

Investment Committee Education Session

Thursday, November 20, 2008 10:00 AM

William Green Building

30 West Spring Street, 2nd Floor (Mezzanine)

Columbus, Ohio 43215

Members Present: Robert Smith, Chair
Alison Falls, Vice Chair
James Harris
David Caldwell
Larry Price (arrived at 10:06 AM)

Members Absent: None

Other Directors Present: Thomas Pitts, William Lhota, James Hummel,
Charles Bryan

CALL TO ORDER

Mr. Smith called the meeting to order at 10:00 AM and the roll call was taken.
Mr. Price was absent for roll call but arrived at 10:06 AM.

EDUCATION SESSION

Mr. Smith reported that the meeting was to be devoted to an education session with a report from Mercer Global Investments, Inc. Chief Investment Officer Bruce Dunn was also present.

Mercer consultants present included Rich Nuzum, Kristin Finney-Cooke, and Dr. Louis Finney, who Mr. Nuzum introduced as Mercer's Chief Economist. Dr. Finney presented the bulk of the report review.

Strategic asset allocation is the most important decision made by this committee and the Board. Asset allocation is first and foremost a tool to achieve goals of meeting liabilities. Mercer agrees with Deloitte that a funding plan is necessary, with the proper goals of achieving a funding ratio and minimizing loss. Various factors influencing the funding ratio were reviewed.

It was agreed, pursuant to comments raised by Mr. Bryan that these issues need to be understood in common sense terms as well as "black box" simulation models. Mercer will take BWC actuarial projections and data and run it through its own proprietary modeling tools. Ms. Falls suggested the initial results should be reviewed in a joint meeting of the Investment and Actuarial Committees. Mr. Bryan queried whether Ohio-specific data is factored into the modeling. Mercer agreed this could be used initially to reflect current conditions. On a long term projection basis, it should be very similar to the national average. Modeling has been ratified in market behavior across the globe over a period of many years.

A discussion ensued over what type of asset classes should be used in the modeling, and whether certain classes should be eliminated at the beginning due to past negative experience with those investments. Mr. Nuzum emphasized that with a high degree of certainty, premiums will be lower and more stable if multiple asset classes and a broader allocation is involved. Mercer has planned for such an analysis, so it would not be any extra workload. Ms. Falls expressed that by looking at more asset classes, the Board can better understand the trade-offs if certain classes are eventually eliminated.

RECESS

Mr. Smith recessed the meeting at 11:35 AM

RECONVENING

Mr. Smith reconvened the meeting at 11:45 AM.

Returning to the Mercer presentation, per a question from Mr. Price, volatility of treasury and corporate bonds was explained.

Two types of liabilities, medical indemnity and wage replacement, will also be modeled using figures through June 30, 2008. A discussion was had with respect to how long projected results should be calculated. It was determined a 20-year analysis would be done.

Key metrics were reviewed, including plan sustainability, assets/liabilities, liquidity score, funded status volatility, and stability of premium.

Ms. Falls queried at what point in time a target funding ratio should be provided. Mercer would like to have a figure in December in order to provide initial data to BWC in January. Administrator Marsha Ryan will provide working assumptions to Mercer.

Per a question from Mr. Nuzum, Chief Actuarial Officer John Pedrick clarified that if BWC is above or below the funding ratio, the difference should be amortized over a five- year period.

ADJOURNMENT

Mr. Smith adjourned the meeting at 12:57 PM.

Prepared by Jill Whitworth, Staff Counsel November 21, 2008

Investment Committee

Thursday, November 20, 2008, 1:00 p.m.

William Green Building

30 West Spring Street, 2nd Floor (Mezzanine)

Columbus, Ohio 43215

Members Present: Robert Smith, Chairman
Alison Falls
Larry Price
David Caldwell
James Harris
William Lhota, ex officio

Other Members Present: James Hummel
Thomas Pitts
Chuck Bryan
Kenneth Haffey

CALL TO ORDER

Mr. Smith called the meeting to order at 1:00 pm.

ROLL CALL

Roll call was taken. All committee members were present.

APPROVE MINUTES OF THE SEPTEMBER 25, 2008 MEETING & OCTOBER 30 MEETING

Upon motion of David Caldwell, seconded James Harris, the minutes of September 25, 2008 were approved, 6-0. Upon motion of Alison Falls, seconded by Larry Price, the minutes of October 30, 2008 were approved 6-0.

NEW BUSINESS / ACTION ITEMS:

INVESTMENT COMMITTEE CHARTER REVIEW

Motion was made by Ms. Falls, seconded by Mr. Caldwell, as follows: that the Investment Committee of the Workers' Compensation Board of Directors refer its amended charter to the Board of Directors for review and approval. Roll call was taken and the motion passed 6-0.

FIXED INCOME COMMINGLED PASSIVE INDEX MANAGER UPDATE

Bruce Dunn, Chief Investment Officer led a discussion on this subject matter. Mr. Dunn's written report dated November 10, 2008 on the issue is incorporated by reference into the minutes. Mr. Dunn noted the timeline of events that have occurred regarding the Request for Quotations process since the initial approval by the Board of Barclays Global Investors as the recommended Commingled Index Manager for the Public Work-Relief Employees' Fund and the Marine Industry Fund in April 2008 through the August 2008 meeting whereby the Board rescinded the approval of Barclays Global Investors and approved the recommendation that State Street Global Advisors serve as such manager. Barclays and State Street had similar scores with respect to the request for quotations submission as graded by the RFQ Evaluation Committee. The two firms' divergent approaches to derivatives management, learned subsequent to the initial recommendation and vote in April 2008, guided the Bureau's ultimate choice of State Street Global Advisors. Mr. Dunn discussed the additional due diligence conducted with regard to evaluating the two firms. The current market environment also required the Bureau to revisit securities lending as part of this investment mandate. Mr. Dunn indicated it is not advisable for the Bureau to proceed with securities lending at this time due to the current financial crisis of the U.S. economy and deteriorating credit conditions. Mr. Dunn reaffirmed the recommended selection of State Street as the Commingled Fixed Income Passive Index Manager for these two ancillary funds and the suspension of securities lending. This does not require a change to the Investment Policy Statement. With regard to investment manager quarterly due diligence conducted by the investment staff, Mr. Dunn and Lee Damsel, Director of Investments, met with many high-level investment professionals of State Street Global Advisors in their Boston offices last week, including an informative and positive meeting with the chief executive officer of State Street Global Advisors.

Motion was made by Ms. Falls, seconded by Mr. Caldwell as follows: that the Investment Committee recommend to the Board of Directors of the Bureau of Workers' Compensation to proceed to implement the Intermediate Duration Fixed Income Commingled Passive Index Investment with State Street Global Advisors, as originally approved in August 2008 for both the Public Work Relief Employees' Fund and the Marine Industry Fund, for the reasons set forth in the memorandum of the Chief Investment Officer date November 10, 2008. Roll call was taken and the motion passed 6-0.

Motion was made by Robert Smith, seconded by Mr. Price as follows: that the Investment Committee recommend to the Board of Directors of the Bureau of Workers' Compensation to suspend securities lending activity in the approved Intermediate Duration Fixed Income Commingled Passive Index Investment with State Street Global Advisors for both the Public Work Relief Employees' Fund and the Marine Industry Fund, for the reasons set forth in the memorandum of the Chief Investment Officer dated November 10, 2008. Roll call was taken and the motion passed 6-0.

INVESTMENT POLICY STATEMENT REVIEW

Discussion was made of portfolio rebalancing, and ambiguities in the Investment Policy Statement regarding portfolio rebalancing actions. Mr. Dunn indicated it is unclear as to

when rebalancing is to occur in the current portfolio rebalancing language in section IV.B of the Investment Policy Statement and it is also unclear what will trigger the rebalancing. It is unclear as to what specific reasons may justify not rebalancing. A report prepared by Mercer Consulting dated November 17, 2008 is incorporated into the minutes. The report was discussed by Kristin Finney-Cooke. Discussion was made of the current market conditions. An awareness of market volatility and high transaction costs are considerations involving rebalancing. Discussion was made of possible revisions to the Investment Policy Statement. Mr. Dunn discussed exceptions to rebalancing and documented reasons as to why the Bureau should not rebalance the portfolio at this time. Ms. Falls raised the issue of a possible partial revision of the Investment Policy Statement. Mr. Dunn indicated a need for clarification on when to rebalance, and what triggers a rebalance. Mr. Smith indicated his preference to change the Investment Policy Statement with a two step process – the first to create an exception to the rebalancing mandate, and the second step to be a thorough review of the rebalancing language. Further discussion on these issues ensued. Ms. Falls noted that a lack of liquidity in the markets may make rebalancing difficult. Mr. Dunn recommended that Bureau needs discretion to not rebalance if the markets have such low liquidity that harm will be done to the Bureau as a result of rebalancing.

Motion was made by Mr. Smith, seconded by Mr. Harris, as follows: that the Investment Committee of the Workers' Compensation Board of Directors recommend to the Board that it amend current section IV.B of the Statement of Investment Policy and Guidelines to include language pertaining to exceptions to the implementation of required rebalancing actions. The exact changes adopted as a result of this motion are incorporated by reference in these minutes

Ms. Falls made the following motion: "Upon such report by the Administrator, the Board will request the Administrator and the CIO for a plan and an expected timeline to return to compliance with the policy.

Discussion was made of this amendment to the motion regarding rebalancing. The discussion focused on having a decision to not rebalance reported to the Board for Board ratification, and request for a proposed timeline and plan for return to compliance. Mr. Price cautioned the Board to not do too much.

There was further discussion by Mercer Consulting, including discussion with regard to a need for consistent rebalancing procedure. Mr. Smith noted that if the policy is amended, then Ms. Fall's amendment to the motion is not necessary, as the intent of the motion itself is to authorize Bureau management to make a determination of rebalancing. Mr. Lhota observed that the amendment is unnecessary because the policy states when the impacted financial markets become sufficiently liquid, the staff will rebalance. Mr. Smith believed the amendment would put the burden back on the Board, when the decision to not rebalance should be kept at the management level. Mr. Lhota agreed with that comment. The motion to amend died for lack of a second.

Mr. Dunn wants a fuller discussion with the Investment Committee with regard to Mercer's additional recommendations. There needs to be sufficient sensitivity to transaction costs. Mr. Price noted a need to allow the Bureau more time to assess additional recommendations. Ms. Finney-Cooke suggested monthly rebalancing, but is amenable to the idea of quarterly rebalancing. More frequent rebalancing may be appropriate as the market allows. Ms. Falls wants Mercer Consulting to report on other investment policy statements that define conditions where rebalancing would not be appropriate.

The exact changes adopted as a result of this motion will be incorporated in the minutes of this meeting of the committee. Roll call was taken and the motion passed 5-1. Ms. Falls voted no.

ANNUAL REPORT ON THE PERFORMANCE AND VALUE OF EACH INVESTMENT CLASS

Discussion was made of the Annual Report, as mandated by RC 4121.12(F) (12) on the performance and value of each investment class. This Annual Report dated November 7, 2008 was prepared and submitted by Mr. Dunn in his written report dated November 10, 2008 to the Investment Committee and Board and is incorporated into the minutes. The discussion was led by Mr. Dunn. William Lhota inquired as to the value of the document. It was noted that it does have historical value. Ms. Falls indicated that the annual report may follow the letter of the law but may not follow the spirit of the law as investment asset classes may need to be broken down further into subclasses for future annual reports submitted. Motion was made by Mr. Smith, seconded by Mr. Harris, as follows: that the Investment Committee recommend to the Bureau of Workers' Compensation Board of Directors approve the Annual Report on the performance and value of each investment class, as prepared by the Chief Investment Officer and dated November 10, 2008, and to submit the report to the Governor and legislative leaders in fulfillment of the Board's obligation under Revised Code section 4121.12(F) (12). Roll call was taken and the motion passed 6-0.

MONTHLY AND FISCAL YEAR TO DATE PORTFOLIO VALUE COMPARISONS

The document prepared for comparisons is incorporated into the minutes. Discussion was made by Mr. Dunn with regard to comparing results from October 2008 to September 2008 and from October 2008 to June of 2008. There was a reduction in the market value of total invested assets in excess of two billion dollars from the end of June 2008 to the end of October 2008. Mr. Dunn indicated that liquidity is slowly returning to the credit markets.

PORTFOLIO PERFORMANCE

The report was delivered by Ms. Finney-Cooke of Mercer Consulting. The report is incorporated by reference into the minutes. Discussion was made of key issues and risks, recession risks, and the continuing problem of liquidity. There was only moderate growth projected for perhaps the second half of 2009. Mr. Smith asked for clarification of her comment that the market was fairly valued. Mr. Harris inquired as to whether unemployment projections consider the auto manufacturers. The answer was no. Mr.

Price inquired as to the distinction between unrealized and realized losses. Mr. Dunn indicated that realized losses are the result of the actual sale of invested assets whereas unrealized losses are market value comparisons of assets still currently owned. Mr. Dunn noted according to figures as of October 31, 2008, there was a net unrealized loss of two billion, five-hundred thirty-eight million dollars from end of June 2008 through end of October 2008.

PRIVATE EQUITY SALE COMPLETION SUMMARY REPORT

A written report prepared by the BWC Investment Division is incorporated by reference into the minutes. This report was presented to the Investment Committee by Ms. Damsel. Mr. Dunn started with a brief overview of the sales process and praised the work and efforts of all parties involved in accomplishing the successful completion of the private equity sale. UBS Investment Bank served as an advisor to the sale. UBS utilized a two stage auction approach. The sale process took two and one half years to complete from the time the decision was made to sell all private equity investments by the former Oversight Commission in March, 2006. There was substantial involvement and interaction with both outside legal counsel Benesch Friedlander and internal legal staff to complete this sale process. A total of \$813 million was committed for investment in 68 different private equity partnerships. Ms. Damsel mentioned the aggregate proceeds from partnership sales realized by the Bureau represented approximately a 3% discount from September, 2006 book values. Ms. Damsel indicated that this small discount compares very favorably with discounts of approximately 50% being offered in the current secondary market for large private equity partnership portfolios being brought to market.

CIO REPORT OCTOBER 2008

The report was provided by Mr. Dunn. Highlights of the report were made by Mr. Dunn. The report is incorporated into the minutes. With respect to Investment Staff, a candidate for the senior investment manager position has accepted an offer of employment. As of January 2009 when such person is expected to join staff, there will be seven out of eleven staff members possessing the credential of certified financial analyst. The last private equity sale occurred in October of 2008. Discussion was made of current liquidity of the Bureau and the frequent discussions that occurred between the Investment Division staff and the Bureau's outside investment managers that led to an internal cash management strategy formulated with the Fiscal and Planning Division.

COMMITTEE CALENDAR

Mr. Smith noted that discussion on portfolio rebalancing will continue at the next Committee meeting.

Motion was made by Mr. Smith, seconded by Mr. Harris, to adjourn the meeting at 2:30 pm. Roll call was taken and the motion passed 4-0. Mr. Lhota and Mr. Price had left the meeting just prior to the motion.

Prepared by: Thomas Woodruff, Interim Director Self Insured Department
November 24, 2008



Memo

To: BWC Board of Directors
BWC Investment Committee

Date: December 14, 2008

From: Kristin Finney-Cooke
Guy M. Cooper
Kweku Obed

Subject: Approaches To Rebalancing Challenges During Market Dislocations

Copy: Bruce Dunn, Lee Damsel

Due to the recent market turmoil, many US Institutional Funds find themselves out of their strategic asset allocation policy ranges for various asset classes. Under normal conditions, Mercer recommends that the strategic asset allocation percentages be restored when asset percentages fall outside the policy ranges set forth in the Statement of Investment Policy (IPS). However, given the current extreme market conditions, Mercer has recommended that clients postpone rebalancing back to target allocations at this time. Unprecedented volatility and lack of liquidity in the global capital markets has made rebalancing inappropriate for many.

We see four options available to Plan Sponsors to address asset allocation imbalances.

1. Amend the Statement of Investment Policy Statement to include language that gives guidance during these type of extreme markets
2. Temporarily expand the tactical ranges of the Investment Policy
3. Use a futures overlay (derivatives) program to rebalance the fund
4. Persevere with the rebalancing discipline, which for most funds means liquidating fixed income and buying equity despite dislocations in both these markets

Among the public fund clients that Mercer works with, the preferred option has been number 2 above. The typical response of the Boards of these funds has been to approve a temporary widening of the permissible ranges that are stated in the Investment Policy Statement for the several asset classes. Under this relaxation, a violation of the permissible

ranges under the Investment Policy is no longer a violation and rebalancing is not necessary.

The temporary widening of the policy ranges has been approved by the Boards, but the temporary changes have not been made an amendment to the Investment Policy Statement. Boards have struggled with the issue of how and when the temporary relaxations are to be suspended and the discipline of the original policy adhered to. Most Boards are requiring a monthly report from the staff on the state of the markets, including staff evaluation of volatility and liquidity, focusing on the VIX index and on corporate-to-government bond yield spreads. No Board that has temporarily widened their permissible ranges has yet determined a firm method for reversing the process.

A few Boards are discussing establishing a 'sunset' requirement on the temporary relaxation of their guidelines. Thus, the Fund would automatically restore its original asset allocation guidelines in, say, one year, unless specifically extended by the Board.

Of the four options presented above, Mercer has recommended to our clients either option #1 (Amend IPS) or option #2 (Temporarily expanding the tactical ranges of the Investment Policy). The two later options are secondary choices. Option # 3 - the use of futures in this volatile market - could cause large margin calls and the illiquidity of the futures market can be an issue. Option #4 - traditional rebalancing - is not ideal at this time due to market conditions of extreme volatility and illiquidity.

We are not aware of any client who has adopted the course the Bureau has: amending the Statement of Investment Policy with an extreme market exception clause.

We look forward to discussing these issues at the Investment Committee meeting scheduled for Wednesday, December 17, 2008.



Memo

To: BWC Board of Directors
BWC Investment Committee

Date: December 8, 2008

From: Guy M. Cooper, Kristin Finney-Cooke

Subject: Suggested Investment Policy Language: Portfolio Rebalancing

Mercer has made suggested revisions to Section IV.B of the Bureau's Investment Policy Statement regarding the Bureau's Rebalancing Policy per the outlined language below. Mercer believes that these revisions will resolve any apparent conflicts in an acceptable way.

B. Rebalancing Policy

Rebalancing is the periodic adjustment of an asset portfolio for the purpose of shifting the asset allocation back towards the desired target percentages. Rebalancing policies are put in place to provide a reliable discipline to keep a portfolio in balance as market fluctuations change the percentages that are committed to various asset classes. Over time, the asset mix of any portfolio will tend to drift away from its strategic target asset allocation, acquiring risk and return characteristics that are unintended.

The Board has adopted a policy of rebalancing when actual asset allocations fall outside of the desired ranges as detailed in Section VII A. through F. For purposes of rebalancing, the percentages that each asset class constitutes of the total market value of the fund of which it is a part will be computed at the end of every calendar quarter. If the actual percentage of an asset class falls outside of the allowable ranges as outlined in Section VIII by any amount, a rebalancing event will be triggered.

The following sequence of actions will be applied for any rebalancing activity:

1. When a rebalancing event is triggered, the Chief Investment Officer will notify the Administrator that a rebalancing event is imminent.
2. The Investment Division will then contact the appropriate outside investment managers and the BWC investment consultant to discuss market conditions and potential rebalancing actions.

3. The Investment Division will calculate a specific rebalancing dollar reallocation that will factor in appropriate future trust fund cash flows and the desired asset allocations after rebalancing. In general, the Board's policy, when rebalancing becomes necessary, is to restore an asset allocation for the out-of-balance asset class that is halfway between the outer bound that was violated and the original target asset percentage. Thus, as an example, if equities have a target allocation of 20%, and an allowable lower limit of 17%, but fall to 16% at a quarter's end as a result of market action, the proposed rebalancing plan would seek to restore equities to 18 ½% of the total fund (halfway between 17% and 20%).
4. The Chief Investment Officer will present a rebalancing recommendation to the Senior Officer Review Team, which consists of the BWC Administrator, the Chief Operating Officer, and the Chief Fiscal & Planning Officer, for approval before any such asset rebalancing can be implemented and executed.
5. Finally, the Chief Investment Officer will provide a written summary of the fully executed rebalancing activity for any respective trust fund portfolio to the BWC Investment Committee at its next scheduled meeting.

In order to minimize turnover, Fund cash flows, such as premiums received or benefits paid, will be used to the fullest extent to achieve rebalancing objectives.

