

Commonwealth of Pennsylvania Public School Employees' Retirement System

DATE: September 22, 2010

SUBJECT: Bridgewater All Weather@12%, Ltd.

TO: Members of the Board

FROM: James H. Grossman, Jr., CPA, CFA
Managing Director of External Public Markets, Risk & Compliance

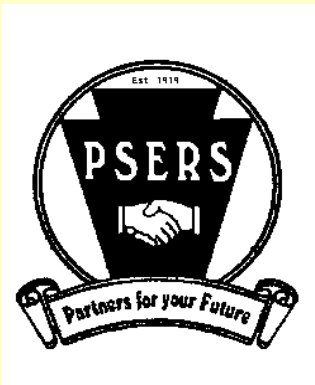
Staff has been looking for ways to use Bridgewater's All Weather philosophy in the asset allocation process of the Fund. We had Bridgewater evaluate two potential ways to achieve environmental balance (i.e., no biases for growth or inflation) in the portfolio based on our current asset allocation. The first involved an unconstrained approach where equities would be sold and replaced with leveraged bond positions. The second involved constraining the sale of equities and balancing the risk through leveraging other portions of the portfolio, specifically nominal and inflation-linked bonds. After reviewing the results, staff concluded that this restructuring of the portfolio was not currently feasible because of the enormous amount of portfolio turnover that would need to occur. However, we plan to continue to evolve the asset allocation to better environmental balance over next few of years.

Staff evaluated another use for the All Weather@12%, Ltd. Fund (All Weather Fund). Currently, PSERS has a 5% cash allocation that is earning very little return. To increase the cash return, we are proposing the creation of a custom cash portfolio. Our proposal is to allocate 25% of the cash portfolio (1.25% of the total fund, or approximately \$575 million) to the All Weather Fund and maintain the other 75% of the cash portfolio in internally-managed STIF. The resulting customized cash portfolio is projected to have approximately 3.0% risk and generate 180 basis points of return annually, net of fees, over the long-term. The All Weather Fund should perform well in most, but not all, environments. It is a portfolio structured to collect risk premiums and is environmentally balanced, meaning that it is not biased in its portfolio construction to increasing or decreasing economic growth or rising or falling inflation. The All Weather Fund has favorable characteristics for this type of mandate since it has no lock-up, monthly liquidity, and low management fees.

Attached are two Wilshire Compass reports. The first report, entitled "Performance Review: PSERS-Bridgewater All Weather II" shows the historical performance of the All Weather Fund over the past ten years with various risk characteristics. Note that over the past one-, three-, five-, and ten-year periods ended June 30, 2010, the All Weather Fund has outperformed our Policy Index. The second report, entitled "Performance Review: PSERS-Custom STIF" is a pro-forma performance review for an allocation of 25% to the All Weather Fund (net of fees) and T-Bills. Note that the only year that this allocation would have generated a negative return was in 2008 and that this allocation outperformed T-Bills in 7 out of 10 years and for all the annualized periods ended June 30, 2010.

Staff and Wilshire recommend that the Finance Committee approve an allocation of up to 1.50% of the Total Fund to the All Weather Fund. Wilshire's recommendation is included with this memo. The intention is to invest 1.25% of the Fund in the All Weather Fund. The additional 0.25% allocation will allow for volatility of the Fund's NAV over time.

If you have any questions or comments, please contact me at 717-720-4703.



Cash Allocation

Bridgewater All Weather Allocation

October 7, 2010

See Page 8 for Disclaimer

James H. Grossman, Jr., CPA, CFA
Managing Director of External Public
Markets, Risk & Compliance

Bridgewater All Weather Fund

Overview of Bridgewater

- One of the world's largest hedge fund managers founded over 35 years ago
- Founded on principles of separating alpha and beta
- Firm manages approximately \$79 billion
 - \$22 billion in All Weather product
 - \$57 billion in Pure Alpha product
- Approximately 950 employees
- Institutionally focused

Bridgewater All Weather Fund

Fund Strategy

- Bridgewater's All Weather Fund is a risk balanced beta strategy
- Designed to capture asset risk premiums
- Fund balances risk across rising and falling growth and inflation environments

	GROWTH	INFLATION
RISING	<p>25% of Risk</p> <ul style="list-style-type: none">• Equities• EM Debt Spreads• Commodities• Corporate Spreads	<p>25% of Risk</p> <ul style="list-style-type: none">• Inflation-Linked Bonds• Commodities• EM Debt Spreads
FALLING	<p>25% of Risk</p> <ul style="list-style-type: none">• Nominal Bonds• Inflation-Linked Bonds	<p>25% of Risk</p> <ul style="list-style-type: none">• Equities• Nominal Bonds

