BWC Board of Directors

Investment Committee Agenda

William Green Building
Wednesday, December 15, 2010
Level 2, Room 3
10:30 a.m. – 12:30 p.m.

Call to Order
Bob Smith, Committee Chair

Roll Call
Mike Sourek, Scribe

Approve Minutes of the November 18, 2010 Meeting
Bob Smith, Committee Chair

Review and Approve Agenda*
Bob Smith, Committee Chair

Discussion Items

1. Monthly and Fiscal Year to date Portfolio Value Comparisons
   - November 2010/October 2010
   - November 2010/June 2010

   Bruce Dunn, Chief Investment Officer
2. Month-End Portfolio Asset Allocation Values
   - November 2010/October 2010

   Lee Damsel, Director of Investments
3. CIO Report – November 2010
   Bruce Dunn, Chief Investment Officer
4. BWC Investment Policy Statement
   Revisions Summary Report – Fiscal Year 2009 To Date
   Bruce Dunn, Chief Investment Officer
5. Mercer Portfolio Sensitivity Analysis Presentation
   State Insurance Fund
   Bob Smith, Committee Chair
   Mercer Team
6. Mercer Presentation on Long Credit Active vs. Passive Management, second discussion
   Bob Smith, Committee Chair
   Mercer Team
7. Committee Calendar
   Bob Smith, Committee Chair
   Bruce Dunn, Chief Investment Officer

Adjourn

Bob Smith, Committee Chair

<u>Next Meeting: Thursday, January 20, 2011</u>

* Not all agenda items may have materials

** Agenda subject to change

BWC Board of Directors

INVESTMENT COMMITTEE

Thursday, November 18, 2010 9:30 a.m.
William Green Building
30 West Spring Street, 2nd Floor (Mezzanine)
Columbus, Ohio 43215

Members Present:	Robert Smith, Chair Alison Falls, Vice Chair David Caldwell Kenneth Haffey Larry Price William Lhota, ex officio
Other Members Present:	Charles Bryan, Jim Harris, James Hummel, Jim Matesich, Thomas Pitts
Members Absent:	None
Counsel Present:	John Williams, Assistant Attorney General James Barnes, Bureau Chief Legal Officer
Staff Present:	Marsha Ryan, Administrator Bruce Dunn, Chief Investment Officer Lee Damsel, Director of Investments
Consultants Present:	Guy Cooper, Partner, Mercer Consulting Jordan Nault, Principal, Mercer Consulting Kweku Obed, Senior Associate, Mercer Consulting
Scribe:	Linda Byron, Staff Attorney, Legal Division, BWC

CALL TO ORDER
Mr. Smith called the meeting to order at 9:17 a.m.

ROLL CALL
Roll call was taken. All members were present.

APPROVE MINUTES OF THE OCTOBER 21, 2010 MEETING
Mr. Smith asked that page eight of the October 21, 2010 minutes be amended to state " Mr. Pitts mentioned that the discussion had centered on reallocating money to real estate, but had not specified the source of the money." Upon motion of Ms. Falls, seconded by Mr. Haffey, the minutes of the October 21, 2010 meeting were approved as amended. Roll call was taken and the motion passed 6-0.

AGENDA
Mr. Smith indicated that the agenda should be amended to reflect the Investment Committee Charter Annual Review would follow the presentation on Portfolio Performance by the Mercer Consulting representatives due to timing issues. Upon motion of Ms. Falls, seconded by Mr. Caldwell, the agenda was approved as amended. Roll call was taken and the motion passed 6-0.

DISCUSSION ITEMS:
PORTFOLIO PERFORMANCE
Mr. Kweku Obed, Senior Associate with Mercer Consulting, the Bureau's investment consulting firm, (hereinafter referred to as Mercer or Mercer Consulting) referred the Committee to the Investment Performance Summary Third Quarter 2010 report. The report is incorporated into the minutes by reference and was provided to the Committee in advance of the meeting. Mr. Obed indicated that the managers performed as expected and any differences in the performance as compared to the benchmark were due to pricing differences or transition activity. He indicated that there had been some organizational changes in some of the managing firms, but emphasized that Mercer Consulting did not find any of the changes to be material changes. He added that the changes should not impact the Bureau's investment strategy. Mr. Obed indicated that the Bureau's portfolio performance was a testament to having good solid short term and long term investment strategies. He added that Mr. Dunn, the Bureau's Chief Investment Officer should be commended for supporting an investment strategy that produced strong returns over the past three years.

Mr. Obed noted that the economy is technically in a recovery, but the recovery is slow. To help the economy, the Federal Reserve has instituted a program called QE2 or Quantitative Easing 2. QE2 could result in low yields and high prices for Treasury bonds. The national unemployment rate at the end of September 2010 was 9.6%. Ohio's unemployment rate was higher, at approximately 10.0%. Both unemployment rates had fallen from the previous month. The spread between the ten year nominal U.S. Treasury bond yield and the ten year TIPS rate was 1.78%. The domestic equity returns in the third quarter 2010 and in the year-to-date 2010 were positive. The one year returns on domestic equity were also positive. The year-to-date returns on large cap growth, core and value stocks were essentially the same. The year-to-date returns on mid cap growth, core and value stocks were also similar, but small cap growth outperformed core and value. The three year returns were negative on all large cap, mid cap and small cap domestic stocks. In the third quarter 2010, the MSCI EAFE index gained a positive 16.5% return. This translates to a positive 7.2% return in local currency terms. In the same period, Japan had a positive 5.9% return which represents a 0.0% return in local currency terms. The U.K. posted a positive 19.8% return in the third quarter 2010. This amount represents a positive 13.7% gain in local currency terms. The MSCI ex-U.S. index gained a positive 16.7% in the third quarter 2010. This amount is positive 8.6% in local currency terms. Mr. Obed indicated that the value of the U.S. Dollar has declined in exchange value in the third quarter of 2010 versus important foreign currencies. Mr. Smith emphasized that diversification of assets due to U.S. dollar devaluation has been an important consideration in the portfolio. He added that it will be a critical consideration in the future in order to mitigate the volatility induced by currency. The 2010 third quarter returns of Brazil, China and Russia were mentioned.