During periods of extreme market conditions and consequent illiquid markets whereby the ability to execute identified Fund asset rebalancing adjustments is made difficult and costly in the judgment of the Administrator and Chief Investment Officer, such rebalancing actions may be suspended. The suspension of such rebalancing actions and the reason for such decision will be reported promptly to the Board by the Administrator and Chief Investment Officer. Any required rebalancing action for a Fund will be implemented when the impacted financial markets become sufficiently liquid so as to execute such rebalancing action with reasonable cost in the judgment of the Administrator and Chief Investment Officer.

Section IV.B of the Statement of Investment Policy and Guidelines that expresses the Bureau's Rebalancing Policy currently reads as follows:

B. Rebalancing Policy

The asset allocation targets represent a long-term strategy. Short-term market activity will cause the asset mix to drift from the specific allocation targets. A **Rebalancing Policy** is designed to provide a disciplined approach to control the risk exposure of each Fund to the investment categories that have deviated from the established target policy weights. The Board has adopted a policy of range rebalancing. Under range rebalancing, asset rebalancing will be triggered only when actual weightings fall outside of the ranges specified above. The Board expects range rebalancing to produce a superior return/risk tradeoff as compared to time rebalancing because turnover occurs only when necessary.

The Funds' asset allocations are to be monitored quarterly, or more frequently if market conditions warrant. Should the actual asset allocations for a particular class of investments deviate from the indicated range for a particular asset class, the Administrator and Chief Investment Officer will make the necessary adjustments to satisfy the asset allocation guidelines established by this Investment Policy. In order to minimize turnover, Fund cash flows, such as premiums received or benefits paid, will be used to the fullest extent to achieve rebalancing objectives.

During periods of extreme market conditions whereby the ability to execute identified Fund asset rebalancing adjustments is made difficult and costly in the judgment of the Administrator and Chief Investment Officer due to a major national or global crisis and consequent illiquid markets, such rebalancing actions may be suspended. The suspension of such rebalancing actions and the reason for such decision will be reported promptly to the Board by the Administrator and Chief Investment Officer. Any required rebalancing action for a Fund will be implemented when the impacted financial markets become sufficiently liquid so as to execute such rebalancing action with reasonable cost in the judgment of the Administrator and Chief Investment Officer.

DATE: December 8, 2008

TO: BWC Investment Committee
BWC Board of Directors

FROM: Bruce Dunn, CFA, Chief Investment Officer

SUBJECT: **Investment Policy Statement Revision**
U.S. Equity Portfolio Diversification Amendment (Section IV.C.iii)

Background

Section IV.C.iii of the BWC Statement of Investment Policy and Guidelines (IPS) provides diversification guidelines pertaining to U.S. Equity and Non-U.S. Equity portfolios of each of the BWC trust funds. At the present time, the Bureau has equity assets managed by one outside investment manager (Northern Trust) in separate account passive indexed portfolios managed to the S&P 500 benchmark index. There are separate account equity portfolios managed by Northern Trust for each of the State Insurance Fund (SIF), Disabled Workers' Relief Fund (DWRP) and Coal Workers' Pneumoconiosis Fund (CWRP). The Bureau does not currently have any non-U.S. equity portfolios.

One of the diversification rules for U.S. equity assets per Section IV.C.iii of the IPS states that **No single holding shall account for more than 5% of each Fund's total U.S. equity portfolio at market.** During the month of November 2008, there was one holding in the S&P 500 index, Exxon Mobil Corp., which began to exceed 5% of the total S&P 500 index at market.

Exxon Mobil had a market value that represented 3.96% and 4.54% of the total S&P 500 index market value as of 9/30/08 and 10/31/08, respectively. However, with the continued outperformance of Exxon Mobil common stock relative to the overall S&P 500 index during November, Exxon Mobil ended November representing 5.31% of the S&P 500 index at market. The percentage ownership of Exxon Mobil common stock at market value reflected as of 11/30/08 for each of the three S&P 500 indexed funds managed by Northern Trust was 5.31% for both SIF (\$109.2 million) and CWRP (\$1.7 million) and 5.33% (\$7.6 million) for DWRP. As a result of this recent evolving market trend, each of these three funds owned a specific common stock holding as of 11/30/08 that exceeded the current 5% limit of ownership required under Section IV.C.iii of the IPS.

As a matter of information, the next largest common stock holdings in the S&P 500 index as of 11/30/08 consist of five companies (Proctor & Gamble, GE, AT&T, Johnson & Johnson, Microsoft), each of whom represented between 2.0% and 2.5% of the S&P 500 index at market value.

Recommendation

The Investment Committee and Board of Directors approved in November, 2007 revisions to Section IV.C.ii of the IPS allowing for individual credit name limits for fixed income portfolios to be applicable only for actively managed fixed income mandates and to not be applicable for passively managed fixed income mandates.

It is similarly recommended that Section IV.C.iii pertaining to individual holding limits for U.S. equity portfolios not be applicable for passively managed (index) equity portfolios of the Bureau and be applicable only for actively managed U.S. equity portfolios. A passive indexed portfolio manager for a benchmark index mandate such as the S&P 500 index is both expected and required to very closely match the market value weighting representation of each holding of the benchmark index to each portfolio being passively managed by such portfolio manager.

The related memorandum from Mercer dated December 7, 2008 provides the specific amendment to the language of Section IV.C.iii of the IPS that is being recommended for approval.

Memo

To: BWC Board of Directors
BWC Investment Committee

Date: December 7, 2008

From: Guy M. Cooper, Kristin Finney-Cooke

Subject: Suggested Investment Policy Language: U.S. Equity

Activity in the U.S. Equity market has caused the stocks of one or more U.S. companies to grow to more than 5% of the total U.S. equity market. This violates a current provision of the Bureau's Statement of Investment Policy. We have outlined language below which we believe resolves this conflict in an acceptable way. Our suggested new language is shown in bold italics.

iii. U.S. Equity

The investment goal of the domestic equity investments is to offer the Funds a broad exposure to the return opportunities and investment characteristics associated with the U.S. domestic equity market.

Diversification

The U.S. Equity portfolio shall be diversified as specified below to minimize the risk of losses:

- Investments will be diversified by capitalization size and by style (growth and value) to approximate the overall market as measured by each Fund's U.S. Equity benchmark.
- ***No single holding shall account for more than 5% of the U.S. equity portfolio at market of any single active U.S. equity manager. These restrictions are applicable to actively managed U.S. Equity mandates only, and are not applicable to passively managed (index) equity mandates.*** [Replaces: No single holding shall account for more than 5% of each Fund's total U.S. equity portfolio at market.]
- No single holding shall account for more than 5% of the outstanding equity securities of any one corporation

**Ohio Bureau of Workers' Compensation
Invested Assets Market Value Comparison
TOTAL FUNDS**

<u>Asset Sector</u>	<u>Market Value Nov 30, 2008</u>	<u>% Assets</u>	<u>Market Value Oct 31, 2008</u>	<u>% Assets</u>	<u>Increase(Decrease) Prior Month-End</u>	<u>% Change</u>	<u>Market Value June 30, 2008</u>	<u>% Assets</u>	<u>Increase (Decrease) Prior Fiscal Year-End</u>	<u>% Change</u>
Bonds	13,262,197,996	83.3%	12,470,693,698	81.3%	791,504,298	6.3%	\$13,917,829,156	79.8%	(655,631,160)	-4.7%
Equity	2,248,166,406	14.1%	2,432,876,019	15.9%	(184,709,613)	-7.6%	3,185,174,964	18.3%	(937,008,558)	-29.4%
Net Cash - OIM	26,292,705	0.2%	15,196,392	0.1%	11,096,313	73.0%	31,217,754	0.2%	(4,925,049)	-15.8%
Net Cash - Operating	295,029,224	1.9%	323,605,836	2.1%	(28,576,612)	-8.8%	202,328,872	1.2%	92,700,352	45.8%
Net Cash - MIF, PWRF, SIEGF	97,201,165	0.6%	97,240,479	0.6%	(39,314)	0.0%	95,980,364	0.6%	1,220,801	1.3%
Total Net Cash	418,523,094	2.6%	436,042,707	2.8%	(17,519,613)	-4.0%	329,526,990	1.9%	88,996,104	27.0%
Total Invested Assets	\$15,928,887,496	100%	\$15,339,612,424	100%	\$589,275,072	3.8%	\$17,432,531,110	100%	(\$1,503,643,614)	-8.6%

OIM: Outside Investment Managers

MIF: Marine Industry Fund; **PWRE:** Public Work-Relief Employees' Fund; **SIEGF:** Self-Insured Employers' Guaranty Fund

Market Value of Bonds and Stocks includes accrued investment income.

Net Cash includes the impact of net trade receivables/payables, accrued money market earnings, and accrued investment manager fees.

November/October 2008 Comparisons

- Net investment income in November 2008 was \$729 million representing a monthly net portfolio return of 4.8% (unaudited).
- Bond market value increase of \$791.5 mm comprised of \$52.9 mm in interest income and \$850.0 mm in net realized/unrealized gains (\$3.5 mm net realized gain), offset by \$13.6 mm in OIM net bond sales (increasing net cash balances accordingly) and by \$97.8 mm in OIM redemptions, representing a monthly net return of 7.3% (unaudited).
- Equity market value decrease of \$184.7 mm comprised largely of \$7.4 mm of dividend income, \$181.9 mm in net realized/unrealized losses (\$4.8 mm net realized loss), \$12.5 mm in OIM redemptions and \$2.5 mm in lower OIM net cash balances, representing a monthly net return of -7.1% (unaudited).
- Net cash balances decreased \$17.5 mm in November 2008 largely due to increased OIM cash balances (\$11.1 mm) and decreased operating cash balances (\$28.6 mm). JPMorgan US Govt. money market fund had 30-day average yield of 1.57% for November 2008 (1.90% for Oct. 08) and 7-day average yield of 1.47% on 11/30/08 (1.86% on 10/31/08).

November 2008/June 2008 FYTD Comparisons

- Net investment income FYTD of a negative \$1,484 million comprised of \$388 mm of investment income, \$1,870 mm of net realized/unrealized losses (\$121 million net realized loss) and \$2 mm in fees, representing a FYTD net portfolio return of -8.3% (unaudited).
- Bond market value decrease of \$656 mm FYTD comprised of \$354 mm in interest income, \$913 mm of net realized/unrealized losses (\$63 mm net realized loss) and \$98 million in OIM redemptions, reduced by \$1 mm in lower OIM cash balances, representing a FYTD net return of -4.0% (unaudited).
- Equity market value decrease of \$937 mm FYTD comprised largely of \$29 mm in dividend income, \$956 mm in realized/unrealized losses (\$58mm net realized loss) and \$13 mm in OIM redemptions, reduced by \$3 mm in lower OIM cash balances, representing a FYTD net return of -29.0% (unaudited).



December 17, 2008

Efficient Frontiers and Preliminary Findings

Investment Committee Meeting
Ohio Bureau of Workers' Compensation

Guy Cooper

Neil Cornell

Louis Finney

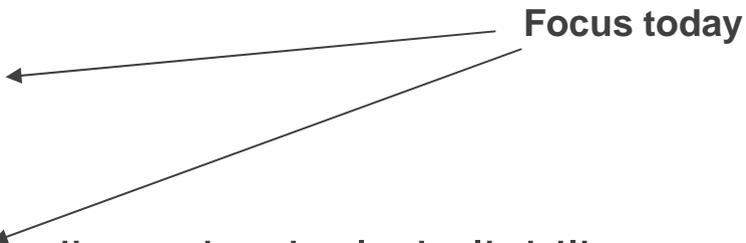
Kristin Finney-Cooke

Purpose of Today's Meeting

1. **Recap of Process and Current Status**
2. **Mean-Variance Frontier Analysis**
3. **Next Steps**
4. **Appendix**

Recap of Process and Current Status

Mercer Approach

- Set objectives, constraints
 - Modeling tools
 - Mean-variance analysis, adjusted to include liability measures
 - Capital Market Simulator
 - Model capital markets from basic economic fundamentals
 - Liability projection tool (Monte Carlo simulation)
 - Incorporate liability projections: claims, premiums, discount rates
 - Produce first round of results, review with staff and Board
 - Adjust modeling or asset allocations to be tested based on feedback, results
 - Test final portfolios and formulate recommendations
 - Work on implementation of final recommendations
- 

Current Investment Policy

State Insurance Fund

	Implemented Policy	Policy Target Allocation	Policy Range	Benchmark
US Common Stock -- Large Cap	20%	12%	9 - 15%	S&P 500 Wilshire 4500/Russell 2500
US Common Stock -- Small/Mid Cap	0%	3%	2 - 4%	
Total US Common Stock	20%	15%		
Non-US Stock -- International unhedged	0%	5%	4 - 6%	MSCI EAFE
Total Non-US Stock	0%	5%		
US Fixed Income -- Long	59%	54%	51 - 57%	Lehman Long Govt/Cred ML High Yield Master Lehman US TIPS 90-Day T-Bill
US Fixed Income -- High Yield	0%	5%	4 - 6%	
US Fixed Income -- TIPS	20%	20%	0 - 10%	
US Fixed Income -- Cash	1%	1%	0 - 6%	
Total Fixed Income	80%	80%		
Total Alternatives	0%	<1%	N/A	Wilshire 5000 + 5%
US Equity vs. Non-US Equity	100:0	75:25		

Asset & Liability Summary

As of June 30, 2008

Ohio Bureau of Workers' Compensation

As of June 30, 2008 (in \$Millions)

	Unpaid Losses		Fund Assets*	Funded Ratio
	Undiscounted	5% Discounted		
State Insurance Fund (SIF)	28,953	15,701	15,944	102%
All Other Funds				
Disabled Workers' Relief Fund (DWRF)	3,828	1,895		
Coal-Workers Pneumoconiosis Fund (CWPF)	98	63		
Public Work-Relief Employees' Compensation Fund (PWREF)	7	4		
Marine Industry Fund (MIF)	6	3		
Self-Insuring Employers Guaranty Fund (SIEGF)	1,625	719		
Administrative Cost Fund (ACF)	2,025	1,098		
Sub Total	7,589	3,782	1,472	39%
Total All Funds	36,542	19,483	17,416	89%

* Based on Asset Reporting Fund Composites

	5% Discounted Unpaid Losses	4% Discounted Unpaid Losses	Duration
SIF (break out by Employer Type)			
Private Employers (PA)	11,918	13,074	
Public Employers (PEC & PES)	2,920	3,268	
Self Insured	184	203	
Health Partnership Program (HPP)	679	748	
Total SIF	15,701	17,293	9.7

Key Points

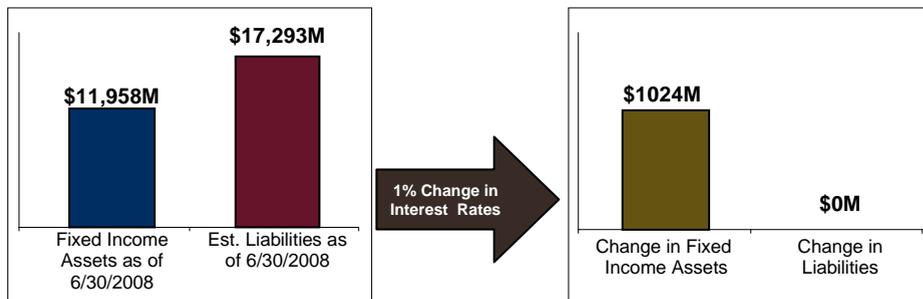
- State Insurance Fund (SIF) contains ~80% of the liabilities and ~92% of the overall assets
- SIF Plan is 102% funded on 5% discount rate basis.
- SIF has a duration of ~10

Volatility – Interest Rate Risk Exposure

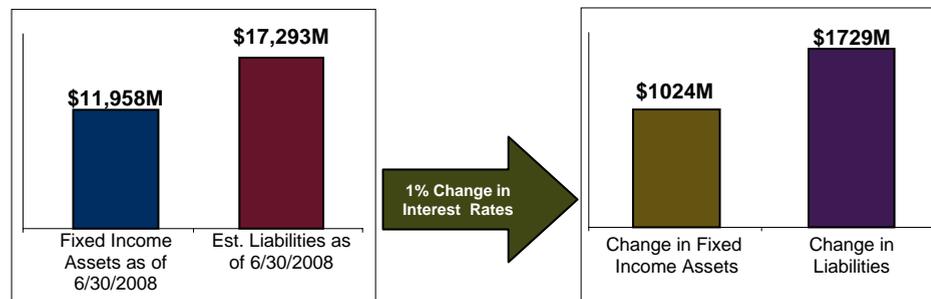
Static vs. Dynamic Discount Rates

Impact of a 1% Change in Interest Rates

Static Discount Rates (e.g. Constant Flat 4%)



Dynamic Discount Rate (e.g. Floats Yearly with Treasury Rate)



If Liabilities are not sensitive to interest rates:

- Current fixed income assets held are overly sensitive to interest rate changes
- Interest rate duration mismatch (the Plan's overall bond portfolio duration is ~8, and liability duration is 0)

If Liabilities are sensitive to interest rate changes:

- Current fixed income assets held are properly matched to liabilities
- The Plan hedges about 59% of the interest rate risk.

Mean Variance Modeling - Static Discount Rate

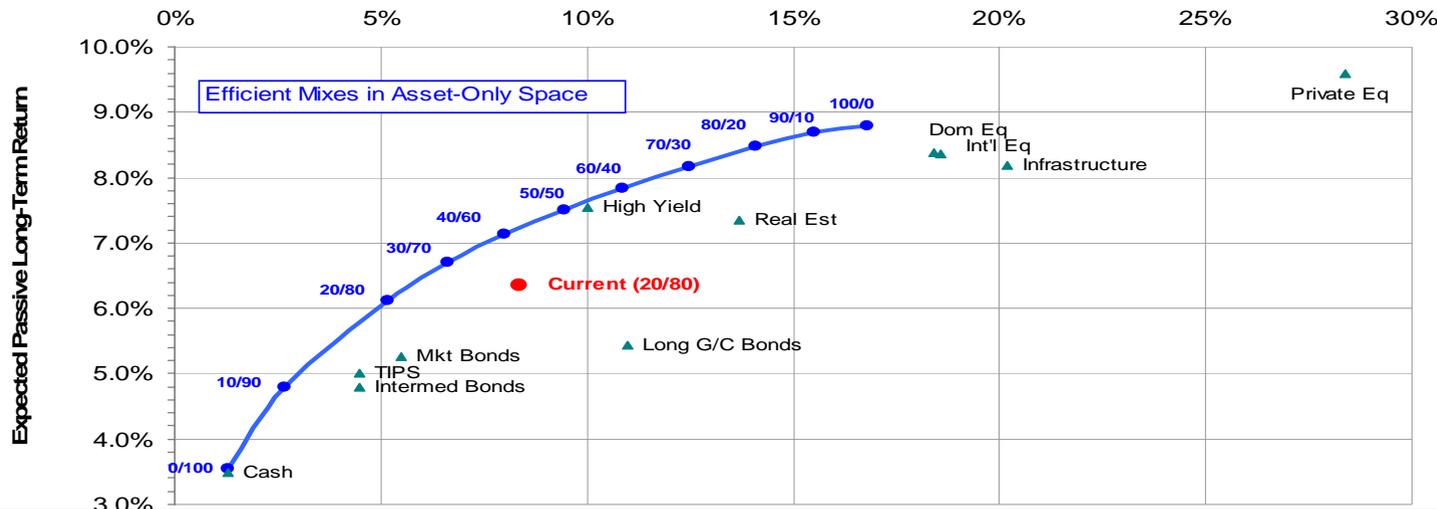
Asset Classes Considered

- Domestic Equities
 - Russell 3000 or Wilshire 5000
- International Equity
 - MSCI ACWI x-US
 - This includes emerging markets
- Real Estate
 - Both private and public (REITS)
- Private Assets
 - Private Equity
 - Infrastructure Equity
- Multiple Fixed Income Classes
 - Market Bond (Lehman Aggregate, Duration 4.5)
 - Intermediate Fixed Income (Duration 3.8)
 - Long Gov't/Credit (Duration 11)
 - Inflation indexed bonds (TIPS, Duration 2.4)
 - High Yield (Duration 4.4)
 - Cash (Duration 0.2)

Frontier – Add Alternatives - Asset Only (Constrained)

Reward Metric: EROA / Risk Metric: Return Volatility

Risk (Standard Deviation of Asset Portfolio)



Constraints:

- Int'l Eq <= US Eq
- High Yield held to 5%
- Alternatives held to 5%

The Objective:

Minimize asset return volatility for a given level of expected return.

Key Insight:

Limiting High Yield to produces additional exposure to TIPS and Aggregate Bonds at lower risk levels and Long Bonds at high risk levels

Limiting Alternatives and Int'l Equity forces exposure to US Equity. Real Estate exposure still exists at lower risk levels.