Bridgewater All Weather Fund

Value Proposition

- Bridgewater's All Weather Fund is a portfolio structured to do well in most economic environments
 - When risk spreads widen significantly, this portfolio may underperform cash
 - When cash outperforms all other asset classes, this portfolio will underperform
- This Fund is very liquid and is expected to outperform cash
- Represents an opportunity to maintain liquidity while earning more than cash returns

Bridgewater All Weather Fund

Manager History with PSERS

- Have managed a Global TIPS mandate since early 2004; current balance is approximately \$1.05 billion
- Have been invested in Bridgewater's Pure Alpha II Fund since late 2005; current balance is approximately \$915 million

Targeted Returns and Volatility of Bridgewater All Weather

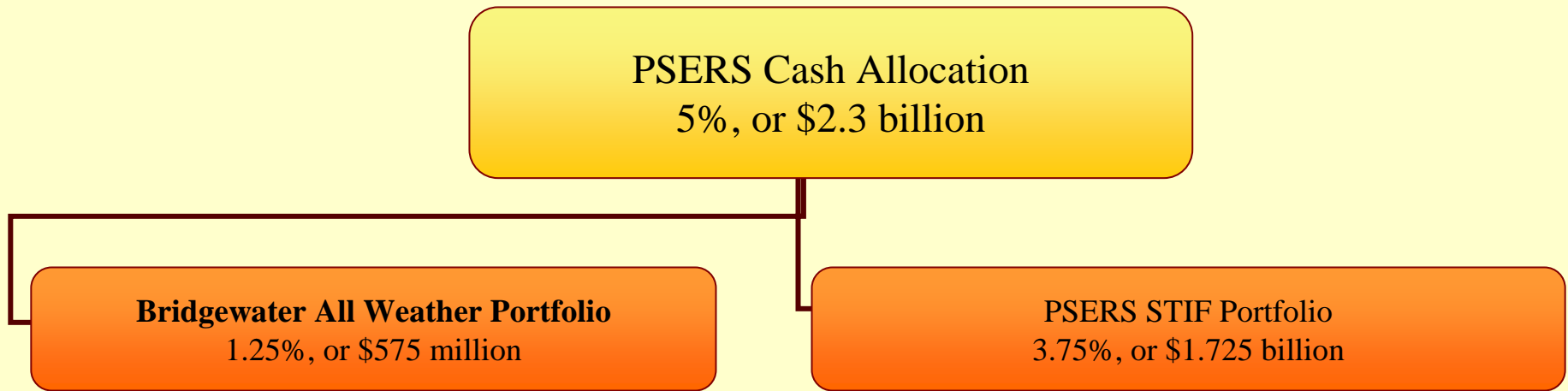
- Gross Annualized Target Risk Premium: 7.5%
- Estimated Net Annualized Target Risk Premium: 7.2%
- Annualized Volatility: 12.0%
- Sharpe Ratio (Net): 0.60

Portfolio Use of Bridgewater All Weather Fund

- Staff plans to use this product as a cash substitute in order to generate incremental returns without sacrificing liquidity

PSERS Cash Allocation

Proposed Account Structure



This structure maintains sufficient liquidity to meet current operating needs as well as providing incremental returns over time. The combined risk of this structure is approximately 3.0%

Bridgewater All Weather Fund

Fund Terms

- Management fee: ~0.37%
- Performance Fee: None
- High Water Mark: N/A
- Administrator: DPM Mellon Limited
- Auditor: Arthur F. Bell, Jr. & Associates
- Liquidity: Monthly
- Transparency: Full

Bridgewater All Weather Fund

Other

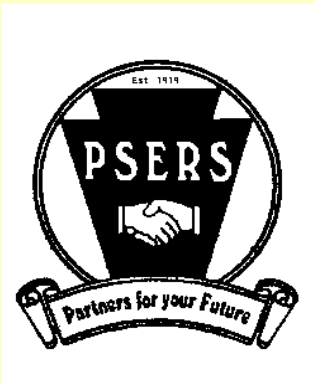
- Relationships with Wilshire: None
- Placement Agents: None
- Political Contributions in PA: None

Bridgewater All Weather Fund

Recommendation

- Staff, together with Wilshire Associates, recommends that the Board invest up to 1.5% of the total fund in the Bridgewater All Weather@12%, Ltd. Fund.