Mr. Bryan asked for clarification on Quantitative Easing. He asked if the purpose was to purchase a large number of bonds at a low interest rate. Mr. Cooper, Partner at Mercer Consulting replied that the purpose of Quantitative Easing was to replace bonds with cash in institutions. Mr. Bryan asked why the Federal Reserve had to buy the bonds. Mr. Cooper answered that the Federal Reserve has the ability to infuse large amounts of cash. Mr. Obed added that the Federal Reserve has the resources to be involved in such a large undertaking. Ms. Falls noted that interest rates have been kept at a very low rate so the Fed has had to resort to adding money supply to the economy to maintain an accommodative monetary policy. Mr. Smith indicated that fixed income had posted good positive returns in the third quarter 2010, but the returns had diminished substantially in October 2010. He added that the December 2010 meeting would include a presentation on the BWC bond portfolio and its sensitivity to interest rate changes. He pointed out that it can be challenging to follow a long term investing strategy during difficult economic times.

Mr. Obed pointed out that the Disabled Workers' Relief Fund (DWRF) and the Coal Workers' Pneumoconiosis Fund (BLF) went through multiple transitions during the third quarter 2010. In the third quarter 2010, the entire Bureau portfolio returned a positive 6.6%. The one year return ending September 30, 2010 was a positive 10.7% and its three year return was a positive 5.9%. In the third quarter 2010, the State Insurance Fund (SIF) returned a positive 6.9%, which was 0.2% less than the policy benchmark. Ms. Falls pointed out that the presentation lists the SIF return as positive 6.2% since inception. She asked the date of inception. Mr. Cooper indicated that inception was July 2005.

Mr. Obed pointed out the departures of several executives from some of the firms that manage the Bureau's investments. He reassured the Committee that the departures were not material to the Bureau since the investments are passive. The asset allocations of each of the Bureau's funds were mentioned. It was noted that although some of the allocations were overweight or underweight, all of the allocations were within policy limits. Mr. Smith asked if the positive amounts shown were due to outperformance. Mr. Dunn responded in the affirmative. It was noted that the total fund grew due to positive performance. Mr. Obed noted that the Bureau's portfolio did well in comparison to other agencies. The total portfolio had a positive three month return of 6.6%. The year to date return was a positive 9.5%. The one year return was a positive 10.7%. The three year return was positive 5.9% and the five year return was positive 6.0%. Mr. Obed assured the Committee that pricing differences between the manager and the custodian explained the performance variances. Ms. Falls added that pricing differences can vary widely. She indicated that sometimes the difference was due to the pricing desk and the source of the information. Other times, the differences are due to liquidity issues. Mr. Smith pointed out that the Bureau's total portfolio three year return was a positive 5.9% while the equity market has posted negative 7.0% in the same period. He added that the Committee had been previously questioned about whether their long term conservative investing strategy was advisable, but the positive outcome of portfolio performance reiterated that the right decision had been made at the time. Ms. Falls asked the Mercer representatives to provide their most recent white papers to the Committee for review.

MONTHLY AND FISCAL YEAR TO DATE PORTFOLIO VALUE COMPARISONS

Mr. Dunn referred to the Invested Assets Market Value Comparison-Total Funds chart, dated November 17, 2010. The report is incorporated into the minutes by reference and was provided to the Committee in advance of the meeting. Net investment income in October 2010 was $194 million, representing a monthly total net portfolio return of positive 0.9%. The bond portfolio returned a negative 0.2% and the equity market returned a positive 3.7% in the same period. TIPS were the leader in fixed income performance. The net yield spread between nominal Treasuries and TIPS was currently 2.4%. The long government bond portfolio returned negative 3.1% in the month of October 2010. The long credit portfolio returned negative 1.6% and the U.S. Aggregate fixed income portfolio returned positive 0.4% in October 2010. The equity portfolio returned a positive 3.7% in the same month. Because there was a 1.4% depreciation in the U.S. Dollar versus all foreign currencies in the ACWI ex-US index for October, the non-US equity portfolio of the Bureau returned 3.4% in U.S. dollars and 2.0% in the respective local currencies. In the fiscal year to date through October 2010, net investment income was $1.456 billion. Equities, led by the international portfolio, returned a positive 17.8% and bonds returned positive 4.0% in the same period.

MONTH-END PORTFOLIO ASSET ALLOCATION VALUES

Ms. Lee Damsel, Bureau Director of Investments, referred the Committee to the Investment Asset Allocation- Combining Schedule as of September 30, 2010, dated October 15, 2010 and the Investment Asset Allocation-Combining Schedule as of October 31, 2010, dated November 17, 2010. The reports are incorporated into the minutes by reference and were provided to the Committee in advance of the meeting. She pointed out that as of the end of October 2010 all three major asset classes had a total portfolio allocation near their respective target allocations.

Mr. Dunn referred to the BWC Invested Assets as of November 17, 2010 report, prepared by the Chief Investment Officer. The chart is incorporated into the minutes by reference and was provided to the Investment Committee just prior to the November 18, 2010 Investment Committee meeting in order to reflect the most current portfolio valuations. Mr. Dunn indicated that interest rates have moved up. The 30-year Treasury yield has increased by 0.5% since September 30, 2010. The 10-year Treasury yield went from 2.5% to just less than 3.0% today. Mr. Dunn added that Treasury yields are still lower than in March 2010. During November 2010 to date, the bond portfolio returned negative 2.1%, a decrease of $300 million in market value and equities returned negative 0.3%, a decrease of $20 million. On November 17, 2010, cash balances were $120 million, a decrease from its previous level of $432 million on September 30, 2010. Mr. Dunn indicated that the cash balance decrease had been expected. Mr. Dunn indicated that funds would need to be redeemed from the portfolio prior to calendar year-end for operational purposes. He plans to redeem funds from the asset classes with the highest variance above their allocated targets at the time of the redemption. Mr. Dunn indicated that the long credit portfolio would likely be selected, but the equity portfolio might be reduced as well, based on the market value at the time. Mr. Haffey questioned how this year's cash redemption compared to last year. Mr. Dunn responded that there could be upwards of $200 million redeemed this year while that amount was between $50- $100 million last year.