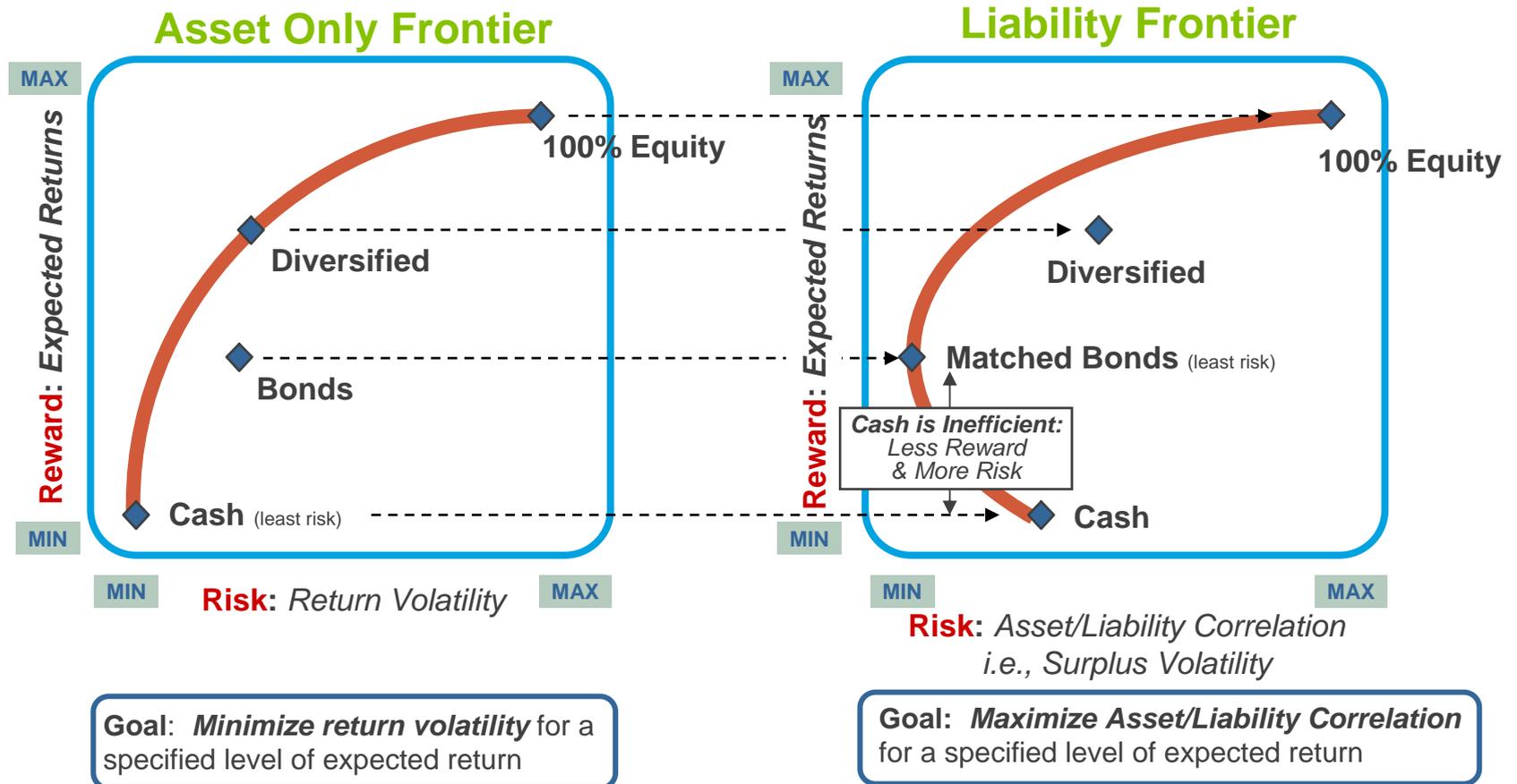
Efficient Mixes in Asset Only Space	0% Eq	6% Eq	15% Eq	25% Eq	35% Eq	45% Eq	55% Eq	65% Eq	75% Eq	85% Eq	95% Eq	Current Target
	100% FI	90% FI	80% FI	70% FI	60% FI	50% FI	40% FI	30% FI	20% FI	10% FI	0% FI	
	0% Alt	4% Alt	5% Alt									
Equity												
US Equity - All Cap	0%	3%	8%	13%	18%	23%	28%	33%	38%	43%	48%	15%
World ex-U.S.	0%	3%	8%	13%	18%	23%	28%	33%	38%	43%	48%	5%
Total - Public Equity	0%	6%	15%	25%	35%	45%	55%	65%	75%	85%	95%	20%
Public Equity: (US Equity : Non-US Equity)	n/a	50:50	50:50	50:50	50:50	50:50	50:50	50:50	50:50	50:50	50:50	75:25
Fixed Income												
Cash (Dur = 0.2)	97%	57%	4%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Intermediate G/C (Dur = 3.8)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Aggregate (Dur = 4.5)	3%	13%	26%	31%	34%	38%	35%	19%	0%	0%	0%	0%
Inflation Indexed Bond (IIB)	0%	15%	45%	34%	20%	7%	0%	0%	0%	0%	0%	20%
Long G/C (Dur = 11)	0%	0%	0%	0%	0%	0%	0%	6%	15%	5%	0%	54%
High Yield	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%	0%	5%
Total - Fixed Income	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%	80%
Est. Weighted Average Duration of US Fixed Income	0.3	1.4	3.1	3.5	3.8	4.2	4.5	5.8	9.3	7.6	n/a	8.3
Alternatives												
Private Equity - Total	0%	1%	2%	4%	5%	5%	5%	5%	5%	5%	5%	0%
Real Estate - comb	0%	3%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Infrastructure	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%
Total - Alternatives	0%	4%	5%	0%								
Total	100%											
Total Portfolio Statistics												
Long-Term Expected Passive Annual Return	3.5%	4.8%	6.1%	6.7%	7.1%	7.5%	7.8%	8.2%	8.5%	8.7%	8.8%	6.3%
Standard Deviation of Returns	1.3%	2.7%	5.2%	6.6%	8.0%	9.4%	10.9%	12.5%	14.1%	15.5%	16.8%	8.4%

Mean Variance Modeling - Dynamic Discount Rate

Strategic Asset Allocation for OBWC

Portfolio Efficiency When Liabilities Are Considered

Efficient Portfolios: Maximum Expected Return for Given Level of Risk

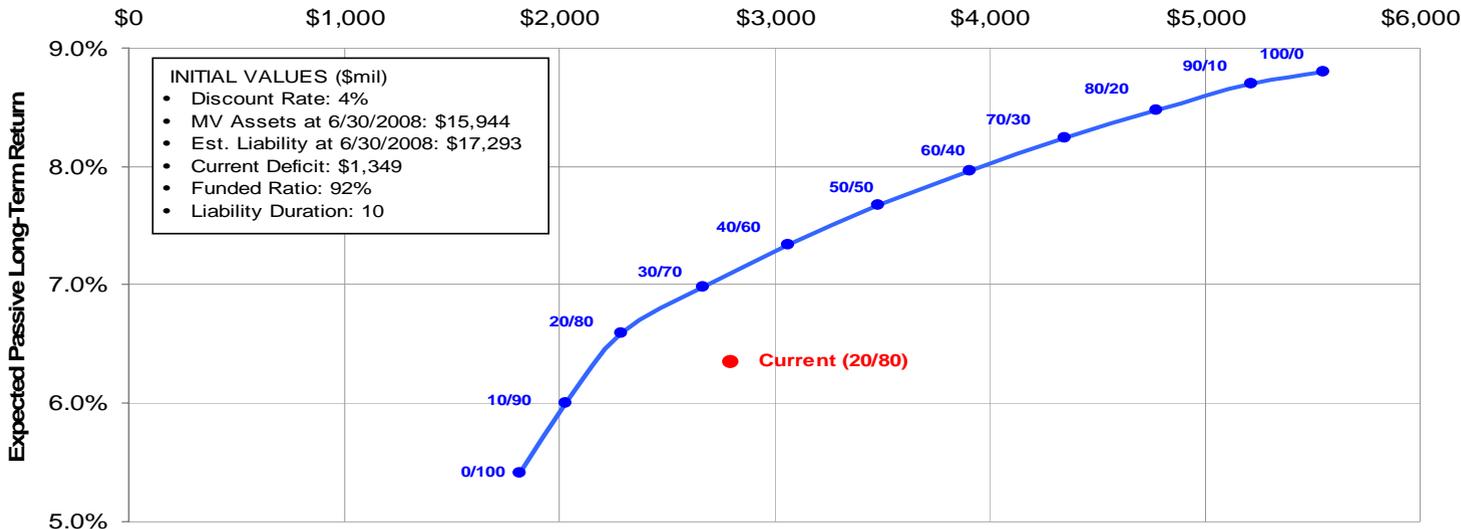


When liabilities are considered, the efficient mixes are not the same as those that are efficient in an asset-only framework... simply due to the change in the definition of "risk."

Frontier – Add Alternatives - Asset / Liability Basis (Constrained)

Reward Metric: EROA / Risk Metric: Surplus VaR₅ + Current Deficit

Projected Deficit at 5th Percentile in One Year (\$ mil)



Constraints:

- Int'l Eq < US Eq
- High Yield held to 5%
- Alternatives held to 5%

The Objective

Minimize the VaR (value-at-risk) for a given level of expected return.

Definition of VaR₅

The \$ amount of surplus that could be lost in 1 year at a 5% probability

Efficient Mixes in Asset & Liability Space	0% Eq	5% Eq	15% Eq	25% Eq	35% Eq	45% Eq	55% Eq	65% Eq	75% Eq	85% Eq	95% Eq	Current Target
	100% FI	90% FI	80% FI	70% FI	60% FI	50% FI	40% FI	30% FI	20% FI	10% FI	0% FI	
	0% Alt	5% Alt										
Equity												
US Equity - All Cap	0%	3%	8%	13%	18%	23%	28%	33%	37%	43%	48%	15%
World ex-U.S.	0%	3%	8%	13%	18%	23%	28%	33%	37%	43%	48%	5%
Total - Public Equity	0%	5%	15%	25%	35%	45%	55%	65%	75%	85%	95%	20%
Public Equity: (US Equity : Non-US Equity)	n/a	50:50	50:50	50:50	50:50	50:50	50:50	50:50	50:50	50:50	50:50	75:25
Fixed Income												
Cash (Dur = 0.2)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Intermediate G/C (Dur = 3.8)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Aggregate (Dur = 4.5)	37%	13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inflation Indexed Bond (IIB)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%
Long G/C (Dur = 11)	63%	72%	75%	65%	55%	45%	35%	25%	15%	5%	0%	54%
High Yield	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%	0%	5%
Total - Fixed Income	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%	80%
Est. Weighted Average Duration of US Fixed Income	8.6	9.7	10.6	10.5	10.4	10.3	10.2	9.9	9.4	7.6	n/a	8.3
Alternatives												
Private Equity - Total	0%	1%	5%	5%	5%	5%	5%	5%	5%	5%	5%	0%
Real Estate - comb	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Infrastructure	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total - Alternatives	0%	5%	0%									
Total	100%	100.0%										
Total Portfolio Statistics												
Long-Term Expected Passive Annual Return	5.4%	6.0%	6.6%	7.0%	7.3%	7.7%	8.0%	8.2%	8.5%	8.7%	8.8%	6.3%
Standard Deviation of Returns	8.9%	9.3%	9.8%	9.8%	10.2%	10.9%	11.8%	12.9%	14.1%	15.5%	16.8%	8.4%
Surplus VaR5 -- 1-Year (\$mil)	\$466	\$679	\$942	\$1,317	\$1,719	\$2,138	\$2,559	\$2,998	\$3,423	\$3,870	\$4,206	\$1,233
% Increase (Decrease) in Surplus VaR5 vs. Current	(62%)	(45%)	(24%)	7%	39%	73%	108%	143%	178%	214%	241%	n/a
Tracking Error vs Liability (Target Liability)	2.7%	3.0%	4.5%	6.1%	7.8%	9.5%	11.3%	13.1%	14.8%	16.7%	18.1%	5.3%
% of Liability Interest Rate Risk Hedged	79%	78%	76%	66%	56%	45%	35%	25%	15%	5%	0%	59%
Correlation of Liability (Target Liability) to Portfolio	0.98	0.97	0.91	0.83	0.73	0.61	0.50	0.40	0.31	0.24	0.19	0.88

Key Points

- High Yields and Alternatives are quickly taken to their maximum limits
- Int'l Equity favored over US Equity
- Long Bonds are favored in a A/L context

Summary and Next Steps

Summary

- Results of Mean-Variance Analysis
 - Common findings under Static and Dynamic Discount Rate Setting
 - High Yield bonds and Alternative investments are attractive
 - International Equity is favored over US Equity
 - Under Static Discount Rate Assumption
 - Shorter Duration Aggregate Bonds and TIPS are favored
 - Under Dynamic Discount Rate Assumption
 - TIPS are not efficient
 - Shorter Duration Aggregate Bonds quickly become inefficient as you increase equity exposure
 - Long Bonds efficient
- Portfolios Proposed for Next Stage of Analysis: Eight Allocations
 - Static Discount Rate:
 - Current Allocation (20%), 30%, 40%, 50% Equity
 - Dynamic Discount Rate:
 - Current Allocation (20%), 30%, 40%, 50% Equity

Proposed Alternative Asset Mixes

	Static Discount Rate					Dynamic Discount Rate				
	Implemented Policy	Current Target	Move to Aggregate & Increase Equity by 10%	Increase Equity by 20%	Increase Equity by 30%	Implemented Policy	Current Target	Drop TIPS & Increase Equity by 10%	Increase Equity by 20%	Increase Equity by 30%
Equity : Fixed income : Alternatives	20:80:0	20:80:0	25:70:5	35:60:5	45:50:5	20:80:0	20:80:0	25:70:5	35:60:5	45:50:5
Public Equity: (US Equity : Non-US Equity)	100:0	75:25	50:50	50:50	50:50	100:0	75:25	50:50	50:50	50:50
Weighted Duration of US Fixed Income	8	8	3	4	4	8	8	14	14	14
ALLOCATION BY ASSET CLASS										
US Equity -- All Cap	20%	15%	12.5%	17.5%	22.5%	20%	15%	12.5%	17.5%	22.5%
Non-US Equities - World ex-U.S.		5%	12.5%	17.5%	22.5%		5%	12.5%	17.5%	22.5%
Total Allocation to Public Equity	20%	20%	25%	35%	45%	20%	20%	25%	35%	45%
US Fixed Income -- Cash (Dur 0.2)	1%	1%				1%	1%			
US Fixed Income -- Intermediate (Dur 3.8)										
US Fixed Income -- Aggregate (Dur 4.5)			31%	35%	38%					
US Fixed Income -- Inflation Indexed Bond	20%	20%	34%	20%	7%	20%	20%			
US Fixed Income -- Long Gov/Credit (Dur 11)	59%	54%				59%	54%	65%	55%	45%
US Fixed Income -- High Yield		5%	5%	5%	5%		5%	5%	5%	5%
Total Allocation to Fixed Income	80%	80%	70%	60%	50%	80%	80%	70%	60%	50%
Private Equity - Total			4%	5%	5%			5%	5%	5%
Real Estate - Private Infrastructure			1%							
Total Allocation to Alternative Investments	0%	0%	5%	5%	5%	0%	0%	5%	5%	5%
STATISTICS										
Long-Term Expected Passive Annual Return	6.22%	6.35%	6.71%	7.14%	7.51%	6.22%	6.35%	6.99%	7.34%	7.67%
Standard Deviation of Returns	8.77%	8.36%	6.62%	8.00%	9.44%	8.77%	8.36%	9.84%	10.20%	10.86%
Surplus VaR _s -- 1 Year (\$mil)						\$1,102 (11%)	\$1,233 n/a	\$1,317 7%	\$1,719 39%	\$2,138 73%
% Increase (Decrease) in Surplus VaR5 vs. Compared Mix										
Tracking Error vs Liability (PBO)						5.0%	5.3%	6.1%	7.8%	9.5%
% of Liability Interest Rate Risk Hedged						64%	59%	66%	56%	45%
Correlation of PBO to Portfolio						0.89	0.88	0.83	0.73	0.61
Equity Beta	0.20	0.23	0.37	0.48	0.58	0.20	0.23	0.35	0.44	0.54
Duration	6.97	8.26	2.42	2.26	2.09	6.97	8.26	9.28	7.89	6.49
Liquidity	9.45	9.34	8.78	8.69	8.59	9.45	9.34	8.77	8.71	8.65

Key Metrics

When Analyzing the Asset Mix Decisions

- Metrics for Analysis
 - Probability of reaching 1.0, 1.25 and 1.35 Funding Ratio over 3, 5, 10, and 20 years
 - Stability of Funding Ratio
 - Year-to-year change of surplus
 - Dispersion of Funding Ratio at point in time
 - Median vs. 95th percentile (very bad outcomes)
 - Asset Allocation Characteristics
 - Expected Return
 - Volatility
 - Liquidity Score

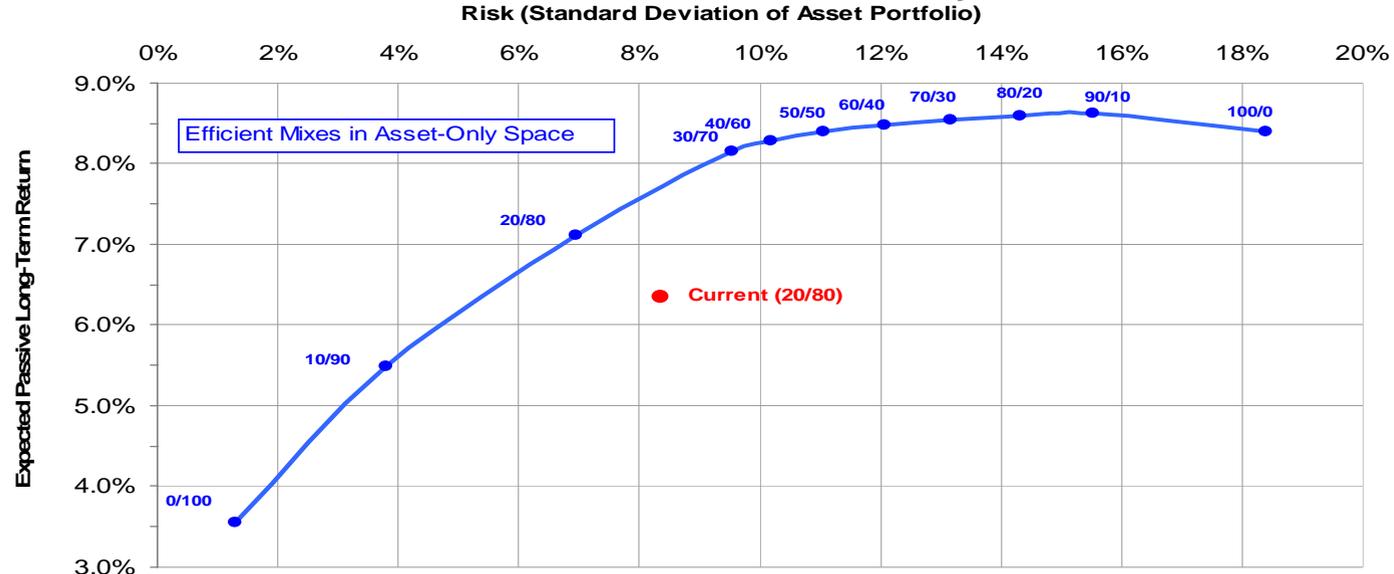
Next Steps

- Convert liability projections
- Conduct Stochastic Analysis
 - Build capital market simulation file
 - Integrate liability projections and capital market file into projection tools
 - Analyze the agree upon different allocations under two discount rate policies
- Summarize results, build presentation, and review results with Staff

Appendix

Frontier – Current Asset Classes - Asset Only (Unconstrained)

Reward Metric: EROA / Risk Metric: Return Volatility



The Objective:
Minimize asset return volatility for a given level of expected return.

Key Insight:
Greatest efficiency, i.e., lowest return volatility, comes from well-diversified portfolios.

