchmarks including the Dow Jones Wilshire family among other Dow Jones Indexes. Jim is a graduate from the University of North Carolina at Charlotte where he received a degree in business administration. He also earned an MBA from Rollins College in Winter Park, Florida.

A convenient registration form for PAPERS' Pittsburgh workshop may be found on page 8. Sign up early!

PAPERS

PO Box 6817
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Registration for September 26, 2007 PAPERS Workshop in Pittsburgh

(see pages 1, 2, & 7 for details)

Please check appropriate category:

- ❑ ***Participating Members*** – 1st registration free/$45 registration for each additional person
- ❑ ***Associate Members*** – $750/person registration fee

Individual's name ______________________________

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Complete, detach at dotted line and return no later than Sept. 15, 2007, with full payment due.

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