NEW BUSINESS/ACTION ITEMS

INVESTMENT COMMITTEE CHARTER ANNUAL REVIEW

Mr. Don Berno, Board Liaison for the Bureau and Ms. Ann Shannon, Bureau Legal Counsel referred the Committee to the OBWC Board of Directors Investment Committee Charter, dated November 18, 2010. The charter is incorporated into the minutes by reference and was provided to the Committee at the November 18, 2010 Investment Committee meeting in order to reflect the most current revisions. Mr. Berno noted that changes had been made that reorganized the first paragraph under "Purpose," moved some of the information in the first paragraph to bullet points, revised the verb tenses to make them consistent, clarified the voting role of the Board Chair as an ex-officio member and changed the word "which" on the final page.

At this time, Ms. Falls made a Motion of the Investment Committee to Refer the Investment Committee Charter to the Board of Directors, seconded by Mr. Haffey as follows: I move that the Investment Committee of the Workers' Compensation Board of Directors approve its amended Charter and refer it to the Board of Directors for review and approval. Roll call was taken. The motion passed 6-0.

DISCUSSION ITEMS:

CIO REPORT-OCTOBER 2010

Mr. Dunn referred the Committee to the CIO Report October 2010, dated November 10, 2010. The report is incorporated into the minutes by reference and was provided to the Investment Committee in advance of the meeting. Mr. Dunn pointed out that the report contained a timetable on action items that have been taken. He indicated that the Full Service Investment Consultant RFP had been issued on Tuesday, November 16, 2010 and could be viewed at OhioBWC.com. The RFP is also being advertised in the Pensions & Investments newsletter. Mr. Dunn added that the RFP information has also been sent to some firms who have sent earlier inquiries to the Investment Division.

Ms. Falls advised the Committee she had accompanied Mr. Dunn and Ms. Damsel to in-person meetings with State Street and Northern Trust, two of the firms that manage the Bureau's investments. She complimented Mr. Dunn and Ms. Damsel on their professionalism and their ability to maintain good, strong relationships with the individuals in each firm. Specifically, she pointed out that they were able to ask tough questions while maintaining a good positive working relationship with the individuals in the firm.

BROKERAGE ACTIVITY SUMMARY REPORT-FISCAL YEAR 2010

Ms. Damsel referred the Committee to the BWC Annual Brokerage Activity Summary Report, dated November 18, 2010. The report is incorporated into the minutes by reference and was provided to the Investment Committee in advance of the meeting. Ms. Damsel emphasized that there were transitions of the SIF between July 2009 and May 2010 that affected the Bureau's trading volume. The DWRF and BLF also went through multiple transitions in August 2010 and will be reflected in next fiscal year brokerage fees. The definition of broker/dealer was discussed. Ms. Damsel pointed out that the Bureau paid an average of $0.0079 cents per share as commission on total equity shares traded in the SIF separate account portfolios during fiscal year 2010. That translates to total commissions paid of $2,107,340. The Bureau paid an average of $0.0013 cents per share in its passive indexed separate account SIF equity portfolios, excluding transition management activity, in fiscal year 2010. Mr. Cooper asked for information on the broker named Ridge Clearing. Ms. Damsel indicated that the firm was a clearing brokerage firm used by one of the Bureau transition managers.

Mr. Lhota asked why the commissions had been reduced so significantly from last year. Ms. Damsel replied that the broker did not have to split tickets with the DWRF and BLF portfolios because the DWRF and BLF equity portfolios were in a commingled fund throughout the entire fiscal year. She added that this resulted in greater efficiencies of trading. Mr. Smith pointed out the significant difference in costs if this year's index brokerage rate were applied to last year's volume. Mr. Lhota pointed out that there was a significant difference in the index trading rates and he commended the decisions that were being made. Ms. Damsel continued and stated the average commission was $0.0086 cents per share for equity transitions in fiscal year 2010. Ms. Falls indicated that the Bureau was paying index and transition managers for the best execution. There were no self-directed brokerage commissions. Mr. Dunn added that investment managers have to comply with the Bureau's Investment Policy Statement (IPS) as a fiduciary. Ms. Damsel added that the goal is to try to match the benchmark and keep the tracking error low. She added that brokerage fees remain low because the index managers are motivated. Mr. Harris asked about the spread of commission per share for equity transition managers. Ms. Damsel replied that costs vary by trading network and platform. Ms. Damsel pointed out that the Bureau may pay more trading costs per share in transitions to buy quickly so that large purchases can be made before word gets out to the brokerage community that the purchases are being made. This frequently results in a lower strike price for stocks purchased before the stock can be driven higher. The fixed income brokerage fees were discussed. Ms. Damsel noted that $5.0 billion in bonds were traded last year while that amount increased to $34.0 billion this year. Ms. Falls pointed to the size of the transition, the substantial changes in asset allocation and the significant $34.0 billion amount in market value traded and commended Mr. Dunn and Ms. Damsel for facilitating these significant changes with the help and guidance of Mercer Consulting. Ms. Damsel added that all of this was done without tracking error. Mr. Smith commended the report. Mr. Haffey also complimented the report.

MERCER PRESENTATION ON LONG CREDIT ACTIVE VS. PASSIVE MANAGEMENT

Mr. Smith commented that Mr. Dunn had previously emphasized how important it was to find an active manager who would sell credits that were eroding in value and minimize losses in the current economy. Mr. Smith added that the Bureau is the only investment portfolio that he is involved in where all of the bonds are passively invested. He added that he is uncomfortable with that approach, especially in the current economy. Mr. Dunn added that a good, astute manager who is acting based on solid credit research can look at the relative value of the bonds and adjust the portfolio accordingly. He pointed out that a long credit index manager must buy new issues of slightly more than ten years final maturity and is forced within a couple of months to sell these new issues in order to comply with the benchmark. These transactions result in additional fees and expenses. Mr. Smith added that those same managers are evaluated based on tracking error. Mr. Dunn indicated that Mercer's research had shown that active management of long duration credit bonds had outperformed passive management long term. Mr. Smith noted that Mercer would be presenting a second report on active management of long duration credit bonds at the December 2010 Investment Committee meeting.

Ms. Jordan Nault, Principal of Mercer Consulting referred to the Active vs. Passive Management Long Credit presentation, created by Mercer and dated November

18, 2010. The presentation is incorporated in the minutes by reference and was provided to the Investment Committee in advance of the meeting. Ms. Nault indicated that long duration credit fixed income accounts for 28% or approximately $5.5 billion of the SIF portfolio. The key evaluation metrics in looking at active versus passive management were discussed, as well as the long duration credit basics. Mercer's Fee study shows that the average fee for an actively managed long duration portfolio of $250 million is 22 basis points (bps). The study included the average fees for both long credit and long government active management, but Ms. Nault emphasized that the fee for active management of long credit alone was similar. The pros and cons of active management were reviewed. Mr. Pitts asked about the liquidity of bonds when actively managed. Ms. Nault responded that the manager is not required to replicate a benchmark with active management, so bonds can be liquidated more easily.