International Equity is favored over Domestic Equity

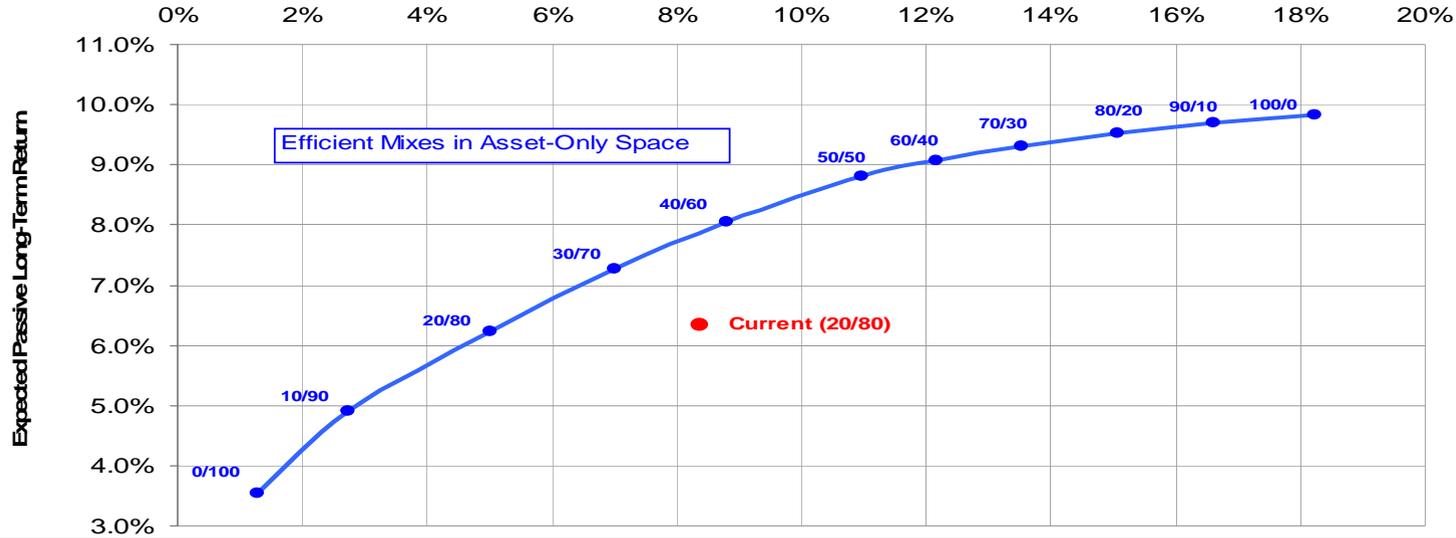
Efficient lower volatility portfolios include Aggregate bonds and TIPS due to the lower return volatility of shorter bonds.

Efficient Mixes in Asset-Only Space	0% Eq	10% Eq	20% Eq	30% Eq	40% Eq	50% Eq	60% Eq	70% Eq	80% Eq	90% Eq	100% Eq	Current Target
	100% FI	90% FI	80% FI	70% FI	60% FI	50% FI	40% FI	30% FI	20% FI	10% FI	0% FI	
Equity												
US Equity - All Cap	0%	0%	0%	0%	0%	7%	15%	24%	32%	40%	0%	15%
World ex-U.S.	0%	10%	20%	30%	40%	43%	45%	47%	48%	50%	100%	5%
Total - Public Equity	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	20%
Public Equity: (US Equity : Non-US Equity)	n/a	0:100	0:100	0:100	0:100	14:86	26:74	34:66	40:60	44:56	0:100	75:25
Fixed Income												
Cash (Dur = 0.2)	97%	39%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Intermediate G/C (Dur = 3.8)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Aggregate (Dur = 4.5)	3%	14%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inflation Indexed Bond (IIB)	0%	18%	20%	0%	0%	0%	0%	0%	0%	0%	0%	20%
Long G/C (Dur = 11)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	54%
High Yield	0%	19%	42%	70%	60%	50%	40%	30%	20%	10%	0%	5%
Total - Fixed Income	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%	80%
Est. Weighted Average Duration of US Fixed Income	0.3	2.2	3.9	4.4	4.4	4.4	4.4	4.4	4.4	4.4	n/a	8.3
Total	100%											
Total Portfolio Statistics												
Long-Term Expected Passive Annual Return	3.5%	5.5%	7.1%	8.2%	8.3%	8.4%	8.5%	8.5%	8.6%	8.6%	8.4%	6.3%
Standard Deviation of Returns	1.3%	3.8%	7.0%	9.5%	10.2%	11.1%	12.1%	13.2%	14.3%	15.5%	18.4%	8.4%

Frontier – Add Alternatives - Asset Only (Unconstrained)

Reward Metric: EROA / Risk Metric: Return Volatility

Risk (Standard Deviation of Asset Portfolio)



The Objective:
Minimize asset return volatility for a given level of expected return.

Key Insight:
Alternatives do not completely dominate the public equity within risky asset classes

International Equity is favored over US Equity

Real Estate is favored in lower overall equity exposure allocation

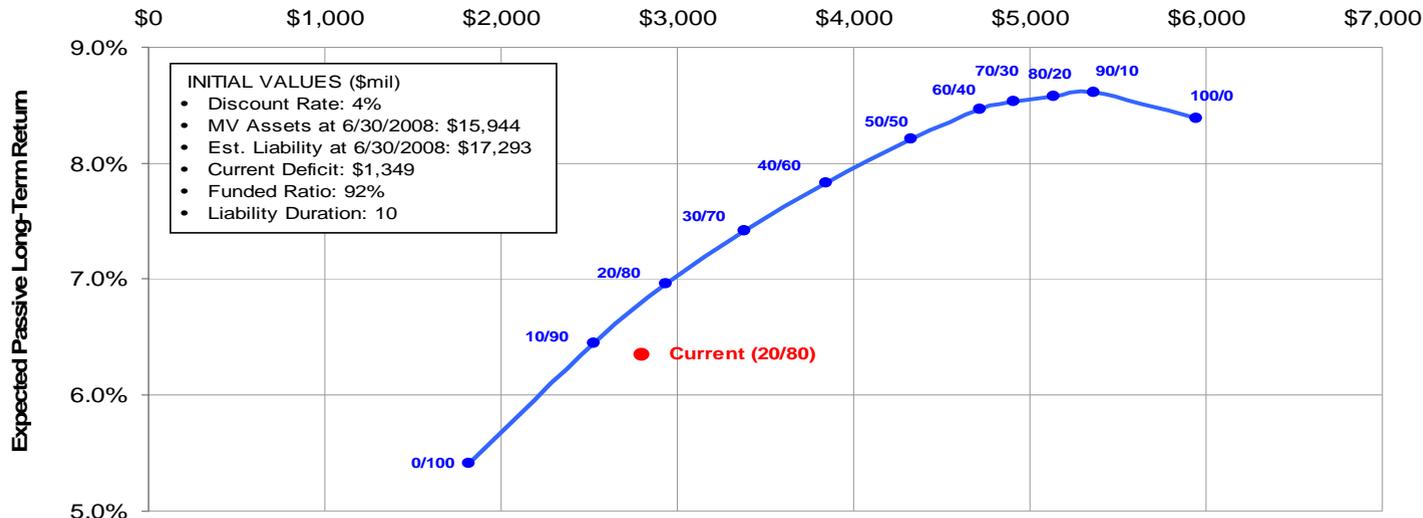
Efficient lower volatility portfolios include Aggregate bonds and TIPS due to the lower return volatility of shorter bonds.

Efficient Mixes in Asset Only Space	0% Eq 100% FI 0% Alt	6% Eq 90% FI 4% Alt	11% Eq 80% FI 9% Alt	17% Eq 70% FI 14% Alt	22% Eq 60% FI 18% Alt	28% Eq 50% FI 22% Alt	30% Eq 40% FI 29% Alt	33% Eq 30% FI 37% Alt	36% Eq 20% FI 45% Alt	38% Eq 10% FI 52% Alt	41% Eq 0% FI 59% Alt	Current Target
Equity												
US Equity - All Cap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%
World ex-U.S.	0%	6%	11%	17%	22%	28%	30%	33%	36%	38%	41%	5%
Total - Public Equity	0%	6%	11%	17%	22%	28%	30%	33%	36%	38%	41%	20%
Public Equity: (US Equity : Non-US Equity)	n/a	0:100	0:100	0:100	0:100	0:100	0:100	0:100	0:100	0:100	0:100	75:25
Fixed Income												
Cash (Dur = 0.2)	97%	59%	19%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Intermediate G/C (Dur = 3.8)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Aggregate (Dur = 4.5)	3%	10%	16%	15%	10%	0%	0%	0%	0%	0%	0%	0%
Inflation Indexed Bond (IIB)	0%	11%	26%	22%	1%	0%	0%	0%	0%	0%	0%	20%
Long G/C (Dur = 11)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	54%
High Yield	0%	10%	20%	33%	49%	50%	40%	30%	20%	10%	0%	5%
Total - Fixed Income	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%	80%
Est. Weighted Average Duration of US Fixed Income	0.3	1.4	2.8	3.8	4.4	4.4	4.4	4.4	4.4	4.4	n/a	8.3
Alternatives												
Private Equity - Total	0%	1%	2%	4%	5%	13%	19%	26%	32%	38%	45%	0%
Real Estate - comb	0%	3%	7%	10%	12%	1%	0%	0%	0%	0%	0%	0%
Infrastructure	0%	0%	0%	0%	1%	8%	10%	11%	12%	14%	15%	0%
Total - Alternatives	0%	4%	9%	14%	18%	22%	29%	37%	45%	52%	59%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total Portfolio Statistics												
Long-Term Expected Passive Annual Return	3.5%	4.9%	6.2%	7.3%	8.1%	8.8%	9.1%	9.3%	9.5%	9.7%	9.8%	6.3%
Standard Deviation of Returns	1.3%	2.7%	5.0%	7.0%	8.8%	11.0%	12.2%	13.5%	15.1%	16.6%	18.2%	8.4%

Frontier – Current Asset Classes - Asset / Liability Basis (Unconstrained)

Reward Metric: EROA / Risk Metric: Surplus VaR₅ + Current Deficit

Projected Deficit at 5th Percentile In One Year (\$ mil)



The Objective
Minimize the VaR (value-at-risk) for a given level of expected return.

Definition of VaR
The \$ amount of surplus that could be lost in 1 year at a 5% probability

Efficient Mixes in Asset & Liability Space	0% Eq	10% Eq	20% Eq	30% Eq	40% Eq	50% Eq	60% Eq	70% Eq	80% Eq	90% Eq	100% Eq	Current Target
	100% FI	90% FI	80% FI	70% FI	60% FI	50% FI	40% FI	30% FI	20% FI	10% FI	0% FI	
	0% Alt											
Equity												
US Equity - All Cap	0%	0%	5%	11%	16%	21%	28%	36%	45%	51%	0%	15%
World ex-U.S.	0%	10%	15%	20%	24%	29%	32%	34%	35%	39%	100%	5%
Total - Public Equity	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	20%
Public Equity: (US Equity : Non-US Equity)	n/a	0:100	25:75	35:65	40:60	43:57	47:53	52:48	56:44	57:43	0:100	75:25
Fixed Income												
Cash (Dur = 0.2)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Intermediate G/C (Dur = 3.8)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Aggregate (Dur = 4.5)	37%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inflation Indexed Bond (IIB)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%
Long G/C (Dur = 11)	63%	68%	53%	38%	24%	10%	0%	0%	0%	0%	0%	54%
High Yield	0%	22%	27%	32%	36%	40%	40%	30%	20%	10%	0%	5%
Total - Fixed Income	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%	80%
Est. Weighted Average Duration of US Fixed Income	8.6	9.4	8.8	8.0	7.1	5.7	4.4	4.4	4.4	4.4	n/a	8.3
Total	100%	100.0%										
Total Portfolio Statistics												
Long-Term Expected Passive Annual Return	5.4%	6.4%	7.0%	7.4%	7.8%	8.2%	8.5%	8.5%	8.6%	8.6%	8.4%	6.3%
Standard Deviation of Returns	8.9%	9.1%	8.9%	9.1%	9.9%	11.0%	12.2%	13.3%	14.5%	15.7%	18.4%	8.4%
Surplus VaR5 – 1-Year (\$mil)	\$466	\$1,177	\$1,591	\$2,036	\$2,497	\$2,980	\$3,373	\$3,564	\$3,784	\$4,014	\$4,600	\$1,233
% Increase (Decrease) in Surplus VaR5 vs. Current	(62%)	(5%)	29%	65%	103%	142%	174%	189%	207%	226%	273%	n/a
Tracking Error vs Liability (Target Liability)	2.7%	4.0%	5.9%	7.9%	9.9%	12.0%	13.7%	14.7%	15.8%	16.9%	20.4%	5.3%
% of Liability Interest Rate Risk Hedged	79%	69%	54%	39%	25%	10%	0%	0%	0%	0%	0%	59%
Correlation of Liability (Target Liability) to Portfolio	0.98	0.93	0.84	0.70	0.55	0.40	0.30	0.27	0.25	0.23	0.10	0.88

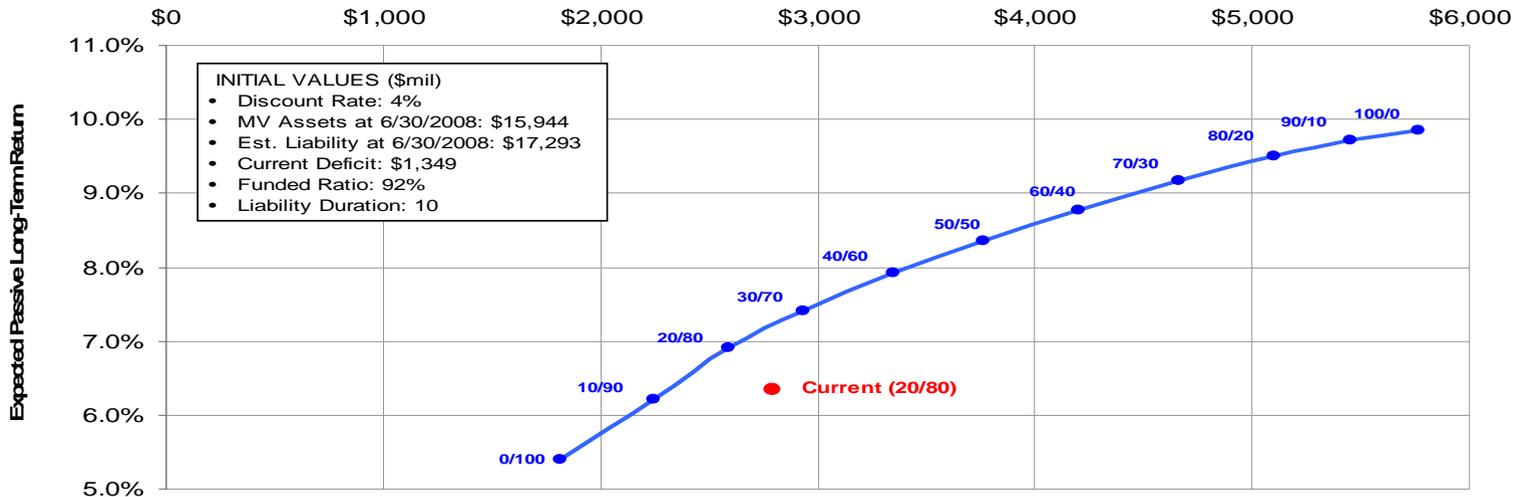
Key Points

- The efficient frontier demonstrates the tradeoff between risk and return. A reduction in volatility can be achieved at the expense of higher return.

Frontier – Add Alternatives - Asset / Liability Basis (Unconstrained)

Reward Metric: EROA / Risk Metric: Surplus VaR₅ + Current Deficit

Projected Deficit at 5th Percentile in One Year (\$ mil)



The Objective

Minimize the VaR (value-at-risk) for a given level of expected return.

Definition of VaR

The \$ amount of surplus that could be lost in 1 year at a 5% probability

Efficient Mixes in Asset & Liability Space	0% Eq 100% FI 0% Alt	5% Eq 90% FI 5% Alt	9% Eq 80% FI 11% Alt	13% Eq 70% FI 17% Alt	16% Eq 60% FI 24% Alt	19% Eq 50% FI 30% Alt	23% Eq 40% FI 37% Alt	26% Eq 30% FI 44% Alt	30% Eq 20% FI 50% Alt	32% Eq 10% FI 57% Alt	35% Eq 0% FI 65% Alt	Current Target
Equity												
US Equity - All Cap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%
World ex-U.S.	0%	5%	9%	13%	16%	19%	23%	26%	30%	32%	35%	5%
Total - Public Equity	0%	5%	9%	13%	16%	19%	23%	26%	30%	32%	35%	20%
Public Equity: (US Equity : Non-US Equity)	n/a	0:100	0:100	0:100	0:100	0:100	0:100	0:100	0:100	0:100	0:100	75:25
Fixed Income												
Cash (Dur = 0.2)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Intermediate G/C (Dur = 3.8)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Aggregate (Dur = 4.5)	37%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Inflation Indexed Bond (IIB)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%
Long G/C (Dur = 11)	63%	74%	65%	55%	44%	34%	24%	13%	3%	0%	0%	54%
High Yield	0%	13%	15%	15%	16%	16%	16%	17%	17%	10%	0%	5%
Total - Fixed Income	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%	80%
Est. Weighted Average Duration of US Fixed Income	8.6	9.8	9.7	9.5	9.3	8.9	8.3	7.4	5.5	4.4	n/a	8.3
Alternatives												
Private Equity - Total	0%	1%	7%	12%	16%	21%	26%	31%	35%	41%	47%	0%
Real Estate - comb	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Infrastructure	0%	1%	4%	6%	8%	9%	11%	13%	15%	16%	17%	0%
Total - Alternatives	0%	5%	11%	17%	24%	30%	37%	44%	50%	57%	65%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100.0%
Total Portfolio Statistics												
Long-Term Expected Passive Annual Return	5.4%	6.2%	6.9%	7.4%	7.9%	8.4%	8.8%	9.2%	9.5%	9.7%	9.9%	6.3%
Standard Deviation of Returns	8.9%	9.4%	9.3%	9.5%	10.2%	11.1%	12.4%	13.9%	15.4%	17.0%	18.6%	8.4%
Surplus VaR5 -- 1-Year (\$mil)	\$466	\$899	\$1,236	\$1,582	\$1,999	\$2,417	\$2,855	\$3,314	\$3,754	\$4,107	\$4,416	\$1,233
% Increase (Decrease) in Surplus VaR5 vs. Current	(62%)	(27%)	0%	28%	62%	96%	132%	169%	205%	233%	258%	n/a
Tracking Error vs Liability (Target Liability)	2.7%	3.3%	5.1%	6.9%	8.9%	10.8%	12.8%	14.9%	16.8%	18.6%	20.1%	5.3%
% of Liability Interest Rate Risk Hedged	79%	76%	66%	56%	45%	35%	24%	14%	3%	0%	0%	59%
Correlation of Liability (Target Liability) to Portfolio	0.98	0.96	0.88	0.78	0.64	0.52	0.40	0.29	0.21	0.17	0.15	0.88

Key Points

- The efficient frontier demonstrates the tradeoff between risk and return. A reduction in volatility can be achieved at the expense of higher return.