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Cash Allocation

Bridgewater All Weather Allocation

October 7, 2010

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James H. Grossman, Jr., CPA, CFA
Managing Director of External Public
Markets, Risk & Compliance

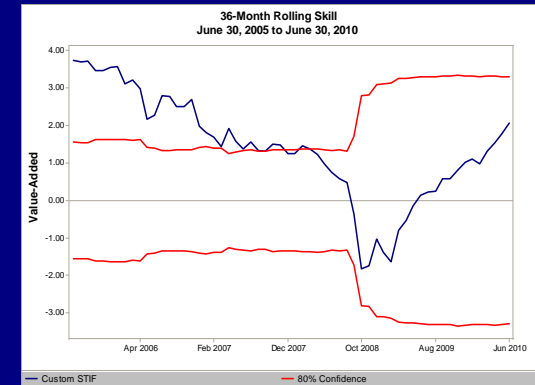
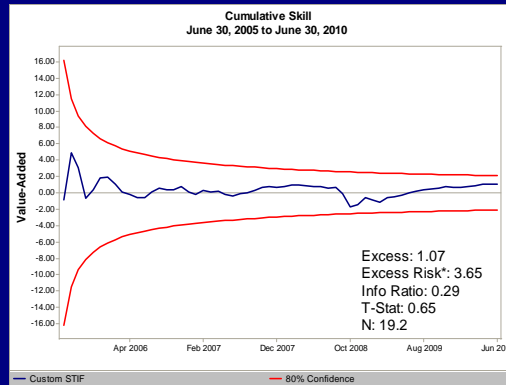
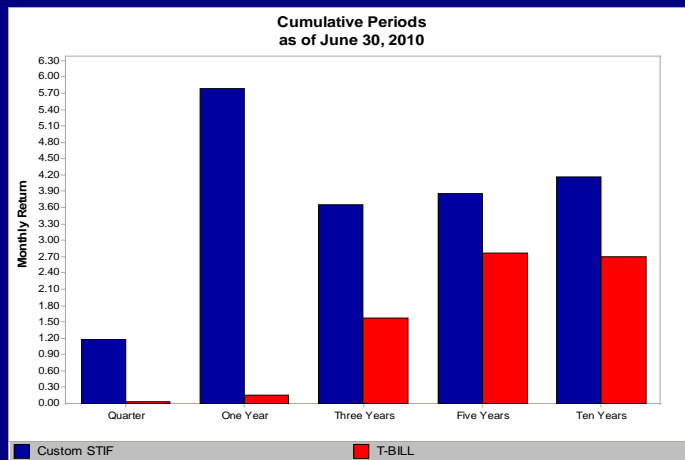
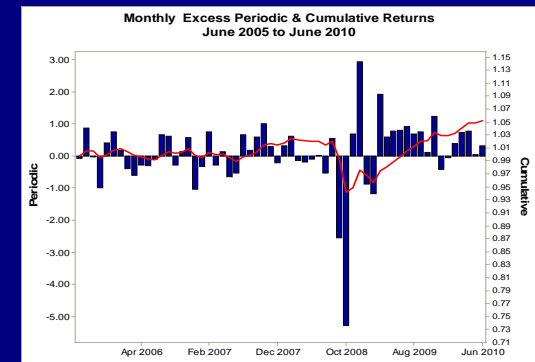
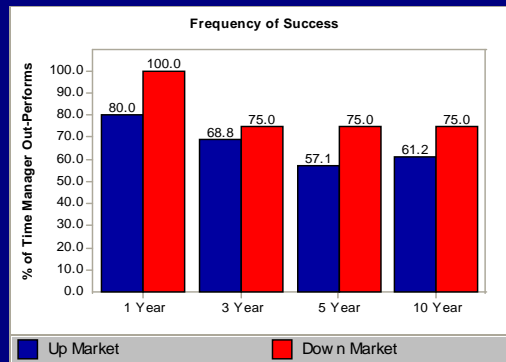
Performance Review: PSERS - Custom STIF

Contact:
 Phone:
 E-Mail:
 Product Inception:
 Open for New Business:
 Assets Under Management:
 Investment Philosophy:

Sources of Value Added:
 % Style
 % Sector
 % Stock Selection
 % Active Asset Allocation