The most highly rated active managers use security selection and sector selection to add the most value to long duration credit management. The other sources for adding value include credit/quality weightings, yield curve positioning and duration management. Mr. Smith asked if the Mercer presentation used actual managers from the Mercer database. Ms. Nault answered in the affirmative. Mr. Lhota indicated that by using security selection, the most highly rated managers are picking the bond credits that they have the most faith in. Mr. Dunn added that, traditionally, changing duration does not materially affect performance for long duration bond portfolios. Duration is not a value added alpha generator for long duration bond portfolios. Active managers generally seek to avoid downgrades on portfolio holdings and dispose of declining credit securities. Ms. Falls pointed out that the Barclays Capital Long Credit Index has 1209 issues in the index. She added that a passive manager would purchase approximately 800 issues to replicate the index. An active manager would purchase only approximately 100-200 issues. An active manager can find hidden value in smaller credits that might not exist in larger credits. Additionally, the smaller debt issuers are followed less often by Wall Street and may present opportunities to exploit market inefficiencies. Active managers can add alpha by overweighting or underweighting sectors. It was pointed out that in a sample portfolio; none of the managers were making large duration bets. Mr. Smith added that looking at credit quality is very important. Ms. Falls indicated that Manager C is using the barbell strategy and offsetting with a credit quality of A-. She added that the active managers shown are implementing different strategies such as using the barbell strategy or consistently overweighting BBB rated bonds. Mr. Smith indicated that some limitations can be placed on the managers by placing restrictions in the guidelines. Mr. Cooper noted that some strategies might not be advisable, as the bottom of the BBB rated bonds are almost high yield credits. Ms. Falls noted that the credit rating agencies are usually a lagging indicator of credit. Mr. Smith point out that history has shown that investors cannot always rely upon credit rating agencies.

Reward to risk, standard deviation, tracking error and information ratio were defined. Mr. Smith noted that a low tracking error is expected with passive investing, but a larger tracking error with active management is not necessarily indicative of poor investment management decisions. Ms. Nault indicated that for active management of long duration credit, the average gross excess return is 1.08%. This exceeds the median fee of 0.22%. Mr. Smith pointed out that the information shown covers only a 2 ½ year period, beginning November 2007, when the market disruption began. He indicated that it is difficult to determine if the chart accurately represents the normal average excess return due to market conditions during that time period. Ms. Falls agreed, adding that this was a short time period for review. (Mr. Price left the meeting at approximately 10:35 a.m.) The number of long credit managers exhibiting a higher return and higher reward to risk ratio than the benchmark for the recent one year, three year and five year periods were discussed. Ms. Falls pointed out that by the end of the recent five year period, the information ratio for median managers is 0.2% before fees. Mr. Cooper pointed out that fees are 22 bps. He added that the average excess return beats the fees by more than 80 bps. Ms. Nault indicated that of the 22 strategies in Mercer's long credit universe, five are rated B+ or better. She added that Mercer is confident in managers A, B, C and D's ability to outperform the market. She added that all of the managers in the chart had outperformed the index. Mr. Cooper clarified that this was before fees. Three of the five managers outperformed the index after fees.

Ms. Falls pointed out that when focusing on information ratio and performance, several managers did not have good results. She added that ultimately only 2 of 5 managers had good results in performance and information ratio. Mr. Cooper explained that information ratio is intended to anticipate how a manager will perform, but a manager will not necessarily perform as anticipated. Mr. Obed added that with long duration credit, the objective is the focus. Mr. Cooper indicated that the information ratio will be positive if the manager outperforms the index, but the goal is also to minimize risk. Over time, Ms. Nault indicated that manager A outperformed the benchmark 50% of the time. Ms. Falls added that manager A also underperformed the benchmark 50% of the time. Mr. Cooper responded that even a good manager will be below the benchmark one-half of the time. Mr. Smith added that with active management, there must be an increased tolerance for underperformance on a short term basis. Mr. Pitts pointed out that manager E beat the benchmark 65% of the time and asked why Mercer did not have faith in the future performance of manager E. The Mercer representatives explained that there could have been a change in the management team or the other 35% of underperformance might represent significant underperformance or the amount of risk taken might have been unacceptable. Mr. Cooper added that beating the index is not difficult if a manager understands how to beat the index. He added that past performance does not indicate future performance and the amount of risk tolerance must be determined. Mr. Smith indicated that the goal was to avoid big problems.

Mr. Dunn mentioned that the next step needed to be determined at the December meeting. Mr. Cooper indicated that the Mercer representatives could contact the managers directly to find out the strength of their team and to learn the reasons behind their success. Mr. Smith asked if Mercer could find out specifically what size portfolio was being managed and if the managers could support a mandate of the Bureau's size. Mr. Dunn indicated that this active management issue on long duration credit bonds was too premature for a vote next month. He added that more education was needed and an IPS revision to support active management was required. Mr. Dunn noted that the fees were shown for a $250 million mandate, but that the fees would likely be lower in terms of basis points per market value. Ms. Falls added that before a RFP was issued for the index managers, the tracking error and the benchmark results would need to be discussed. She indicated that the objective for active management and the path for getting to the objective would need to be decided. Mr. Smith responded that the objective might not include a benchmark. Ms. Falls indicated that the volatility would also need to be reviewed. Mr. Smith added that how volatility fit into the portfolio would need to be decided. Mr. Cooper stated that Mercer would draft a straw objective for the December 2010 meeting. Ms. Falls pointed out that it is difficult to get a full picture on active management of long duration credit by reviewing the history of five managers from the Mercer database over a five year period. Mr. Smith replied that the mandate is new. Ms. Falls pointed out that the credit research team at State Street has had a significant amount of portfolio turnover. She added that the current team there is completely different from the team that she followed when she worked with them.