Frontier – Add Alternatives - Asset Only (Constrained)

Additional Portfolio Statistics, slide 10

Efficient Mixes in Asset Only Space	0% Eq	6% Eq	15% Eq	25% Eq	35% Eq	45% Eq	55% Eq	65% Eq	75% Eq	85% Eq	95% Eq	Current Target
	100% FI	90% FI	80% FI	70% FI	60% FI	50% FI	40% FI	30% FI	20% FI	10% FI	0% FI	
	0% Alt	4% Alt	5% Alt									
Beta	0.03	0.13	0.25	0.37	0.48	0.58	0.68	0.76	0.84	0.95	1.02	0.23
Duration	0.32	1.20	2.48	2.42	2.26	2.09	1.79	1.73	1.85	0.73	0.00	6.59
Liquidity	9.88	9.25	8.89	8.78	8.69	8.59	8.52	8.50	8.47	8.41	8.46	9.34

Frontier – Add Alternatives - Asset Only (Constrained)

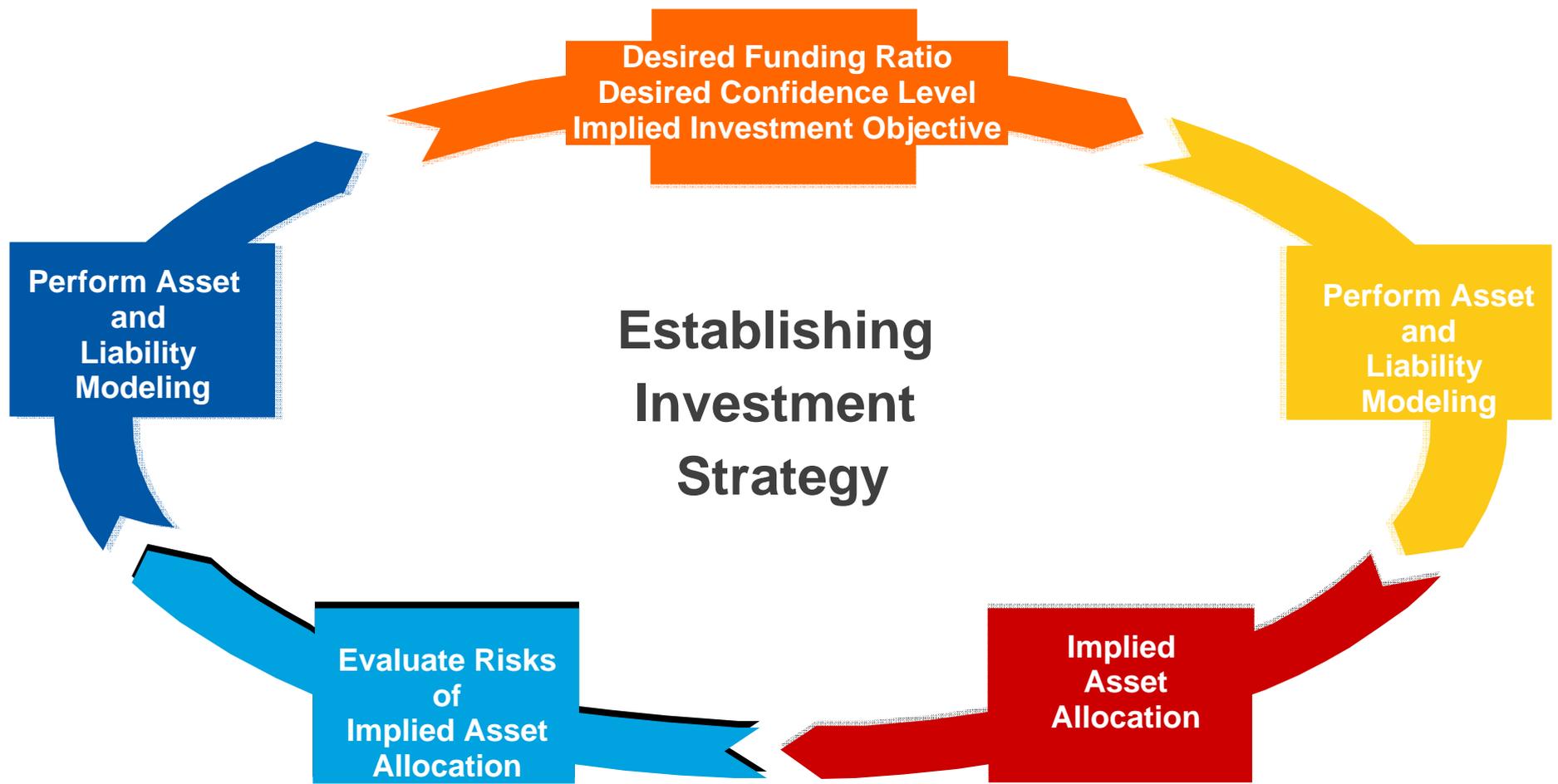
Additional Portfolio Statistics, slide 13

Efficient Mixes in Asset & Liability Space	0% Eq	5% Eq	15% Eq	25% Eq	35% Eq	45% Eq	55% Eq	65% Eq	75% Eq	85% Eq	95% Eq	Current Target
	100% FI	90% FI	80% FI	70% FI	60% FI	50% FI	40% FI	30% FI	20% FI	10% FI	0% FI	
	0% Alt	5% Alt	5% Alt	5% Alt	5% Alt	5% Alt	5% Alt	5% Alt	5% Alt	5% Alt	5% Alt	
Beta	0.04	0.14	0.24	0.35	0.44	0.54	0.64	0.75	0.84	0.94	1.02	0.23
Duration	8.60	8.69	8.44	7.34	6.24	5.14	4.06	2.94	1.87	0.75	0.00	6.64
Liquidity	9.43	8.87	8.83	8.77	8.71	8.65	8.59	8.53	8.48	8.41	8.46	9.34
Expected Surplus Gain	\$231	\$337	\$441	\$503	\$564	\$624	\$684	\$746	\$805	\$867	\$911	\$381

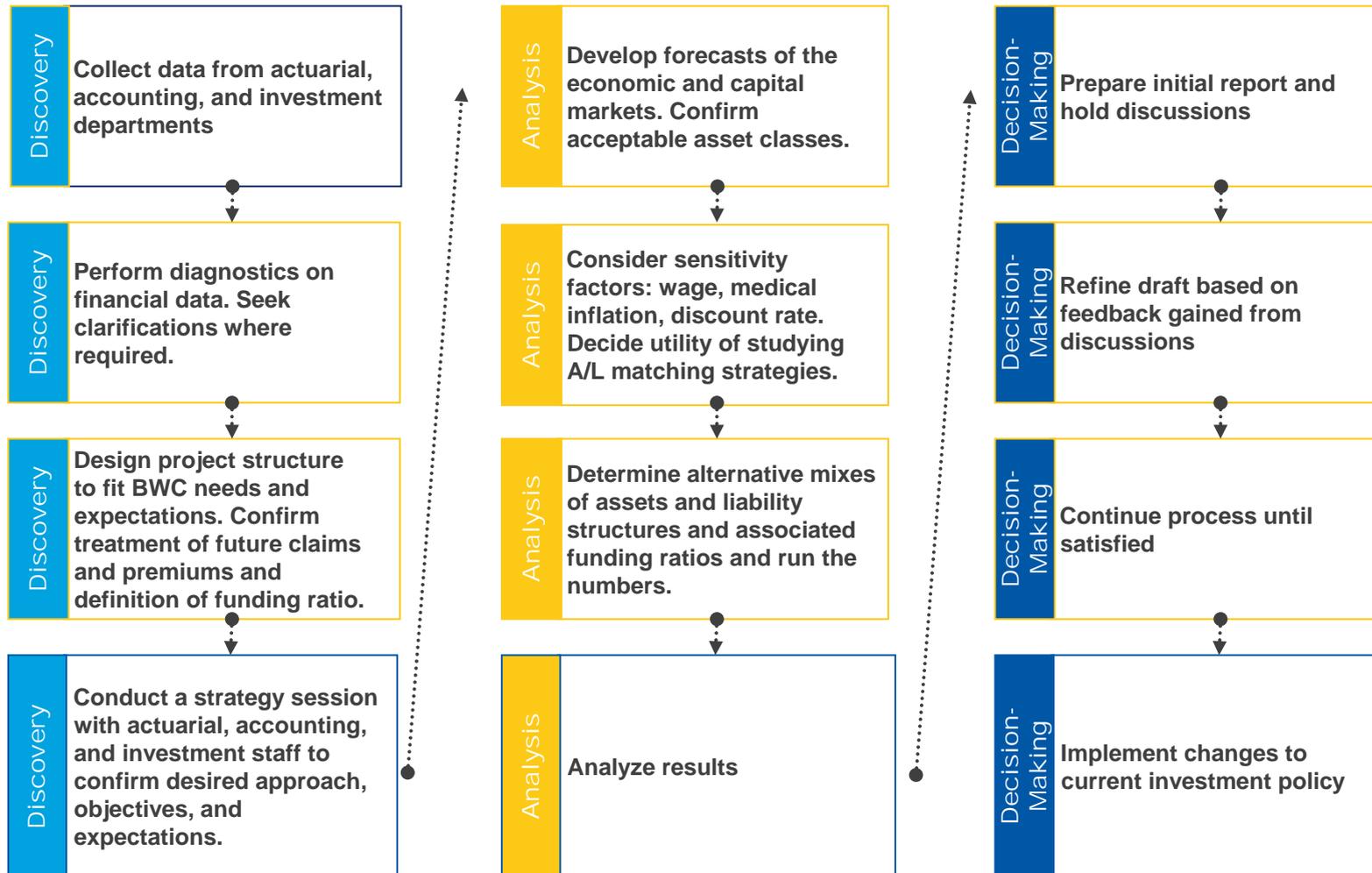
Mean-Variance Assumptions

	Geometric Return	Arithmetic Return	Standard Deviation	Beta	Duration	Liquidity					
Domestic Equity	8.4%	9.9%	18.6%	1.00	0.0	9.0					
International Equity	8.4%	9.9%	18.4%	1.00	0.0	8.8					
Intermediate Bonds	4.8%	4.9%	4.5%	0.00	3.6	9.4					
Mkt Bonds (Lehman Agg)	5.3%	5.4%	5.5%	0.10	4.8	9.3					
Long Govt/Credit (11 yrs)	5.4%	6.0%	11.0%	0.00	14.0	9.5					
TIPS	5.0%	5.1%	4.5%	0.00	2.4	9.7					
Cash	3.5%	3.5%	1.3%	0.00	0.1	10.0					
Real Estate [1]	7.3%	8.2%	13.7%	0.75	0.0	4.5					
Private Equity	9.6%	13.0%	28.4%	1.35	0.0	0.0					
Infrastructure	8.2%	10.0%	20.2%	1.10	0.0	0.0					
High Yield	7.5%	8.0%	10.0%	0.50	4.4	7.5					
Inflation	2.8%	2.8%	1.3%	--	--	--					
	Dom Eq	Intl Eq	Inmd FI	Mkt FI	Long FI	TIPS	Cash	Real Estate	Private Eq	Infrastr	High Yield
Domestic Equity	1.00										
International Equity	0.70	1.00									
Intermediate Bonds	0.20	0.10	1.00								
Mkt Bonds (Lehman Agg)	0.20	0.10	0.95	1.00							
Long Duration (14 yrs)	0.20	0.10	0.90	0.95	1.00						
TIPS	0.15	0.10	0.60	0.60	0.60	1.00					
Cash	0	0.0	0.25	0.10	0.10	0.30	1.00				
Real Estate [1]	0.60	0.40	0.20	0.30	0.20	0.30	0.10	1.00			
Private Equity	0.70	0.30	0.10	0.20	0.20	0.15	0	0.50	1.00		
Infrastructure	0.60	0.28	0.18	0.23	0.20	0.20	0	0.75	0.5	1.00	
High Yield	0.60	0.15	0.45	0.50	0.45	0.50	0.10	0.35	0.40	0.38	1.00
[1] Combination of REITS and private real estate.											

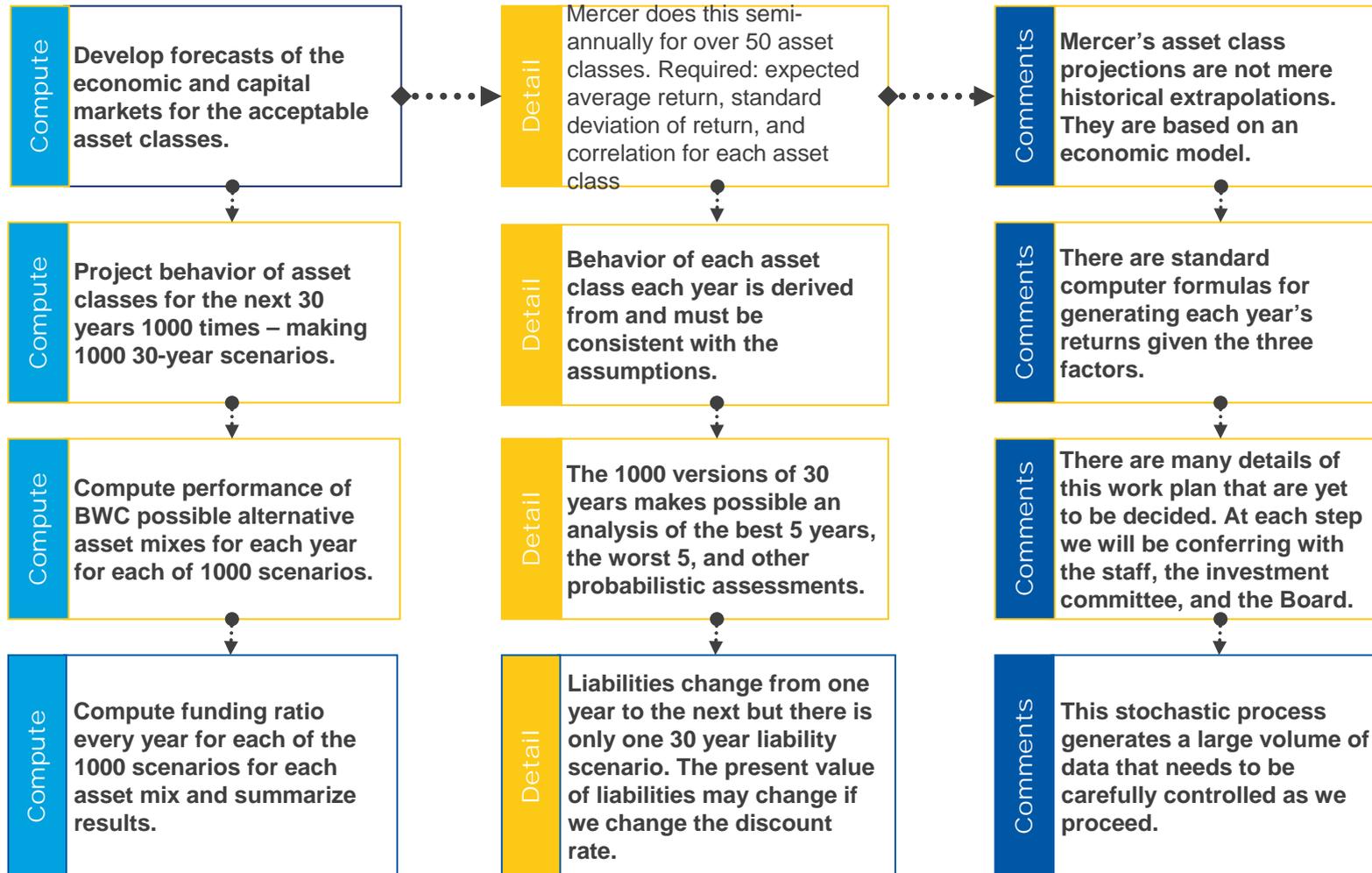
Overview of Process - Setting Investment Strategy



Work Plan – Strategic Study of Assets and Liabilities



Overview of How the Stochastic Simulation Works



MERCER



MARSH MERCER KROLL
GUY CARPENTER OLIVER WYMAN



Annual BWC Custodial Services Review



December 17, 2008

Prepared by BWC Investment Division

The Ohio Treasurer of State (TOS), as BWC's statutory custodian per the Ohio Revised Code (ORC), assigns the sub-custodian for the BWC through an RFP process every two years.

- J.P. Morgan, as current sub-custodian to the TOS, is responsible for safekeeping, transaction/trade settlement/income processing, asset reconciliation, and income/position reporting of depository assets such as stocks, bonds, commingled units, cash, and exchange-traded derivatives
- Other duties of J.P. Morgan include accounting services, corporate and class action processing, transition support, foreign tax reclaims, and records retention
- Non-depository asset duties are limited to accounting services and processing of income/proceeds for assets such as private equity partnerships, real estate, and non-exchange traded derivatives
- Annual approximate fees paid for custodial services: 2008-\$710k, 2007-\$487k, 2006-\$1,157k, 2005-\$1,727k, 2004-\$1,678k
- J.P. Morgan 2008 Custodial Review - Satisfactory





2008 Investment Asset Services	Custodian/ Sub-Custodian	Master Record Keeper
	J.P. Morgan	BNY Mellon
Safekeep Financial Assets and Cash	✓	
Transaction/Settlement Processing	✓	
Financial Asset/Transaction Accounting	✓	✓
Asset Reconciliation	✓	✓
Detailed Income and Position Reports	✓	✓
Corporate Actions	✓	
Class Actions	✓	
Tax Reclamation	✓	
Income Repatriation	✓	
Record Retention	✓	✓



Monthly Investment Asset Reconciliation Timeline

J.P. Morgan
Sub-Custodian

BNY Mellon
Master Record Keeper

JPM will provide a notification to the OIM, that a holdings file and portfolio synopsis are available on-line for review and response via JPM Manager Reconciliation and Accounting Rules Web Access.

OIMs submit their portfolio valuation and complete the portfolio synopsis.

JPM researches discrepancies and price challenges

JPM will notify BWC of OIM failure to submit proper data or variance outside specified tolerance. BWC-FR instructs JPM Institutional Accounting whether to finalize accounting or continue efforts to resolve discrepancies

EOM
1
2
B
u
s
3
i
n
4
e
s
s
5
D
a
y
6
s
7

Mellon provides OIM preliminary traded monthly info by 8am via online delivery product

OIM positively affirms completed trade reconciliation back to Mellon in a.m.

Mellon reviews and enhances OIM reconciliation with summary data and provides to BWC Financial Reporting



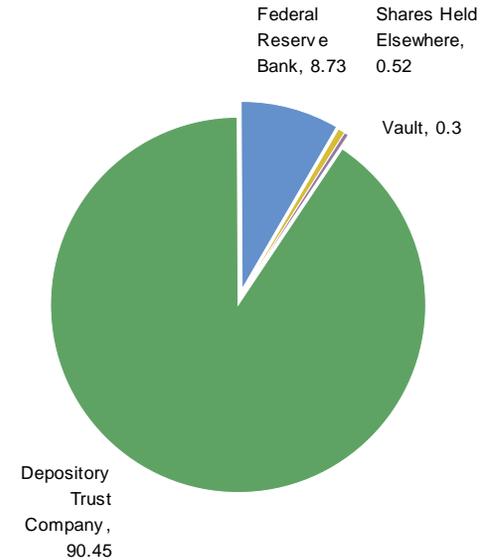
Custodian Safekeeping BWC Holdings As of June 2008

Summary of Holdings – June 2008

US Holdings	
Location	# of Holdings
Depository Trust Company	3,657
Federal Reserve Bank	353
Shares Held Elsewhere	21
Vault	12
TOTAL	4,043

Non-US Holdings	
Region	# of Holdings
Africa	0
Americas	0
Asia & Australia	0
Euroclear	1
Europe	0
TOTAL	1

US Holdings by Location





BWC Trade Volume May – October 2008

US Trade Instruction

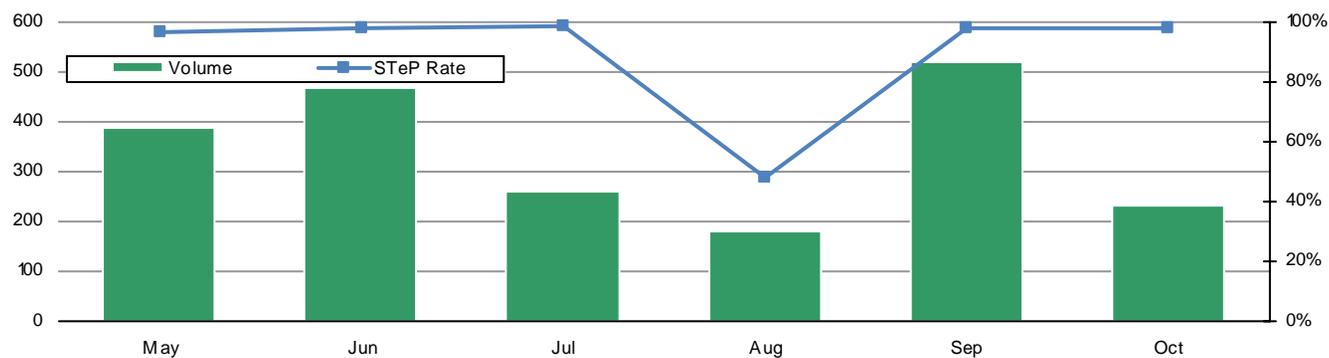
Trade Volume by Month

Month	May	June	July	August	September	October	Total	%
Purchases	260	212	187	70	257	90	1,076	62.81%
Sales	129	257	75	111	265	144	981	47.68%
TOTAL	389	469	262	181	522	234	2,057	

Trade Volume by Asset Type

Asset Type	May	June	July	August	September	October	Total	%
Equity	75	306	127	26	410	183	1,127	64.78%
Fixed Income	314	163	135	155	112	51	930	46.21%
TOTAL	389	469	262	181	522	234	2,057	