Historical Returns	Annualized Ended 06/30/2010				Annual Returns									
	1 Year	3 Years	5 Years	10 Years	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Custom Stif	5.79	3.66	3.86	4.17	5.66	-1.84	6.74	3.95	6.10	5.27	4.99	3.86	1.80	N/A
T-BILL	0.15	1.57	2.76	2.70	0.20	2.05	5.03	4.81	3.06	1.33	1.17	1.79	4.43	6.16
Risk - Standard Deviation														
Custom Stif	1.64	4.44	3.62	2.94	3.10	6.84	1.85	1.85	1.83	2.07	2.85	1.57	2.05	N/A
T-BILL	0.03	0.57	0.62	0.58	0.04	0.46	0.26	0.14	0.19	0.14	0.07	0.06	0.45	0.21
Risk - Semi-Variance														
Custom Stif	1.21	3.79	3.04	2.39	2.40	5.72	1.34	1.28	1.42	1.74	1.90	1.13	1.42	N/A
T-BILL	0.02	0.31	0.45	0.37	0.03	0.26	0.19	0.11	0.14	0.08	0.04	0.04	0.29	0.14
Excess Returns														
Arithmetic Excess	5.64	2.09	1.10	1.47	5.46	-3.89	1.71	-0.86	3.04	3.95	3.83	2.06	-2.63	N/A
Geometric Excess	5.63	2.06	1.07	1.44	5.45	-3.81	1.63	-0.82	2.95	3.89	3.78	2.02	-2.52	N/A

Excess Statistics Manager vs. Benchmark	Annualized Ended 06/30/2010			
	1 Year	3 Years	5 Years	10 Years
Tracking Error	1.64	4.46	3.65	2.98
Information Ratio	3.42	0.46	0.29	0.48
Downside Deviation	1.21	3.78	3.00	2.39
Skewness	-0.25	-2.23	-2.17	-2.00
Kurtosis	-0.53	9.37	11.66	13.36
Alpha	5.64	2.16	1.13	1.48
Beta	0.00	0.00	0.00	0.00
Residual Risk	1.64	4.46	3.66	2.99
R Squared	0.00	0.00	0.00	0.00





Memorandum

Date: September 22, 2010

To: James H. Grossman, Jr., CFA
Managing Director of External Public Markets, Risk and Compliance
Pennsylvania Public School Employees' Retirement System

A handwritten signature in black ink, appearing to read 'Ribe.' or similar, positioned above the 'From' field.

From: William G. Bensusan, Jr., CFA
Managing Director
Wilshire Associates Incorporated

A handwritten signature in black ink, appearing to read 'M. Pease', positioned above the name Marlin D. Pease.

Marlin D. Pease, CFA
Managing Director
Wilshire Associates Incorporated

Re: Bridgewater All Weather @ 12%, Ltd.

The purpose of this memorandum is to recommend the use of Bridgewater All Weather @ 12%, Ltd. ("Bridgewater") to manage a portion of the cash allocation in the PSERS investment program. Wilshire believes that Bridgewater is a high quality, institutionally oriented firm with deep resources and a qualified investment team.

Organization

Bridgewater was founded by Ray Dalio and began investment operations in 1975, first providing money management and consulting services in the global credit and currency markets. Bridgewater registered with the SEC as an investment advisor in 1990 and has been managing assets for institutional investors ever since. Bridgewater has approximately US\$ 79 billion in assets under management. Bridgewater has developed several concepts with implications for institutional portfolios, the most significant being the separation of alpha (manager-skill) and beta (asset allocation/collecting risk premiums), and the application of this concept in hedge fund, GTAA and alpha overlay mandates. Bridgewater Associates is 100% (current and former) employee owned and controlled. Key senior professionals own equity interests, phantom equity interests, or a combination. The principals of Bridgewater, Ray Dalio, Bob Prince, and Greg Jensen, comprise the company's senior investment team. They oversee the entire investment management process and monitor the performance of all portfolios and investment systems with the support of their staff of investment professionals. There has been no turnover of the Bridgewater senior investment team, which has an average tenure of 23 years at the firm. The firm has 947 employees.



Investment Approach

Bridgewater's philosophy seeks to balance exposure to economic environments, i.e. economic growth and inflation, to achieve reliable diversification. Bridgewater illustrates the economic environments in four quadrants: rising / falling growth and rising / falling inflation. By balancing risk exposure to these four economic environments, the portfolio is structured to do well across all market conditions. The process allocates risk to six global asset classes (equities, nominal bonds, inflation linked bonds, commodities, emerging market debt spreads and corporate spreads). Utilizing leverage or leverage-like techniques, Bridgewater risk-adjusts asset classes to a similar return / risk level. The objective is to achieve meaningful diversification across assets within a portfolio that produces equity-like returns with less risk.

Recommendation

We agree with PSERS' staff's proposal to allocate 25% of the cash portfolio to Bridgewater's All Weather Fund while retaining 75% of the cash portfolio in the internally-managed STIF. The creation of this custom cash portfolio offers an opportunity to enhance the return on PSERS' 5% cash allocation. In addition, this allocation will provide an opportunity to observe and evaluate the performance of this risk-parity strategy.

Please let us know if you have any questions or would like to discuss any of these issues.