COMMITTEE CALENDAR

Mr. Dunn referred to the 12-month Investment Committee Calendar, dated November 10, 2010 and the attached revised Recommended Phase I & II Strategies-Investment Committee Estimated Timetable: State Insurance Fund chart dated November 18, 2010. The calendar and the timetable are incorporated into the minutes by reference. The calendar was provided to the Committee in advance of the meeting. The revised timetable was provided to the Committee just prior to the November 18, 2010 meeting in order to reflect the most recent revisions. Mr. Dunn noted that the date of RFP issuance approval refers to the date of the RFP approval by the Board. The RFP for certain proposed strategies will be issued one month after Board approval. The timetable shows that two educational sessions in consecutive months will occur for each investment strategy. Two months after the second educational session, the IPS will be revised for that strategy. For real estate, the percentage of investment for the SIF portfolio will need to be determined and the source of the funds will need to be chosen. Mr. Dunn added that although the RFPs will be issued every three months, the entire strategy timetable will take more than two years before completion. He indicated that the strategy could not be completed with the current staff. Additionally, the proper restrictions and controls would need to be in place before implementation. The risk and diversification restrictions would need to be decided upon and added to the IPS. Mr. Smith commented that the chart contained the important elements of the strategies. Mr. Dunn indicated that the Investment Division would be working with Mercer Consulting to review sample RFPs for MWBE (Minority and/or Women Owned Business Enterprises). Additionally, Mr. Dunn and Ms. Damsel were working with Allison Yager, the Global Business and Investment Leader of Mercer's Real Estate Boutique, for real estate investment information. Mr. Dunn indicated that the Investment Division was also reviewing cash overlay.

Ms. Falls pointed out the deliberate pace in the chart and reminded the Committee that a transition of management consultants was imminent. She added that the prior consultant, Wilshire, and the current consultant, Mercer, had different recommendations for moving forward. She added that the information will need to be brought together in a way that makes sense based on the upcoming transition in consultants and a potential process change. Mr. Smith added that Mercer and Wilshire came to different conclusions because they had different personnel. He added that his biggest concern was who would remain on the Bureau's Investment Committee and the Board of Directors. Mr. Matesich added that a new advisor might have a different point of view and he wondered if there would be enough time to consider the ideas of the new group of advisors. Mr. Dunn responded that the new asset/liability study would not take place until 2012. He added that the focus would be on the asset classes which would likely remain the same. He added that Mercer had already provided good education on investing in real estate. He emphasized that the interviews with the prospective new investment consultant would have some focus on the firm's real estate capabilities. He noted that ultimately, the asset proposals from Wilshire and Mercer were very similar. Mr. Matesich pointed out that the second educational presentation on real estate was scheduled after the IPS revision on that asset class. Mr. Dunn replied that he felt that the Committee would have enough education on real estate by March 2011 to revise the IPS accordingly. Additionally, he noted that it would be difficult for a new manager to present an educational session on real estate right after beginning in March 2011. Lastly, he stated that he felt the IPS change on real estate was unlikely to be controversial. Referring to the Investment Committee calendar, Mr. Smith noted that the economist's presentation would occur at the February 2011 Board meeting since the Investment Committee's agenda was full for that date. At the December 2010 Investment Committee meeting, Mr. Dunn indicated that he would present a summary of the IPS changes from the prior eighteen months.

ADJOURN

A motion to adjourn the meeting at 11:13 a.m. was made by Mr. Haffey and seconded by Mr. Caldwell. Roll call was taken and the motion passed 5-0.

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

Asset Sector	Market Value November 30, 2010	% Assets	Market Value October 31, 2010	% Assets	Increase(Decrease) Prior Month-End	% Change	Market Value June 30, 2010	% Assets	Increase(Decrease) Prior Fiscal Year-End	% Change
Bonds	**13,783,058,271**	**68.6%**	**13,986,655,519**	**68.5%**	**(203,597,248)**	**-1.5%**	**13,537,054,766**	**71.2%**	**246,003,505**	**1.8%**
Equity	**6,116,508,689**	**30.4%**	**6,167,924,850**	**30.2%**	**(51,416,161)**	**-0.8%**	**5,154,562,423**	**27.1%**	**961,946,266**	**18.7%**
Net Cash - OIM	**78,855,849**	**0.4%**	**46,625,813**	**0.3%**	**32,230,036**	**69.1%**	**64,622,125**	**0.3%**	**14,233,724**	**22.0%**
Net Cash - Operating	**80,692,510**	**0.4%**	**162,808,239**	**0.8%**	**(82,115,729)**	**-50.4%**	**218,991,596**	**1.2%**	**(138,299,086)**	**-63.2%**
Net Cash - SIEGF	**48,633,706**	**0.2%**	**49,004,067**	**0.2%**	**(370,361)**	**-0.8%**	**47,335,733**	**0.2%**	**1,297,973**	**2.7%**
Total Net Cash	**208,182,065**	**1.0%**	**258,438,119**	**1.3%**	**(50,256,054)**	**-19.4%**	**330,949,454**	**1.7%**	**(122,767,389)**	**-37.1%**
Total Invested Assets	**20,107,749,025**	**100%**	**$20,413,018,488**	**100%**	**($305,269,463)**	**-1.5%**	**$19,022,566,643**	**100%**	**$1,085,182,382**	**5.7%**

OIM: Outside Investment Managers
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 2010/October 2010 Comparisons

- Net investment income in November 2010 was a negative $(220) million representing a monthly net portfolio return of **-1.1%** (unaudited).
- Bond market value decrease of $(203.6) mm comprised of $47.0 mm in interest income, $(214.5) mm in OIM realized/unrealized losses ($15.7 mm net realized gain), $35.1 mm in OIM net bond sales and $1.0 mm in operations redemptions, representing a monthly net return of **-1.2%** (unaudited).
- Equity market value decrease of $(51.4) mm comprised of $8.8 mm of dividend income, $(61.3) mm in net realized/unrealized losses ($0.8 mm net realized gain) and $1.3 mm in operations redemptions, offset by $2.4 mm in OIM net equity purchases, representing a monthly net return of **-0.9%** (unaudited).
- Net cash balances decreased $(50.3) mm in November 2010 largely due to decreased operating cash balances of $(82.1) mm, offset by $32.2 mm in OIM sales. JPMorgan US Govt. money market fund had 30-day average yield of 0.08% for November 2010 (0.11% for Oct10) and 7-day average yield of 0.06% on 11/30/10 (0.10% on 10/31/10).