US Trade Instruction





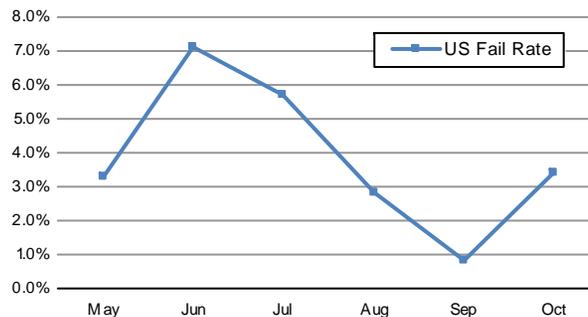
BWC Trade Settlement May – October 2008

US Trade Settlement

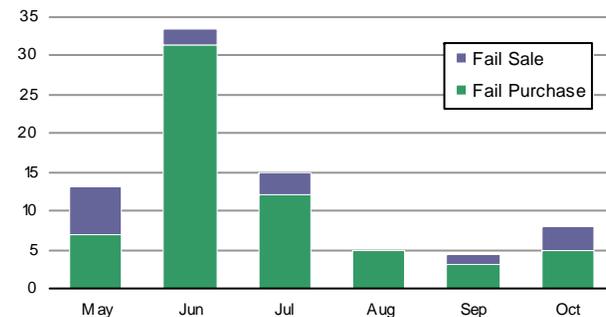
Month	May	June	July	August	September	October	Total
Purchases	260	212	187	70	257	90	1,076
Purchase Falls	2.69%	14.62%	6.42%	7.14%	1.17%	5.56%	5.86%
Sales	129	257	75	111	265	144	961
Sale Falls	4.55%	0.78%	4.00%	0.00%	0.35%	2.08%	1.53%
Total	389	469	262	181	522	234	2,057
Total Falls	3.34%	7.04%	5.73%	2.76%	0.77%	3.42%	3.79%

US Trade Settlement

Fail Rate by Month



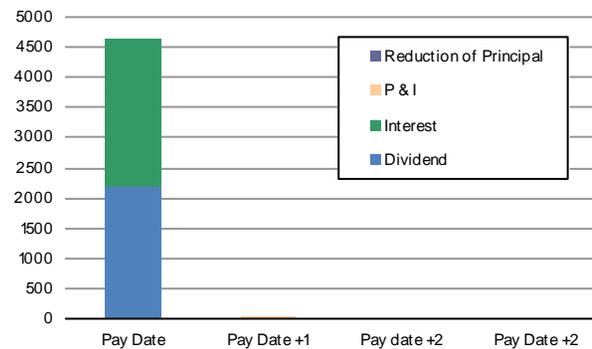
Fail by Trade Type





BWC Income Report May – October 2008

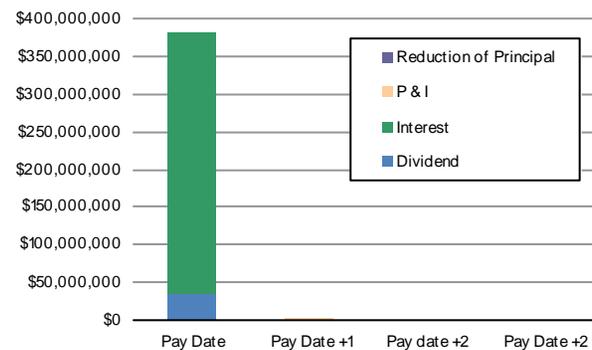
US Volume of Income Receipts



	Pay Date	Pay Date +1	Pay date +2	Pay date +2	% > PD+2
Dividend	2,193	3	7	0	0.00%
Interest	2,431	10	4	0	0.00%
P & I	16	7	2	5	16.67%
Reduction of Principal	6	0	0	2	25.00%
Grand Total	4,646	20	13	7	

- 4686 income payments were made this period
- 4646 income payments were made this period, and paid on pay date – this represents 99.15%

US Value of Income Receipts



	Pay Date	Pay Date +1	Pay date +2	Pay date +2	% > PD+2
Dividend	\$34,851,244.39	\$17,659.00	\$210,067.38	\$0.00	0.00%
Interest	\$345,819,793.76	\$668,071.61	\$305,625.00	\$0.00	0.00%
P & I	\$1,266,260.43	\$731,786.39	\$152,925.72	\$274,494.57	98.68%
Reduction of Principal	\$3,530.00	\$0.00	\$0.00	\$3,667.29	1.32%
Grand Total	\$381,940,828.58	\$1,417,617.00	\$668,618.10	\$278,161.86	

- Total of \$384,305,125.54 paid for this period.
- \$381,940,828.58 was paid on pay date, representing 99.38%

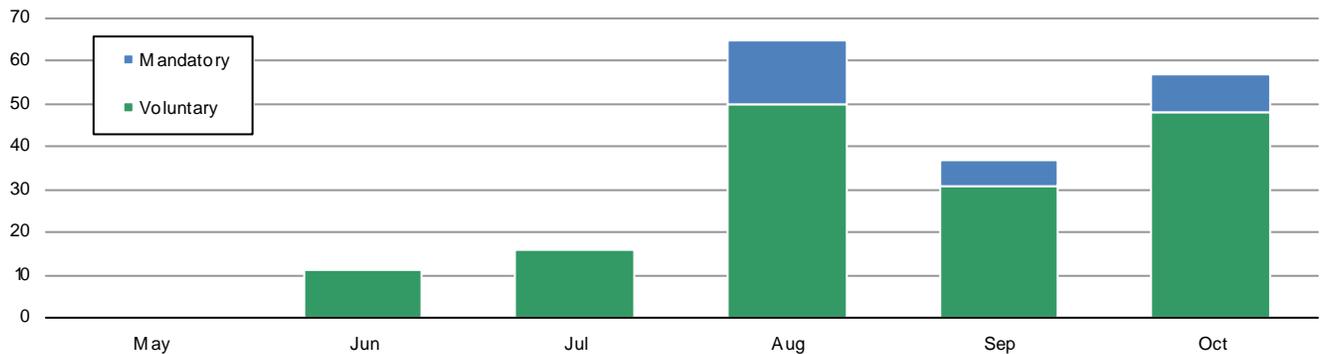


BWC Corporate Actions May – October 2008

US Corporate Actions - Summary

Action Type	May	June	July	August	September	October
Voluntary	0	11	16	50	31	48
Voluntary %	0.00%	100.00%	100.00%	76.92%	83.78%	84.21%
Mandatory	0	0	0	15	6	9
Mandatory %	0.00%	0.00%	0.00%	23.08%	16.22%	15.79%
Total Actions by Account	0	11	16	65	37	57

US Corporate Actions



INVESTMENT DIVISION

TO: Marsha Ryan, Administrator
BWC Investment Committee
BWC Board of Directors

FROM: Bruce Dunn, CFA, Chief Investment Officer

DATE: December 12, 2008

SUBJECT: CIO Report November, 2008

Fiscal Year 2009 Goals

The Investment Division has five major goals for the new fiscal year 2009. These goals and brief comments on action plans for each goal follows:

1. Provide support and execute new BWC Investment Policy resulting from Asset-Liability study
2. Achieve full staffing of BWC Investment Division with continued training of developing staff
3. Continued establishment and execution of investment controls and compliance procedures
4. Complete implementation and utilization of resources provided by new investment accounting and performance system
5. Sell remaining miscellaneous investment assets

Strategic Goal One – PORTFOLIO TRANSITION

BWC investment consultant Mercer will be formulating an asset-liability study and related investment strategy recommendations to be presented to the BWC Investment Committee. The BWC Investment Division will provide whatever support is needed by Mercer in terms of background and information necessary for Mercer to complete its asset-liability study of the Bureau and its investment strategy recommendations. Once a new investment strategy is approved by the BWC Investment Committee and Board of Directors, the Investment Division will assist Mercer and the Investment Committee in developing a new or revised Investment Policy Statement reflecting the newly approved investment strategy.

The Investment Division in consultation with Mercer will employ a thorough and complete RFP process for each new outside investment manager search required to execute the new investment strategy. Given the assumption that multiple RFP processes will be necessary to execute the new investment strategy, a prioritization of the timing of RFP issuances will occur with the approval of the Investment Committee. Each RFP process is expected to result in investment manager recommendations to be presented for approval by the respective RFP evaluation committee to the Investment Committee and Board of Directors.

After each new investment manager for each identified investment asset class mandate is selected and approved, the Investment Division will coordinate the transfer of appropriate invested assets from the legacy investment manager to the new investment manager. It is expected that the Bureau will engage with its approved transition managers for the execution of each of its asset manager transfer strategies. The Investment Division will oversee the timing and execution of each targeted transition with the goal of achieving such asset transition with efficiency and at a low economic cost.

Strategic Goal Two – INVESTMENT STAFF

The Investment Division began fiscal year 2009 commencing July 1, 2008 with a staff of ten individuals consisting of the CIO, Director of Investments, Investment Administration Manager, one Senior Investment Manager, one Investment Manager, three Assistant Investment Managers and two administrative assistants. The one current remaining vacancy within the Investment Division is for a second Senior Investment Manager. Second stage interviews were concluded in October, 2008 for this important position. A finalist candidate was offered the position of Senior Investment Manager and has accepted such offer. The Senior Investment Manager candidate is scheduled to join the Investment Division staff in February 2009, pending the requisite completion of the background check which is progressing.

There will be a proper emphasis on the training of staff investment professionals to become more effective managers. Continuous investment education and an appropriate emphasis on CFA (Chartered Financial Analyst) related programs and study will be encouraged and supported. The number of investment professionals on staff who have achieved the CFA accreditation now totals six and will total seven with the addition of the chosen second Senior Investment Manager in January, 2009. The cross-training of many duties assigned to respective staff members will occur to broaden skill sets and ensure necessary backup support. Each investment professional on staff is expected to serve the needs of the Bureau and its customers with the highest of integrity, ethics and competence.

Strategic Goal Three – INTERNAL INVESTMENT PROCEDURES

The Investment Division will continue to establish and improve upon internal investment procedures and controls. All such procedures will be written and mapped through the use of the Webmethods schematic process. The BWC Internal Audit Division will be engaged as appropriate in guiding and assisting the Investment Division in the creation and refinement of such internal control procedures.

The Investment Division has focused on the management oversight of the passive style investment managers, performance reporting and other investment activities to support the BWC Investment Policy. Internal procedures will be developed for the monitoring of active style investment managers in advance of the anticipated selection and engagement of such managers as an outcome of any new investment strategy approved. Among new policies and procedures being addressed are brokerage activity, proxy actions, corporate actions, legal class actions and asset allocation rebalancing.

Strategic Goal Four – INVESTMENT ACCOUNTING SYSTEM RESOURCES UTILIZATION

A new investment accounting and reporting system offered by BNY Mellon was selected by the Bureau in 2007 via the RFP process. The Investment Division is focusing on the goal of utilizing this improved investment accounting system for the daily monitoring of investment managers in satisfaction of compliance with the BWC Investment Policy. The investment staff is now either learned or is well into the process of learning how to utilize many of the compliance and performance measurement tools and resources offered by this accounting system through both formal training sessions and self education. The BWC Internal Audit Division validated in October, 2008 that the compliance measurement tools of this investment accounting system have been implemented and are being utilized by the Investment Division.

Strategic Goal Five – MISCELLANEOUS INVESTMENT ASSET SALES

It is a strategy and goal of the Investment Division to sell or liquidate during fiscal year 2009 the remaining miscellaneous investment assets of value owned by the Bureau. Miscellaneous assets are defined to include private equity, coins, stock distributions received from formerly owned private equity partnerships, and illiquid securities inherited and retained from previously terminated outside investment managers. The aggregate carrying value of these miscellaneous assets targeted for disposal was approximately \$9.0 million on November 30, 2008.

At the end of fiscal year 2008 ending June 30, 2008, a total of 66 private equity partnerships had been sold by BWC since June, 2007 for total proceeds received of \$399.0 million. All such proceeds received from private equity sales were reinvested in the passive indexed Large Cap S&P 500 Equity portfolio currently managed by Northern Trust. The last remaining private equity fund investment targeted for sale was sold in October, 2008 for proceeds of \$0.9 million. There currently remains one private equity partnership that is being liquidated via portfolio asset sales and resulting cash distributions during fiscal year 2009. A significant cash distribution of \$1.02 million was in fact received in September, 2008 from this fund being liquidated, reducing its carrying value to \$0.2 million. A final summary report of the private equity sale process and results was presented at the Investment Committee meeting on November 20, 2008.

A substantial distribution of cash totaling approximately \$12.1 million was received by the Bureau in July, 2008 from the coin fund liquidation firm contracted by the State of Ohio to oversee the liquidation of remaining coin fund related assets associated with Tom Noe. As a result of this significant coin fund distribution, the Bureau has now received a total of approximately \$53.5 million, net of coin-related expenses paid directly by the Bureau. All remaining unencumbered coin and collectible assets not reserved for litigation claims have now been liquidated with the recent completion of several small auctions and a direct sale transaction with a dealer. There are believed to be sufficient funds retained in a capital coin fund bank account, managed by the coin fund liquidation firm to pay future projected professional fees and litigation settlements.

Compliance and Portfolio Rebalancing

There was one U.S. equity holding owned in each of the separate account passive indexed portfolios managed to the S&P 500 benchmark index that was out of compliance with the current Investment Policy Statement (IPS) guidelines. Northern Trust serves as the passive investment index manager for each of the State Insurance Fund (SIF), Disabled Workers' Relief Fund (DWRP) and Coal Workers' Pneumoconiosis Fund (CWRP).

One of the diversification rules for U.S. equity assets per Section IV.C.iii of the IPS states that no single holding shall account for more than 5% of each Fund's total U.S. equity portfolio at market. During the month of November 2008, there was one holding in the S&P 500 index, Exxon Mobil Corp., which began to exceed 5% of the total S&P 500 index at market. The percentage ownership of Exxon Mobil common stock at market value reflected as of 11/30/08 for each of the three S&P 500 indexed funds managed by Northern Trust was 5.31% for both SIF (\$109.2 million) and CWRP (\$1.7 million) and 5.33% (\$7.6 million) for DWRP. Exxon Mobil had a market value that represented 3.96% and 4.54% of the total S&P 500 index market value as of 9/30/08 and 10/31/08, respectively.

Given the mandate that Northern Trust is expected to manage the BWC passive indexed portfolios very closely to the S&P 500 benchmark, it is being recommended by the BWC Chief Investment Officer and suggested by BWC investment consultant Mercer that Section IV.C.iii of the IPS pertaining to individual holding limits for U.S. equity portfolios not be applicable for passively managed index equity portfolios of the Bureau. A memorandum from Mercer dated December 7, 2008 provides the specific amendment to the language of Section IV.C.iii of the IPS. Such memorandum and a related memorandum of recommendation dated December 8, 2008 from the BWC Chief Investment Officer will be presented for consideration at the Investment Committee meeting on December 17, 2008.

The asset allocation class market values of both equities and fixed income for each of the State Insurance Fund, Disabled Workers' Relief Fund and Coal Workers' Pneumoconiosis Fund were outside of their stated target ranges of the BWC Investment Policy at the end of November, 2008. Proposed changes in the language of the Portfolio Rebalancing section of the IPS are being presented by Mercer for Investment Committee and Board consideration and approval at the December, 2008 meetings. Included in such proposed changes is clarification as to the timing of conducting portfolio rebalancing actions when asset classes are outside of their stated asset allocation target ranges.

The total equity class market value asset allocation target range for each of SIF, DWRP and CWRP is 17-23% of total invested assets. The total fixed income market value asset allocation target range for these

three funds is 76-82% of total invested assets. The unaudited equity class market value asset allocations on November 30, 2008 were 14.2% for SIF, 13.8% for DWRF and 14.7% for CWRF. Each of these equity allocations were below the minimum 17.0% market value allocation. The Bureau's equity portfolios in the aggregate returned an estimated negative 22.7% in value over October and November, 2008 as compared to a flat 0.0% for aggregate fixed income assets over the same two-month period. As a result of this wide variance in performance between these two major asset classes for each fund, each of the unaudited fixed income allocations were above the maximum 82.0% market value allocation for fixed income for SIF (83.7%), DWRF (85.4%) and CWRF (83.6%) at the end of November, 2008.

Investment Manager Cash Redemptions

The Investment Division and Fiscal and Planning Division developed a specific internal cash management strategy and redemption plan last month for the purpose of assuring that sufficient cash balances would be available through January 2009. The period of December and most of January is historically a cyclical period of significantly declining cash balances for the State Insurance Fund whereby operating expenses significantly exceed premium revenue. Such trend typically reverses itself by the end of January and into February of each year as premium collections accelerate. In recent years, redemptions averaging around \$150 million were required in December from one or more outside investment managers of SIF in order to have sufficient cash balances available to fund all obligations through January.

Given the stressful state of the U.S. financial markets since September 2008 until recently and the consequent reduced liquidity of non-government bonds, a portfolio cash redemption strategy was formulated to address the remainder of 2008 that precludes the need to have outside managers sell securities, likely at net losses. This strategy involves redeeming cash interest payments for the remainder of 2008 received from bonds owned in the two Long Duration Fixed Income (LDFI) portfolios managed by State Street and Barclays. All cash interest payments received on bonds owned by BWC are normally reinvested in additional bonds by all outside fixed income managers of the Bureau. As a result of the initial execution of this portfolio cash redemption strategy, a total of \$90 million in cash was redeemed from the two LDFI portfolios at the end of November for SIF as well as an additional \$12.5 million also redeemed in November for SIF from the passive equity indexed manager (Northern Trust). The equity portfolio cash redemption was as a result of a specific corporate action involving Anheuser Busch common stock being retired in a corporate buyout acquisition. In addition to these SIF cash redemption activities totalling \$102.5 million, DWRF and CWRF similarly redeemed cash of \$6.5 million and \$1.3 million, respectively, from interest payments received from the LDFI portfolios as well. The State Insurance Fund will similarly redeem at the end of December bond interest income received in December from the LDFI portfolios. This redemption amount is estimated to be between \$30-35 million.

As a result of this cash redemption strategy, the State Insurance Fund will redeem in November and December between \$130-140 million in cash from its outside managers without incurring any realized losses from sales of portfolio securities.

Transition Management Services RFP

BWC currently has optional use contracts outstanding with two transition managers (State Street, Barclays) entered into after such transition managers were recommended and approved in September, 2006 by the former Oversight Commission upon the completion of an RFP search and evaluation process. A third transition manager (Russell) was also recommended and approved at the same time but an optional use contract was never executed by Russell. The two current transition manager optional use contracts with State Street and Barclays expire on October 31, 2009 with up to a six-month extension for any specific asset transition activity occurring at each expiration date.

Because these contract expirations in October, 2009 will likely occur when one or more investment manager RFP blackout periods and/or portfolio transitions may also be occurring, the Investment Division intends to issue an RFP and complete a new search for transition managers in advance of the need for specific identified transition manager services. Transition manager services and requisite trading activities will be coordinated with the implementation of the new BWC asset allocation investment strategy approved by the Board of Directors that emerges from the Mercer asset-liability modelling recommendations. Such transition manager services are expected to be engaged by the Bureau under the supervision of the Investment Division. These transition managers will be charged with effectively executing the sale, purchase and transfer of appropriate invested assets from legacy investment managers to new approved investment managers.

It is anticipated that the new RFP for transition manager services will be issued some time in early 2009. It is the current goal of the Investment Division to present recommended transition managers emerging from the RFP evaluation process for approval by the Investment Committee and Board at either the April or May, 2009 meetings.

12-Month Investment Committee Calendar

Date	December	Notes
12/17/2008	1. Portfolio Rebalancing recommendation, possible vote	
	2. U.S. Equity Portfolio Diversification recommendation, possible vote	
	3. Mercer Asset/Liability Project progress report	
	4. Annual Custodial Review	
Date	January	
1/22/2009	1. Investment Consultant Asset/Liability Report and recommendation, possible vote	
Date	February	
2/19/2009	1. Investment Consultant Asset/Liability Report and recommendation, possible vote if not voted on at 1/22/09 meeting	
	2. Investment Consultant Performance Report 4Q08	
Date	March	
3/19/2009	1. Investment Consultant contract renewal, possible vote	
Date	April	
4/29/2009		
Date	May	
5/28/2009	1. Investment Consultant Performance Report 1Q09	
Date	June	
6/18/2009		
Date	July	
7/30/2009	1. BWC Investment Division Goals FY2010	

12-Month Investment Committee Calendar

Date	August	Notes
8/27/2009	1. Investment Consultant Performance Report 2Q09	
Date	September	
9/24/2009		
Date	October	
10/29/2009		
Date	November	
11/19/2009	1. Investment Consultant Performance Report 3Q09	
		12/18/2008 1:17:58 PM

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

The Ohio Bureau of Workers' Compensation



Statement of Investment Policy and Guidelines

Adopted by the BWC Board of Directors: November 21, 2008

Amends Adoption of: August 29, 2008

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

Table of Contents

<u>General Policy</u>	<u>Page</u>
I Investment Objectives.....	3
II Background.....	3
III Roles and Responsibilities.....	4
IV Investment Policy Guidelines.....	8
V Performance Objectives.....	15
VI Communications.....	16
VII Target Asset Mixes and Ranges.....	17
A. State Insurance Fund (SIF)	
B. Coal Workers' Pneumoconiosis Fund (CWPF)	
C. Marine Industry Fund (MIF)	
D. Disabled Workers' Relief Fund (DWRF)	
E. Public Work-Relief Employees' Fund (PWRF)	
F. Self Insured Employers Guarantee Fund (SIEGF)	
VIII Review Procedures.....	23
IX Fair Consideration / Public Interest Policy.....	23

The Ohio Bureau of Workers' Compensation Statement of Investment Policy and Guidelines

I. INVESTMENT OBJECTIVES

The primary investment objective is to manage the reserve to preserve the ability of Funds to pay all disability benefits and expense obligations when due. Meeting this objective necessitates prudent risk-taking with the Funds' investments. An additional objective is to earn sufficient returns to grow the surplus over time and to keep premium payments as reasonable and predictable as possible for the benefit of the injured workers and employers of Ohio.