November 2010/June 2010 FYTD Results

- Net investment income for FYTD2011 was $1,236 million largely comprised of $280 mm of interest/dividend income and $959 mm of net realized/unrealized gains ($183 mm net realized gain), offset by $3 mm in fees, representing a FYTD2011 net portfolio return of **+6.4%** (unaudited).
- Bond market value increase of $246 mm for FYTD2011 comprised of $245 mm in interest income and $146 mm of net realized/unrealized gains ($157 mm net realized gain), offset by $138 mm in OIM/TM net bond sales and by $7 mm in operations redemptions, representing a FYTD2011 net return of **+2.8%** (unaudited).
- Equity market value increase of $962 mm for FYTD2011 comprised of $34 mm in dividend income, $812 mm in net realized/unrealized gains ($26 mm net realized gain) and $123 mm in OIM/TM net equity purchases, offset by $7mm in operations/miscellaneous asset redemptions, representing a FYTD2011 net return of **+16.8%** (unaudited).

Ohio Bureau of Workers' Compensation
Investment Asset Allocation - Combining Schedule

As of November 30, 2010

(in thousands)

	SIF	% Trust	DWRF	% Trust	BLF	% Trust	PWRF	% Trust	MIF	% Trust	SIEGF	% Trust	ACF	% Trust	Totals	% of Total
Bonds	**$ 12,612,347**	**68.5%**	**$ 905,896**	**69.0%**	**$ 220,265**	**79.5%**	**$ 25,499**	**98.5%**	**$ 19,051**	**97.8%**	**$ -**	**0.0%**	**$ -**	**0.0%**	**$ 13,783,058**	**68.6%**
Long Credit	5,497,563	29.8%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	5,497,563	27.3%
Long Government	1,413,294	7.7%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1,413,294	7.0%
Long Gov/Credit	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
TIPS	3,147,909	17.1%	466,003	35.5%	111,007	40.1%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	3,724,919	18.5%
Aggregate	2,553,581	13.9%	439,893	33.5%	109,258	39.4%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	3,102,732	15.6%
Intermediate Gov/Credit	-	0.0%	-	0.0%		0.0%	25,499	98.5%	19,051	97.8%	-	0.0%	-	0.0%	44,550	0.2%
Stocks	**5,652,185**	**30.7%**	**407,774**	**31.0%**	**56,550**	**20.4%**	**-**	**0.0%**	**-**	**0.0%**	**-**	**0.0%**	**-**	**0.0%**	**6,116,509**	**30.4%**
Russell 3000	3,895,584	21.1%	273,711	20.8%	36,252	13.2%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	4,205,547	20.9%
MSCI ACWI ex-U.S.	1,748,101	9.6%	134,063	10.2%	20,298	7.2%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	1,902,462	9.5%
S&P 500	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Dividends Receivable	8,465	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	8,465	0.0%
Miscellaneous	35	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	35	0.0%
Net Cash & Cash Equivalents	**155,125**	**0.8%**	**557**	**0.0%**	**249**	**0.1%**	**382**	**1.5%**	**433**	**2.2%**	**48,634**	**100.0%**	**2,802**	**100.0%**	**208,182**	**1.0%**
Total Cash & Investments	**$ 18,419,657**	**100.0%**	**$ 1,314,227**	**100.0%**	**$ 277,064**	**100.0%**	**$ 25,881**	**100.0%**	**$ 19,484**	**100.0%**	**$ 48,634**	**100.0%**	**$ 2,802**	**100.0%**	**$ 20,107,749**	**100.0%**

Market value of bonds includes accrued investment income.
Net cash and cash equivalents includes the impact of net trade receivables/payables, accrued money market earnings, and accrued investment manager fees.

Policy Fund Asset Allocation	SIF	DWRF	BLF	PWRF	MIF	SIEGF	ACF
Bonds	69%	69%	79%	99%	99%	-	
Stocks	30%	30%	20%	-	-	-	NA
Cash	1%	1%	1%	1%	1%	100%	
Total	100%	100%	100%	100%	100%	100%	

State Insurance Fund (SIF)

The equity index return increased slightly for the Russell 3000 (+0.58%) but was offset by a significantly decreased MSCI ACWI ex-U.S. (-3.86%) index return in the month of November. The net equity allocation actually increased to 30.7 % for the month from 30.5% for the prior month-end as a result of the larger overall decrease in return in the bond indices. All bond indices returns decreased for the U.S. TIPS Index (-1.69%), Barclays Capital Long Credit Index (-1.37%), Barclays Capital Government Long Term Index (-1.31%) as well as for the U.S. Aggregate Bond Index (-0.57%) in November. The SIF overall bond asset allocation remained relatively flat from 68.4% at end of October to 68.5% at end of November.

Cash allocations decreased from 1.1% at end of October to 0.8% at end of November largely due to decreased SIF operating cash of $80.9 million offset by $32.1 million in increased SIF investment manager cash balances.

Disabled Workers' Relief (DWRF) and Coal Workers' Pneumoconiosis Funds (BLF)

The increase in the Russell 3000 (+0.58%) index return offset by a significant decrease in the MSCI ACWI ex U.S.(-3.86%) index return modestly affected the net equity allocations for DWRF and BLF from 30.9% and 20.6% at end of October, to 31.0% and 20.4%, respec by fund at month end November. The negative bond returns for the U.S. TIPS Index (-1.69%) and the U.S. Aggregate Bond Index (-0.57%) affected the bond asset allocations for DWRF and BLF from 69.0% and 79.0% at the end of October to 69.0% and 79.5%, respectively by fund, at month end November.

Public Work-Relief Employees' Fund (PWRF) and Marine Industry Fund (MIF)

The Barclays Capital Government/Credit Intermediate index return decreased -0.67% in the month of November.