II. BACKGROUND

A. Purpose

This document establishes the investment policy (the "Investment Policy") for the Ohio Bureau of Workers' Compensation ("OBWC") State Insurance Fund and Ancillary Funds ("the Funds"). The Workers' Compensation Board of Directors ("Board") adopts this policy in order to assist the Administrator, the Chief Financial Officer, the Chief Investment Officer and the OBWC staff in meeting investment objectives and monitoring the performance of the investment of the surplus and reserves of the Funds as required by Ohio Revised Code Section 4121.12(F).

The Board is required to establish objectives, policies, and criteria for the administration of the investment program that include asset allocation targets and ranges, risk factors, asset class benchmarks, time horizons, total return objectives, and performance evaluation guidelines, and monitor the administrator's progress in implementing the objectives, policies, and criteria on a quarterly basis. (O.R.C. 4121.12(F))

B. Fiduciary Standard

Under Ohio Revised Code Section (O.R.C.) 4123.44, the voting members of the Board, the Administrator of OBWC, and the Chief Investment Officer of the OBWC are trustees of the state insurance fund and fiduciaries of the Funds, which are held for the benefit of the injured workers and employers of Ohio.

All fiduciaries shall discharge their duties with respect to the Funds with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims, and by diversifying the investments of the assets of the funds so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so. (O.R.C. 4123.44)

All investment activities undertaken by, or on behalf of, the OBWC, including any investment activities performed by outside Investment Managers and General Partners, will strictly adhere to the terms of this Investment Policy, the restrictions of the O.R.C. 4123.44 and any other applicable statutory or administrative rules. A copy of the O.R.C. 4123.44, as amended, is attached to this Investment Policy and all aspects of this Investment Policy shall be construed and interpreted in a manner consistent with O.R.C. 4123.44.

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

III. ROLES AND RESPONSIBILITIES

A. Board Responsibilities

The Board is the primary body charged with overseeing investment activities relating to the Funds. Its oversight functions include the duties specified below:

- i. Approve the strategic asset allocation and investment policy for the Funds and periodically review such policy in light of any changes in actuarial variables, market conditions, or other evolving facts or situations relevant to the appropriate character of that policy.
- ii. Permit the Administrator to invest in an investment class only after the Board, by majority vote, opens the class in question.
- iii. Close any class of investments when it deems prudent.
- iv. Monitor and review the investment performance of the Funds on a quarterly (February, May, August and November) basis to determine achievement of goals and compliance with this Investment Policy.
- v. Advise and consent to the Administrator's hiring of the CIO.
- vi. Advise and consent to the OBWC's employment of an internal auditor, who shall report directly to the Board on investment matters.
- vii. Approve the selection and termination of all Investment Consultants.
- viii. Approve the criteria and procedures for the selection of the Investment Managers and General Partners.
- ix. Approve the final selection and funding and termination of all Investment Managers and General Partners.
- x. Approve the asset class to be managed, investment style, scope of investment activities and maximum percent of the Fund that may be allocated to each Investment Manager and General Partner.
- xi. Prohibit on a prospective basis any specific investment that the Board finds to be contrary to the Investment Objectives of the Funds. In the event that the Board determines that any activity undertaken or proposed to be undertaken pursuant to this Investment Policy is contrary to the Investment Objectives, the Board shall direct the Administrator to take the appropriate corrective action.
- xii. Submit a report annually on the performance and the value of each investment class to the governor, the president and minority leader of the senate, and the speaker and the minority leader of the house of representatives.
- xiii. Advise the Administrator of the Board's criteria for approving proposed dividends submitted to it pursuant to R.C. 4123.32 and Ohio Admin. Code 4123-17-10.

The Board may appoint members to an Investment Committee for the express purpose of assisting the Board to carry out any of the responsibilities enumerated here.

The Ohio Bureau of Workers' Compensation Statement of Investment Policy and Guidelines

B. OBWC Staff Responsibilities

The Chief Investment Officer shall be employed by the Administrator, with the advice and consent of the Board, and shall be a senior member of the OBWC staff with the primary responsibility for implementing the Investment Policy. Subject to the supervision and control of the Administrator, the Chief Investment Officer shall:

- i. Consult with and receive approval from the Board regarding the appropriate strategic asset allocation and investment policy for the Funds and periodically review such policy in light of any changes in actuarial variables, market conditions, or other evolving relevant facts or situations.
- ii. Recommend permissible asset classes for investment to the Board.
- iii. Monitor and review the investment performance of the Funds on a monthly basis to determine achievement of goals and compliance with Investment Policy. Provide a report of monthly market value changes by investment asset class.
- iv. Consult with and receive approval from the Board on the selection and termination of all Investment Consultants.
- v. Consult with and receive approval from the Board on the selection and termination of all Investment Managers and General Partners.
- vi. Consult with and receive approval from the Board on the asset class to be managed, investment style, scope of investment activities and maximum percent of the Fund that may be allocated to each Investment Manager and General Partner.
- vii. Implement the directives of the Board.
- viii. Supervise the management of each Fund's assets in accordance with this Investment Policy and the objectives and guidelines set forth herein.
- ix. Consult with and receive approval from the Board regarding criteria and procedures to be utilized to select Investment Managers and General Partners.
- x. Monitor all managed assets to insure compliance with the guidelines set forth in this Investment Policy and report same to the Board on a monthly basis.
- xi. Inform and receive approval by the Board of any significant change in investment strategy of approved Investment Managers and General Partners.
- xii. Monitor manager trade execution.
- xiii. Promptly vote all proxies and related actions in a manner consistent with the long-term interests and objectives of the Funds set forth herein. The CIO may retain a third party proxy voting service or direct investment managers to vote the proxies related to securities held in their respective portfolios.
- xiv. Maintain detailed records of said voting of proxies and related actions and comply with all regulatory obligations related thereto.
- xv. Report to the Board on at least an annual basis summary trade activity by brokerage firm and communicate any unusual trading activity to the Board in a timely manner, including any discussions with Investment Managers regarding such trading activity.

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

- xvi. Consult with the Funds' Investment Managers on at least a quarterly basis to discuss account performance and other material information.
- xvii. Collect and review the current Form ADV of each Investment Manager and Investment Consultant on an annual basis and provide a summary report to the Board.

C. Investments Managers' Responsibilities

Each Investment Manager shall:

- i. Be a bank, insurance company, investment management company, or investment advisor as defined by the Investment Advisors Act of 1940.
- ii. Manage the plan assets under its care, custody and/or control in accordance with the Investment Policy set forth herein and in compliance with applicable Ohio statutory requirements.
- iii. Exercise full investment discretion over the assets in their care within the guidelines set forth herein, their Investment Management Agreement and the specific portfolio guidelines contained therein.
- iv. Subject to any exceptions expressly set forth herein, Investment Managers shall be directly responsible for executing trades related to the portfolios they manage for the Funds. Investment Managers shall be responsible for seeking the best execution of trades. Any Broker used by any Investment Manager must be properly licensed.
- v. Provide monthly performance evaluation reports that comply with the Global Performance Presentation Standards (GPPS) issued by the CFA Institute.
- vi. Provide the CIO with firm's Brokerage, Soft Dollar and Trade Execution Policy on an annual basis.
- vii. Provide the CIO with a report on at least monthly basis on the trading activities of the Funds, including, but not limited to, the volume of trades and related commissions executed by each Broker.
- viii. Provide the CIO with the firm's Ethics Policy and quarterly confirmation of its compliance with said policy.
- ix. Provide the CIO with the firm's most recent Form ADV on an annual basis.
- x. Comply with the Campaign Contribution Policy as set forth in the Ohio Revised Code (O.R.C.) Section 3517 and provide written evidence of such compliance on a quarterly basis.
- xi. Promptly inform the CIO in writing of all changes of a material nature pertaining to the firm's organization and professional staff.
- xii. If directed by the Administrator and/or the Chief Investment Officer, shall promptly vote all proxies and related actions in a manner consistent with the long-term interests and objectives of the Funds. Each manager designated to vote shall provide OBWC with firm's proxy voting policy on an annual basis, keep detailed records of said voting of proxies and related action and comply with all regulatory obligations related thereto.
- xiii. Report to the CIO on at least a quarterly basis on the status of the portfolio and its performance for various time periods and meet with the staff at least semi-annually to report on the economic outlook and compliance with goals and objectives.

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

- xiv. Acknowledge and agree in writing to their fiduciary responsibility to fully comply with the entire Investment Policy.

D. General Partners' Responsibilities

Each General Partner shall:

- i. Manage the plan assets under its care, custody and/or control in accordance with the Investment Policy set forth herein and in compliance with applicable Ohio statutory requirements.
- ii. Exercise full investment discretion over the assets in their care within the guidelines set forth herein, their Partnership and/or Subscription Agreement and the specific portfolio guidelines contained therein.
- iii. Provide the CIO with quarterly financial statements and an audited annual financial statement for each partnership or fund to which the Ohio BWC has made a commitment.
- iv. Provide the CIO with an annual Valuation Certification attesting to the value of the Ohio BWC holdings in each partnership or fund.
- v. Provide the CIO with the firm's Ethics Policy and annual confirmation of its compliance with said policy (for agreements entered into after January 1, 2006 only).
- vi. Promptly provide the CIO with a detailed report of all capital calls and/or distributions for each partnership or fund.
- vii. Comply with the Campaign Contribution Policy as set forth in the Ohio Revised Code (O.R.C.) Section 3517 and provide written evidence of such compliance on an annual basis (for agreements entered into after January 1, 2006 only).
- viii. Promptly inform the CIO in writing of all changes of a material nature pertaining to the firm's organization and professional staff.

E. Investment Consultants' Responsibilities

The Investment Consultant shall:

- i. Provide independent and unbiased information to the Board, the Administrator and the CIO.
- ii. Assist in the development and amendment of this Investment Policy.
- iii. Assist in the establishment of strategic asset allocation targets.
- iv. Assist in the development of performance measurement standards.
- v. Report the quarterly investment performance results and quarterly risk characteristics of the Funds to the Board.
- vi. Monitor and evaluate Investment Manager performance on an ongoing basis.
- vii. Conduct due diligence on the Funds' current and prospective Investment Managers.

The Ohio Bureau of Workers' Compensation Statement of Investment Policy and Guidelines

- viii. Establish a procedural due diligence search process.
- ix. Assist in the development of criteria and procedures to be utilized for the selection of all Investment Managers.
- x. Provide the CIO with the firm's most recent Form ADV on an annual basis.
- xi. Provide any other advice or services that the Board or the Administrator and Chief Investment Officer determine from time to time is necessary, useful or appropriate to fulfill the objectives of this Investment Policy in accordance with the Investment Consulting Agreement.

IV. INVESTMENT POLICY GUIDELINES

A. Asset Allocation Guidelines

The Funds are part of the Ohio Workers' Compensation System, an exclusive state insurance fund system that is held for the sole benefit of the injured workers and employers of Ohio.

Asset allocation refers to the strategic deployment of assets among the major classes of investments such as fixed income, U.S. equity, non-U.S. equity, alternative investments and cash equivalents. The asset allocation decision reflects the Funds' return requirements as well as the Funds' tolerance for return variability (risk) within the context of the expected liabilities of the Funds. The liability considerations shall include, but not be limited to, current and expected future values of the benefits, premiums and total assets. These factors are important for identifying the investment horizon of the Funds and their cash flow requirements. A formal asset/liability analysis for each Fund will be conducted annually, or more frequently if conditions warrant.

The Board has adopted a long-term asset allocation policy for each Fund that identifies the strategic target weights to each of the major asset classes. These policies are detailed in Section VII.

B. Rebalancing Policy

The asset allocation targets represent a long-term strategy. Short-term market activity will cause the asset mix to drift from the specific allocation targets. A **Rebalancing Policy** is designed to provide a disciplined approach to control the risk exposure of each Fund to the investment categories that have deviated from the established target policy weights. The Board has adopted a policy of range rebalancing. Under range rebalancing, asset rebalancing will be triggered only when actual weightings fall outside of the ranges specified above. The Board expects range rebalancing to produce a superior return/risk tradeoff as compared to time rebalancing because turnover occurs only when necessary.

The Funds' asset allocations are to be monitored quarterly, or more frequently if market conditions warrant. Should the actual asset allocations for a particular class of investments deviate from the indicated range for a particular asset class, the Administrator and Chief Investment Officer will make the necessary adjustments to satisfy the asset allocation guidelines established by this Investment Policy. In order to minimize turnover, Fund cash flows, such as premiums received or benefits paid, will be used to the fullest extent to achieve rebalancing objectives.

The Ohio Bureau of Workers' Compensation Statement of Investment Policy and Guidelines

During periods of extreme market conditions whereby the ability to execute identified Fund asset rebalancing adjustments is made difficult and costly in the judgment of the Administrator and Chief Investment Officer due to a major national or global crisis and consequent illiquid markets, such rebalancing actions may be suspended. The suspension of such rebalancing actions and the reason for such decision will be reported promptly to the Board by the Administrator and Chief Investment Officer. Any required rebalancing action for a Fund will be implemented when the impacted financial markets become sufficiently liquid so as to execute such rebalancing action with reasonable cost in the judgment of the Administrator and Chief Investment Officer.

C. General Guidelines

The following represent the general guidelines that will apply to the management of Fund assets. In addition, each Investment Manager will have specific guidelines that are part of their Investment Management Agreement that will document the Funds' performance expectations and the Investment Manager's role in the overall portfolio. The Funds use these guidelines to establish, guide and control the strategy for each Investment Manager.

- i. The following guidelines serve to diversify the organizational risk of Investment Management firms or General Partners providing services to the Funds and to minimize the dependence by the Funds on any one investment firm. The diversification guidelines are as follows:
 - No one investment organization or General Partner, utilizing active investment strategies, should manage more than 15% of the Funds' assets at the time it is hired.
 - An investment organization, utilizing passive investment strategies, may manage up to 100% of the Funds' assets at the time it is hired. This guideline has been established to allow the BWC to take full advantage of the benefits of low fees resulting from the economies of scale that exist with passive management. The Board, Staff and the Consultant will closely monitor this organizational risk to ensure the security of Fund assets. The maximum allocation under this guideline will only be utilized in circumstances where the fee benefit is believed to outweigh the organizational risk to the Funds.
 - The Funds' assets managed by any one firm, utilizing either active or passive investment strategies, or General Partner should not exceed 5% of the total assets managed by the firm or General Partner for all clients in that asset class at the time it is hired. For purposes of this constraint, "asset class" shall be broadly defined to include all styles, sub-sectors, or specialty portfolios managed by a firm within a particular asset class.
- ii. **Fixed Income Investments**

The investment goal of the fixed income investments is to protect the Funds against adverse changes in the value of the Funds' assets relative to their liabilities. The Board has adopted a policy to invest each Fund's fixed income portfolio in a manner that will approximate the duration and yield curve characteristics of its liabilities in order to preserve the reserve, provide for stable premiums and grow the surplus.

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

Average Weighted Credit Quality

The minimum average weighted quality of the total fixed income portfolio shall be A, as measured by the lower of the Moody's or Standard & Poor's (S&P) rating.

Duration

The duration of the fixed income portfolio in aggregate shall be maintained within a range of +/- 5% of each Fund's fixed income benchmark.

Diversification

The fixed income portfolio in the aggregate shall be diversified as specified below¹ to minimize the risk of losses:

By Sector:

<u>Sector Allocation</u>	<u>Max. % of Fixed Income</u>
U.S. Governments:	100%
Treasuries	100%
Agencies	100%
Mortgages	40%
Agencies	40%
Non-Agency	10%
Collateralized Mortgage Obligations (CMOs) (must be rated AA or better)	10%
Commercial Mortgage Backed Securities (CMBS) and Project Loans	10%
Floating Rate Mortgages	10%
Investment Grade Credit	70%
Finance	35%
Industrial	35%
Transportation	35%
Utilities	35%
Yankees	15%
Asset Backed Securities (ABS) (must be rated AA or better)	10%
Foreign Governments	5%
Below Investment Grade Credit	7.5%

¹ Percentages represent a maximum allocation and will not sum to 100%

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

By Credit Quality:

<u>Credit Quality</u>	<u>Max. % of Fixed Income</u>	<u>Credit Name Max %</u>
Governments/Agencies	100%	N.A.
Aaa/AAA or below	80%	1.00% (AAA only)
Aa/AA or below	65%	1.00% (AA only)
A/A or below	40%	0.75% (A only)
Baa/BBB or below	25%	0.50% (BBB only)
Ba/BB or below	7.5%	0.25% (BB only)
B/B or below	*	0.10% (B only)
CCC	**	0.05% (CCC only)
Below CCC	0%	0.00%

***Maximum of 70% of "Ba/BB or below" securities owned**

****Maximum of 20% of "Ba/BB or below" securities owned**

Individual credit name limits are applicable for actively managed fixed income mandates, and are not applicable for passively managed (index) fixed income mandates. Credit name is defined as unique ticker symbol, such that each distinct credit name has a different ticker symbol as represented on Bloomberg or other such informational source used by the sponsor of the fixed income benchmark index approved.

Maximum percentages refer to market value of each security or credit name owned for the Funds' Fixed Income portfolio in its aggregate. Credit ratings recognized are Moody's, Standard & Poor's and Fitch. Credit rating applicable is the lower of the two ratings if such security is rated by only two of the three rating agencies. Credit rating applicable is the middle rating if such security is rated by all three rating agencies, as consistent with the rules used by the sponsor of the fixed income benchmark index approved. The Chief Investment Officer will report to the Board the details of any guideline violation at the next scheduled Board meeting, or sooner if warranted in the judgment of the Chief Investment Officer. Each Investment Manager will be required to adhere to this Investment Policy in general and will be provided with specific investment security guidelines by the Chief Investment Officer consistent with these Credit Quality and Sector Allocation guidelines in the aggregate.

In the event that downgraded securities result in a violation of these constraints, the Board shall grant an exemption that would allow the Investment Manager to continue to hold the downgraded security or securities, at their discretion, for a period of up to three months. An Investment Manager shall immediately report any guideline violation resulting from a downgraded security in their portfolio to the Chief Investment Officer. The Investment Manager shall also provide an action plan to bring the portfolio back in compliance with the applicable guidelines to the Chief Investment Officer. Such action plan will be reflected in the compliance report of the Chief Investment Officer to be presented at the next scheduled Board meeting.

The Funds may invest in Rule 144A and private placement securities subject to the sector and credit constraints specified above.

The Ohio Bureau of Workers' Compensation Statement of Investment Policy and Guidelines

iii. U.S. Equity

The investment goal of the domestic equity investments is to offer the Funds a broad exposure to the return opportunities and investment characteristics associated with the U.S. domestic equity market.

Diversification

The U.S. Equity portfolio shall be diversified as specified below to minimize the risk of losses:

- Investments will be diversified by capitalization size and by style (growth and value) to approximate the overall market as measured by each Fund's U.S. Equity benchmark.
- No single holding shall account for more than 5% of each Fund's total U.S. equity portfolio at market.
- No single holding shall account for more than 5% of the outstanding equity securities of any one corporation

Non-U.S. Equity

The investment goal of the non-U.S. equity investments is to offer the Funds a broad exposure to the return opportunities, diversification effects and investment characteristics associated with the non-U.S. equity market.

Diversification

The Non-U.S. Equity portfolio shall be diversified as specified below to minimize the risk of losses:

- Investments will be diversified by capitalization size and by style (growth and value) to approximate the overall market as measured by each Fund's Non-U.S. Equity benchmark.
- Investments will be diversified by geographic region and sector, so as to optimize the relationship of expected return to expected risk after taking into consideration the asset allocation of each Fund.
- No single holding shall account for more than 5% of each Fund's total Non-U.S. equity portfolio at market.
- No single holding shall account for more than 5% of the outstanding equity securities of any one corporation

iv. Alternative Investments

The State Insurance Fund has allocated a portion of its investment portfolio to private equity securities, limited partnerships and funds of funds subject to all applicable legal requirements and limits set forth in this Investment Policy. The purpose of investing in private equity securities, partnerships or funds is to enhance the overall investment returns of the Funds.

Future investments in Alternative Investments are not presently anticipated.

The Ohio Bureau of Workers' Compensation Statement of Investment Policy and Guidelines

v. Cash Equivalents

Cash equivalents may be held to meet each Fund's short term cash flow needs.

vi. Securities Lending

Securities lending shall be engaged by the Funds or their Investment Managers as determined and approved by the Board.

vii. Derivatives

A derivative is broadly defined as a contract whose value is based on the performance of an underlying financial asset, index or other investment. The most common forms of derivatives are futures, options, swaps and forwards.

The use of derivatives by the Funds or their Investment Managers is prohibited unless specifically approved by the Board. Specific approvals include:

1. Permission is granted to passive indexed investment managers to use futures on financial contracts in the management of commingled investment funds. The Board anticipates that this use of financial futures may be initiated by investment managers for specific risk-control purposes such as the facilitation of the investment of a large inflow of new money into the commingled fund.

The Board also recognizes that the language of the policies of some commingled funds permits other financial derivatives such as options and swaps. The Board has a very low tolerance for the use of other financial derivatives in commingled funds. On the infrequent occasions when financial derivatives such as options and swaps are used in commingled funds, the Board will carefully evaluate whether remaining invested in that commingled fund is appropriate.

2. Permission is granted to investment managers to use futures on financial contracts in the management of portfolio transitions. This use of financial futures will be reported to the Board in advance and will typically begin and end in short periods of time.

In every case where financial derivatives are used, the Board requires the investment staff of the BWC to report the use of the derivatives to the Board at the next scheduled meeting after the derivatives position has been initiated so that the Board may judge the appropriateness of the risks of the derivatives position.

3. Other derivatives that are generally approved for use include: collateralized mortgage obligations (CMOs), asset backed securities (ABS), and TBA mortgaged-backed securities in accordance with the restrictions outlined below and in Section IV.C.ii above. Other broad classes of derivatives may be added in the future as deemed necessary and desirable by the Board.

CMOs are mortgage-backed bonds that separate mortgage pools into different maturity classes. Issued by the Federal Home Loan Mortgage Corporation (Freddie Mac) and private issuers, CMOs are usually backed by government-guaranteed or other top-grade mortgages. To qualify for investment by the Funds, CMOs must be rated AA or better and not be levered. Interest-only (IOs) and principal-only (POs) instruments are prohibited.

The Ohio Bureau of Workers' Compensation Statement of Investment Policy and Guidelines

ABS are bonds or notes backed by loan paper on accounts receivable originated by banks, credit card companies or other providers of credit and often “enhanced” by a bank letter of credit or by insurance coverage provided by an institution other than the issuer. To qualify for investment by the Funds, ABS must be rated AA or better.

TBA (“to be announced”) pools are mortgage-backed securities in which the specific underlying mortgage pools are not identified at the time of commitment to purchase, but which share defined characteristics such as coupon and term to stated maturity. TBA pools are sometimes either sold before settlement or extended in settlement from original settlement date to a future settlement date that is typically in the next month. To qualify for investment by the Funds, TBA pools must be issued by Freddie Mac, Federal National Mortgage Association (Fannie Mae), or Government National Mortgage Association (Ginnie Mae).

viii. **Commission Recapture / Directed Brokerage**

The Funds shall not engage in commission recapture or directed brokerage programs.

ix. **General Prohibitions**

The following activities or investments are expressly prohibited within the Funds:

- a. Short selling in any form.
- b. The use of all forms of leverage or the purchase of securities with borrowed money is prohibited, except that the Board recognizes that financial futures are generally purchased on margin and this is permitted.
- c. Coins, artwork, horses, jewelry, gems, stamps, antiques, artifacts, collectibles, and memorabilia.
- d. Direct or indirect investments in vehicles that target specified assets, which includes unregulated investments that are not commonly part of an institutional portfolio, that lack liquidity and that lack readily determinable valuation.

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

V. PERFORMANCE OBJECTIVES

A. Total Fund

The primary performance objective for each Fund is to achieve an aggregate rate of return that exceeds the return of each Fund's Performance Benchmark on a consistent basis. The Benchmark combines designated market and/or custom indexes for asset classes, weighted by asset-allocation targets. Currently, the indexes are:

<u>Asset Class</u>	<u>Benchmark</u>
<i>Total Fixed Income:</i>	<i>N/A</i>
Intermediate Duration	Lehman Intermediate U.S. Government/Credit Index
Long Duration	Lehman Long U.S. Government/Credit Index
High Yield	Merrill Lynch High Yield Master II
Inflation-Protected Securities	Lehman U.S. TIPS
<i>U.S. Equity</i>	<i>Wilshire 5000</i>
Large Cap	S&P 500
Small/Mid Cap	Wilshire 4500 / Russell 2500
Alternative Investments	Wilshire 5000 + 5%
<i>Non-U.S. Equity</i>	<i>MSCI EAFE</i>
<i>Cash Equivalents</i>	<i>90-Day T-Bill</i>

B. Asset Class Composites

Each asset class shall be measured relative to its designated market and/or custom index. It is expected that any active management of individual asset classes will provide an investment return in excess of the index, net of expenses, on a consistent basis.

The Ohio Bureau of Workers' Compensation

Statement of Investment Policy and Guidelines

C. Investment Managers

On a timely basis, but not less than four times a year, the Chief Investment Officer will meet with the Investment Consultants to:

- Evaluate the performance of each Investment Manager.
- Review each Investment Manager's adherence to this Investment Policy.
- Analyze any material changes in the Investment Manager's organization, investment strategies or personnel.
- Review each Investment Manager's performance relative to appropriate indices and peer groups.

Each Investment Manager's performance shall be evaluated relative to an appropriate benchmark index and a relative peer group of managers as indicated below. They are expected to (1) rank above median versus their respective peer groups and (2) earn investment returns, net of expenses, that equal or exceed their respective benchmark index.

The performance of each Investment Manager will be monitored on an ongoing basis and the Administrator and the Chief Investment Office shall take any appropriate corrective action, including, subject to approval by the Board, the termination and replacement of an Investment Manager. Factors that may lead to terminating a manager relationship include:

- Performance below median (50th percentile) of their peer group.
- Realization of investment returns, net of expenses, that lag their respective benchmark index.
- Failure to adhere to this Policy or the portfolio's Investment Guidelines.
- Failure to comply with the Ethics Policy of the firm or the Board.
- Violation of any law.
- Style drift.
- Organizational changes including:
 - Change in professional staff
 - Significant loss of clients
 - Significant growth of new business
 - Change in ownership

VI. COMMUNICATIONS

- Each Investment Manager will provide written reports at least monthly, including asset inventories, market commentary or anything else deemed significant at the time of reporting.
- Each Private Equity General Partner will provide written reports at least quarterly, including asset inventories, market commentary or anything else deemed significant at the time of reporting.
- Each Investment Manager will provide all reporting required under Section III. C. of this Policy.
- Each Investment Manager is expected to meet with the Administrator and/or the Chief Investment Officer at least annually at OBWC offices.
- Frequent and regular communication with the OBWC by all Investment Managers is encouraged.

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

VII. TARGET ASSET MIXES AND RANGES

A. State Insurance Fund (SIF)

The State Insurance Fund liabilities consist of the following primary components:

- Indemnity cost: the compensation paid to injured workers for lost wages
- Medical cost: the cost of providing medical coverage to injured workers

These liabilities are long-term in nature, with an approximate duration of 10 years. Premiums are set each year at a level that is expected to cover the cost of future claims. Future claims are estimated based on actuarial methods that measure the expected indemnity and medical costs. These costs are discounted at a rate that is consistent with the guidelines as established by the Government Accounting Standards Board (GASB).

The actual liabilities of the Fund may vary from the expectations at the time premiums are set due to future changes in the discount rate, unanticipated medical inflation, and/or actual claim experience that differs from actuarial expectations. In order to protect the Fund against adverse changes in the Fund's assets relative to its liabilities, the Board has adopted a policy to invest the reserves primarily in a fixed income portfolio that will approximate the duration and yield curve characteristics of the liabilities as measured by the Fund's actuary and Consultant on an annual basis, or more frequently if conditions warrant. A portion of the reserve and surplus may also be invested in equity, inflation-protected, or other securities in order to protect the reserve against unexpected medical inflation and adverse claims experience and/or for the purpose of growing the surplus.

The Board has adopted a long-term asset allocation policy that identifies the strategic target weights to each of the major asset classes.

The table below highlights the general asset classes approved for investment and the strategic target weights. The allowable range for all target weights is reflected in the following table.

<u>Asset Class</u>	<u>Policy Target¹</u>	<u>Policy Range</u>	<u>Management Style</u>	
			<u>Passive</u>	<u>Active</u>
<u>Total Fixed Income:</u>	<u>79%</u>	<u>76-82%</u>	<u>47%</u>	<u>32%</u>
Long Duration	54%	51-57%	27%	27%
High Yield	5%	4-6%	0%	5%
Inflation-Protected Securities	20%	17-23%	20%	0%
<u>Cash Equivalents</u>	<u>1%</u>	<u>0-6%</u>	<u>NA</u>	<u>NA</u>
<u>Total Equity</u>	<u>20%</u>	<u>17-23%</u>	<u>12%</u>	<u>8%</u>
U.S. Equity				
Large Cap	12%	9-15%	12%	0%
Small/Mid Cap	3%	2-4%	0%	3%
Alternative Investments	0%	NA	NA	NA
Non-U.S. Equity	5%	4-6%	0%	5%

¹ Alternative Investments includes private equity and the coin fund. This asset class targets will be combined with that of Small/Mid Cap U.S. Equity until a final determination has been made regarding the potential liquidation of these assets

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

B. Coal Workers' Pneumoconiosis Fund (CWPF)

The Coal Workers' Pneumoconiosis Fund ("CWPF") provides benefits for injured workers under the Federal Coal Mine Health and Safety Act of 1969. The CWPF provides voluntary coverage to employers who have employees who are exposed to coal dust, as required by federal law.

These liabilities are long-term in nature, with an approximate duration of 11 years. Premiums are set each year at a level that is expected to cover the cost of future claims. These costs are discounted at a rate that is consistent with the guidelines as established by the GASB.

The actual liabilities of the Fund may vary from the expectations at the time premiums are set due to future changes in the discount rate, unanticipated medical inflation, and/or actual claim experience that differs from actuarial expectations. In order to protect the Fund against adverse changes in the Fund's assets relative to its liabilities, the Board has adopted a policy to invest the reserves primarily in a fixed income portfolio that will approximate the duration and yield curve characteristics of the liabilities as measured by the Fund's actuary and Consultant on an annual basis, or more frequently if conditions warrant. A portion of the reserve and surplus may also be invested in equity, inflation-protected, or other securities in order to protect the reserve against unexpected medical inflation and adverse claims experience and/or for the purpose of growing the surplus.

The Board has adopted a long-term asset allocation policy that identifies the strategic target weights to each of the major asset classes.

The table below highlights the general asset classes approved for investment and the strategic target weights. The allowable range for all target weights is reflected in the following table

<u>Asset Class</u>	<u>Policy Target</u>	<u>Policy Range</u>	<u>Management Style</u>	
			<u>Passive</u>	<u>Active</u>
<u>Total Fixed Income:</u>	<u>79%</u>	<u>76-82%</u>	<u>74%</u>	<u>5%</u>
Long Duration	54%	51-57%	54%	0%
High Yield	5%	4-6%	0%	5%
Inflation-Protected Securities	20%	17-23%	20%	0%
<u>Cash Equivalents</u>	<u>1%</u>	<u>0-6%</u>	<u>NA</u>	<u>NA</u>
<u>Total Equity</u>	<u>20%</u>	<u>17-23%</u>	<u>20%</u>	<u>0%</u>
U.S. Equity	20%			
Large Cap	17%	9-15%	17%	0%
Small/Mid Cap	3%	2-4%	3%	0%
Alternative Investments	0%	NA	NA	NA
Non-U.S. Equity	0%	NA	NA	NA

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

C. Marine Industry Fund (MIF)

The Marine Industry Fund ("MIF") provides voluntary coverage to employers who have employees who work on or about navigable waters as required by the Federal Longshoremen and Harbor Workers' Act.

These liabilities are intermediate-term in nature, with an approximate duration of 3-4 years. Premiums are set each year at a level that is expected to cover the cost of future claims. These costs are discounted at a rate that is consistent with the guidelines as established by the GASB.

The actual liabilities of the Fund may vary from the expectations at the time premiums are set due to future changes in the discount rate, unanticipated medical inflation, and/or actual claim experience that differs from actuarial expectations. In order to protect the Fund against adverse changes in the Fund's assets relative to its liabilities, the Board has adopted a policy to invest the reserves primarily in a fixed income portfolio that will approximate the duration and yield curve characteristics of the liabilities² as measured by the Fund's actuary and Consultant on an annual basis, or more frequently if conditions warrant. A portion of the reserve and surplus may also be invested in equity, inflation-protected, or other securities in order to protect the reserve against unexpected medical inflation and adverse claims experience and/or for the purpose of growing the surplus.

The Board has adopted a long-term asset allocation policy that identifies the strategic target weights to each of the major asset classes.

The table below highlights the general asset classes approved for investment and the strategic target weights. The allowable range for all target weights is +/- 10% of the policy target weight.

<u>Asset Class</u>	<u>Policy Target</u>
<u>Total Fixed Income:</u> Intermediate Duration	<u>99%</u> 99% ³
<u>Cash Equivalents</u>	<u>1%</u>
<u>Total Equity</u>	<u>0%</u>

² Expected to be implemented by December 31, 2006

³ Approval to invest the assets of the MIF on an interim basis in the institutional money market fund that is currently utilized for BWC's cash balance assets was passed in the April 26, 2007 Workers' Compensation Oversight Commission meeting.

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

D. Disabled Workers' Relief Fund (DWRF)

The Disabled Workers' Relief Fund ("DWRF") provides supplementary payments to workers whose combined Permanent and Total Disabled plus Social Security disability benefits are lower than the DWRF entitlement amount.

These liabilities are long-term in nature, with an approximate duration of 10 years. Premiums are set each year at a level that is expected to cover the cost of future claims. These costs are discounted at a rate that is consistent with the guidelines as established by the GASB.

The actual liabilities of the Fund may vary from the expectations at the time premiums are set due to future changes in the discount rate, unanticipated medical inflation, and/or actual claim experience that differs from actuarial expectations. In order to protect the Fund against adverse changes in the Fund's assets relative to its liabilities, the Board has adopted a policy to invest the reserves primarily in a fixed income portfolio that will approximate the duration and yield curve characteristics of the liabilities as measured by the Fund's actuary and Consultant on an annual basis, or more frequently if conditions warrant. A portion of the reserve and surplus may also be invested in equity, inflation-protected, or other securities in order to protect the reserve against unexpected medical inflation and adverse claims experience and/or for the purpose of growing the surplus.

The Board has adopted a long-term asset allocation policy that identifies the strategic target weights to each of the major asset classes.

The table below highlights the general asset classes approved for investment and the strategic target weights. The allowable range for all target weights is reflected in the following table

<u>Asset Class</u>	<u>Policy Target</u>	<u>Policy Range</u>	<u>Management Style</u>	
			<u>Passive</u>	<u>Active</u>
<u>Total Fixed Income:</u>	<u>79%</u>	<u>76-82%</u>	<u>47%</u>	<u>32%</u>
Long Duration	54%	51-57%	27%	27%
High Yield	5%	4-6%	0%	5%
Inflation-Protected Securities	20%	17-23%	20%	0%
<u>Cash Equivalents</u>	<u>1%</u>	<u>0-6%</u>	<u>NA</u>	<u>NA</u>
<u>Total Equity</u>	<u>20%</u>	<u>17-23%</u>	<u>12%</u>	<u>8%</u>
U.S. Equity	15%			
Large Cap	12%	9-15%	12%	0%
Small/Mid Cap	3%	2-4%	0%	3%
Alternative Investments	0%	NA	NA	NA
Non-U.S. Equity	5%	4-6%	0%	5%

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

E. Public Work-Relief Employees' Fund (PWRF)

The Public Work-Relief Employees' Fund ("PWRF") provides benefits for "work-relief employees" who are engaged in any public relief employment and receiving "work-relief" in the form of public funds or goods in exchange for any service or labor rendered in connection with any public relief employment.

These liabilities are intermediate-term in nature, with an approximate duration of 3-4 years. Premiums are set each year at a level that is expected to cover the cost of future claims. These costs are discounted at a rate that is consistent with the guidelines as established by the GASB.

The actual liabilities of the Fund may vary from the expectations at the time premiums are set due to future changes in the discount rate, unanticipated medical inflation, and/or actual claim experience that differs from actuarial expectations. In order to protect the Fund against adverse changes in the Fund's assets relative to its liabilities, the Board has adopted a policy to invest the reserves primarily in a fixed income portfolio that will approximate the duration and yield curve characteristics of the liabilities as measured by the Fund's actuary and Consultant on an annual basis, or more frequently if conditions warrant. A portion of the reserve and surplus may also be invested in equity, inflation-protected, or other securities in order to protect the reserve against unexpected medical inflation and adverse claims experience and/or for the purpose of growing the surplus.

The Board has adopted a long-term asset allocation policy that identifies the strategic target weights to each of the major asset classes.

The table below highlights the general asset classes approved for investment and the strategic target weights. The allowable range for all target weights is +/- 10% of the policy target weight.

<u>Asset Class</u>	<u>Policy Target</u>
<u>Total Fixed Income:</u> Intermediate Duration	<u>99%</u> 99% ¹
<u>Cash Equivalents</u>	<u>1%</u>
<u>Total Equity</u>	<u>0%</u>

¹ Approval to invest the assets of the PWRF on an interim basis in the institutional money market fund that is currently utilized for BWC's cash balance assets was passed in the April 26, 2007 Workers' Compensation Oversight Commission meeting.

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

F. Self Insured Employers Guarantee Fund (SIEGF)

The Self Insured Employers Guarantee Fund (“SIEGF”)/Surety Bond Fund (“SBF”) provides for payment of compensation and benefits to injured workers of bankrupt self-insured employers.

The Board has adopted a long-term asset allocation policy that identifies the strategic target weights to each of the major asset classes.

The table below highlights the general asset classes approved for investment and the strategic target weights. The allowable range for all target weights is +/- 10% of the policy target weight.

<u>Asset Class</u>	<u>Policy Target</u>
<u>Total Fixed Income:</u>	<u>0%</u>
<u>Cash Equivalents</u>	<u>100%</u>
<u>Total Equity</u>	<u>0%</u>

**The Ohio Bureau of Workers' Compensation
Statement of Investment Policy and Guidelines**

VIII. REVIEW PROCEDURES

The Board in conjunction with the Administrator, Chief Investment Officer and Investment Consultant will review this policy statement at least once a year, to determine if revisions are warranted and will publish the policy statement and any changes it adopts and make copies available to all interested parties.

It is not expected that this Investment Policy will change frequently; in particular short-term changes in the financial markets should generally not require an adjustment in this Investment Policy.

IX. FAIR CONSIDERATION / PUBLIC INTEREST POLICY

The Board desires that Staff and the Investment Consultant identify, research and evaluate qualified Ohio managers, minority managers and women-owned managers and that Investment Managers give consideration to such managers and brokers in their efforts to fulfill the Funds' investment objectives, but only in compliance with their respective fiduciary duties to the Funds.

Qualified Ohio Managers - Criteria

As used in this Investment Policy, a qualified Ohio-qualified investment manager or broker is one that meets at least one of the following requirements:

- Has its corporate headquarters or principal place of business in Ohio
- Employs at least 500 individuals in Ohio
- Has a principal place of business in Ohio and employs at least 20 residents of the State

Minority Managers – Criteria

As used in this Investment Policy, a minority manager shall be defined as an investment manager or broker that is U.S. domiciled and is majority-owned by one, or any combination, of the following groups: African American, Native American, Hispanic American and Asian American.

Additionally, Investment Managers who are majority-owned by women are included in this Policy

In addition to the requirements above, any qualified Ohio manager, and any minority or women-owned Investment Manager must be a registered investment advisor under the Investment Advisors Act of 1940. Any Broker must be properly licensed.

It is the Board's intention to give such firms consideration in their efforts to fulfill the Funds' investment objective; however, the Board is not obligated to hire any qualified Ohio manager, minority or women-owned firm on behalf of the Funds if such hiring is inconsistent with its fiduciary duty to the Funds and their stakeholders.