SIF: State Insurance Fund

DWRF: Disabled Workers' Relief Fund
BLF: Coal Workers' Pneumoconiosis Fund

PWRF: Public Workers' Relief Fund
MIF: Marine Industry Fund

SIEGF: Self-Insured Employers Guaranty Fund
ACF: Administrative Cost Fund

Ohio Bureau of Workers' Compensation
Investment Asset Allocation - Combining Schedule

As of October 31, 2010

(in thousands)

	SIF	% Trust	DWRF	% Trust	BLF	% Trust	PWRF	% Trust	MIF	% Trust	SIEGF	% Trust	Eliminations	ACF	% Trust	Totals	% of Total
Bonds	**$ 12,801,541**	**68.4%**	**$ 916,430**	**69.0%**	**$ 223,823**	**79.0%**	**$ 25,677**	**98.5%**	**$ 19,184**	**97.9%**	**$ -**	**0.0%**	**$ -**	**$ -**	**0.0%**	**$ 13,986,655**	**68.5%**
Long Credit	5,596,563	29.9%		0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	5,596,563	27.4%
Long Government	1,432,690	7.7%		0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	1,432,690	7.0%
Long Gov/Credit		0.0%		0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	-	0.0%
TIPS	3,204,425	17.1%	474,028	35.7%	113,942	40.2%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	3,792,395	18.6%
Aggregate	2,567,863	13.7%	442,402	33.3%	109,881	38.8%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	3,120,146	15.3%
Intermediate Gov/Credit		0.0%		0.0%		0.0%	25,677	98.5%	19,184	97.9%	-	0.0%		-	0.0%	44,861	0.2%
Stocks	**5,697,834**	**30.5%**	**411,626**	**30.9%**	**58,465**	**20.6%**	**-**	**0.0%**	**-**	**0.0%**	**-**	**0.0%**	**-**	**-**	**0.0%**	**6,167,925**	**30.2%**
Russell 3000	3,875,485	20.7%	272,174	20.4%	37,351	13.2%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	4,185,010	20.5%
MSCI ACWI ex-U.S.	1,818,368	9.8%	139,452	10.5%	21,114	7.4%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	1,978,934	9.7%
S&P 500	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	-	0.0%
Dividends Receivable	3,946	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	3,946	0.0%
Miscellaneous	35	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%		-	0.0%	35	0.0%
		0.0%															
Net Cash & Cash Equivalents	**202,655**	**1.1%**	**1,030**	**0.1%**	**1,017**	**0.4%**	**389**	**1.5%**	**407**	**2.1%**	**49,004**	**100.0%**		**3,936**	**100.0%**	**258,438**	**1.3%**
Total Cash & Investments	**$ 18,702,030**	**100.0%**	**$ 1,329,086**	**99.9%**	**$ 283,305**	**100.0%**	**$ 26,066**	**100.0%**	**$ 19,591**	**100.0%**	**$ 49,004**	**100.0%**	**$ -**	**$ 3,936**	**100.0%**	**$ 20,413,018**	**100.0%**

Market value of bonds includes accrued investment income.
Net cash and cash equivalents includes the impact of net trade receivables/payables, accrued money market earnings, and accrued investment manager fees.

Policy Fund Asset Allocation	SIF	DWRF	BLF	PWRF	MIF	SIEGF	ACF
Bonds	69%	69%	79%	99%	99%	-	
Stocks	30%	30%	20%	-	-	-	NA
Cash	1%	1%	1%	1%	1%	100%	
Total	100%	100%	100%	100%	100%	100%	

State Insurance Fund (SIF)

Equity indices returns increased for the Russell 3000 (+3.91%) as well as for the MSCI ACWI ex-U.S. (+3.41%) in the month of October. As a result the equity allocation increased to 30.5% for the month from 29.4% for the prior month-end. Bond indices returns also increased for U.S. TIPS Index (+2.65%) and the U.S. Aggregate Bond Index (+0.36%) but decreased for the Barclays Capital Government Long Term Index (-3.14%) as well as for the Barclays Capital Long Credit Index (-1.48%) in October. The SIF strong equity performance along with a slightly net negative bond indices resulted in the overall bond asset allocation decreasing from 68.6% at end of September to 68.4% at end of October.

Cash allocations decreased from 2.0% at end of September to 1.1% at end of October largely due to decreased SIF operating cash of $159.7 million as well as $13.7 million in decreased SIF investment manager cash balances.

Disabled Workers' Relief (DWRF) and Coal Workers' Pneumoconiosis Funds (BLF)

DWRF and BLF transitions were completed for the Barclays U.S. Aggregate, U.S. TIPS, Russell 3000 and the MSCI ACWI ex U.S. and final placement of funds to approved target investment managers in September, 2010. These transitions complete the BWC Board of Directors' Investment Committee approved Coal Workers' Pneumoconiosis Fund new asset allocation (approved at the December, 2009 meeting) and the Disabled Workers' Relief Fund new asset allocation (approved at the January, 2010 meeting). The increase in the Russell 3000 (+3.91%) as well as the MSCI ACWI x U.S. (+3.41%) increased the equity allocations for DWRF and BLF from 30.5% and 20.3% at end of September, 2010, to 30.9% and 20.6%, respectively by fund, at month-end October. The strong equity returns overshadowed the increased returns for the U.S. TIPS Index (+2.65%) and the slightly positive U.S. Aggregate Bond Index (+0.36%) returns, decreasing the overall bond asset allocations for DWRF and BLF from 69.3% and 79.3% at end of September, 2010, to 69.0% and 79.0%, respectively by fund, at month-end October.

Public Work-Relief Employees' Fund (PWRF) and Marine Industry Fund (MIF)

The Barclays Capital Government/Credit Intermediate index increased +0.48% in the month of October.

SIF: State Insurance Fund

DWRF: Disabled Workers' Relief Fund
BLF: Coal Workers' Pneumoconiosis Fund

PWRF: Public Workers' Relief Fund
MIF: Marine Industry Fund

SIEGF: Self-Insured Employers Guaranty Fund
ACF: Administrative Cost Fund

INVESTMENT DIVISION

TO:	Marsha Ryan, Administrator BWC Investment Committee BWC Board of Directors
FROM:	Bruce Dunn, CFA, Chief Investment Officer
DATE:	December 13, 2010
SUBJECT:	CIO Report November, 2010

Fiscal Year 2011 Goals

The Investment Division has three major goals for the new fiscal year 2011. These goals and brief comments on action plans for each goal follow:

1. Provide support and execute new BWC Investment Policy resulting from investment consultant Asset-Liability studies and from Board actions impacting/revising the BWC Investment Policy.

2. Explore for investment consideration and subsequently initiate implementation processes pertaining to appropriate identified subject matters.

3. Continued establishment and execution of appropriate internal investment controls and compliance procedures.

Strategic Goal One – PORTFOLIO TRANSITION

The Investment Division executed a comprehensive portfolio transition strategy in multiple stages throughout fiscal year 2010 for the State Insurance Fund that was completed at the end of May, 2010. This completed transition activity evolved from an asset-liability study of BWC investment consultant Mercer in which a new asset allocation strategy was approved by the BWC Investment Committee and Board of Directors at their respective March, 2009 meetings. Such new approved investment strategy target asset allocations for the State Insurance Fund were subsequently reflected in a new Investment Policy Statement approved by the BWC Investment Committee and Board of Directors at their respective April, 2009 meetings.

Mercer also completed and presented for consideration a strategic asset allocation analysis on the Disabled Workers Fund and the Coal Workers Fund at the December, 2009 and January, 2010 Investment Committee meetings. The Investment Committee and Board of Directors approved the new targeted asset allocation recommendations of Mercer and the CIO for each of these specialty funds at these respective meetings. The BWC Investment Policy Statement reflecting the new portfolio asset allocation targets for these two specialty funds were reviewed and revised by the Board of Directors at these respective meetings.

A transition manager was selected by the Investment Division in the fourth quarter of FY2010 to implement and execute the necessary asset class mandate shifts approved by the Board for both of these specialty funds. All necessary legal contracting with both the transition manager and each of the target commingled fund investment managers approved by the Board was completed in July, 2010. The final transition strategy was also approved by the BWC CIO in July, 2010. The transition of these specialty fund assets was then implemented and completed in August, 2010.

The Investment Division is committed to support and implement any revisions to the BWC Investment Policy Statement that may include additional identified asset classes or investment management style changes that are considered under Strategic Goal Two which follows. As always, the CIO will report on Investment Policy compliance to the Investment Committee and Board via this monthly CIO report with any exceptions noted and addressed.

Strategic Goal Two – NEW INVESTMENT CONSIDERATIONS

Over the latter half of fiscal year 2010, the Investment Division began to explore with Mercer the potential employment of active management of each bond and stock asset class targeted as mandates of the State Insurance Fund. Mercer provided two education sessions on active versus passive investment management with the Investment Committee in March and April, 2010. The CIO provided specific recommendations at the May, 2010 Investment Committee meeting regarding current State Insurance Fund fixed income and equity classes to be considered for active management.

The consideration of Minority-or-Women-Owned (MWBE) investment managers to manage a portion of BWC assets has recently been addressed by the Investment Committee. Mercer provided two education sessions on MWBE manager utilization by institutional investors in Investment Committee meetings in June and July, 2010. A proposal for consideration on MWBE asset management next steps for the Bureau was made by Mercer and the CIO at the August, 2010 Investment Committee meeting. A proposed investment policy presented by the CIO and Mercer addressing MWBE investment managers that amends Section VIII of the Investment Policy Statement was approved by the Investment Committee and adopted by the Board at their respective September, 2010 meetings. A Manager-of-Manager (MoM) structure for the selection of MWBE managers was approved by the Board. A RFP process will be initiated for the selection of any MoM firm who will in turn be charged with the selection of specific MWBE firms managing assets in specified approved asset classes with the goal of achieving above benchmark returns. An initial MWBE funding level targeted at 1% of SIF investment assets was approved by the Board. The specific timing for implementation of this MWBE investment manager program will be determined by the Board. Any engagement of asset management of targeted BWC funds by MWBE managers would likely result in active management of such funds.

A first presentation on real estate as an asset class was made by Mercer to the Investment Committee at the August, 2010 meeting. A second presentation on peer investor investments in real estate assets was made by Mercer at the October, 2010 Investment Committee meeting.

Mercer also provided to the Investment Committee at its August, 2010 meeting an updated investment policy decisions chart related to potential investment strategy revisions for consideration by the Investment Committee. Some of these topics are outlined above. At the request of the Chair and Vice Chair of the Investment Committee, the CIO presented his investment strategy recommendations for the State Insurance Fund in a report dated September 14, 2010. These recommendations included seven strategy priorities and estimated implementation timelines to completion, some of which are outlined herein. The CIO recommendations of new investment strategies included active investment management for portions of four SIF asset class mandates (Long Credit fixed income, U.S. Aggregate core fixed income, U.S. equities and Non-U.S. equities) as well as strategies for MWBE asset management, cash management, and real estate investing. The CIO presented at the November, 2010 Investment Committee meeting an estimated timetable for the various necessary steps to be addressed with the Investment Committee for the implementation of each of these seven potential new strategies. These steps include appropriate education, leading to IPS revisions then leading RFP issuance approval in turn leading to RFP finalists recommendations for each recommended new strategy.

For any new investment consideration approved by the Investment Committee and Board in fiscal year 2011, the Investment Division will planfully coordinate and implement all action steps necessary to achieve such objectives. Any new objectives involving the selection of new investment managers will typically require the crafting and issuance of a RFP by the Investment Division working with the assistance of the Legal and Fiscal and Planning Divisions.

The BWC Fiscal and Planning Division currently manages all cash balances of each of these portfolios, including operating cash, with virtually all cash being invested in a single U.S. government money market fund managed by JP Morgan that is utilized as an overnight cash sweep vehicle. The Investment Division is exploring expanding the use of other higher yielding money market funds available as well as direct investments in short-term money market investments (commercial paper, certificates of deposit, repurchase agreements, etc.) in order to improve investment income and returns on its cash investments while maintaining desired liquidity. In addition, the Investment Division is in the early stages of exploring the increasingly common institutional investor practice of utilizing contracted cash management overlay services to more effectively control/reduce cash balances exceeding projected nearer term operational cash needs. This excess cash can instead be directed to existing BWC outside managers to earn projected higher returns and reduce market value variances to portfolio allocation targets. The CIO will provide a report detailing cash management recommendations to the Investment Committee and Board when appropriate after further research.

Strategic Goal Three – INTERNAL INVESTMENT PROCEDURES

The Investment Division will continue to maintain as well as establish and improve internal investment policies and procedures that are written and documented. Among the procedures addressed as well as revised/updated in fiscal year 2010 were policies and procedures regarding the selection of transition managers, as well as revising/updating policies and procedures on investment manager background checks/fingerprinting, asset class rebalancing, RFP/RFQ/RFI processes, vendor invoice payments and passive investment management review.

Among the policies and procedures that will be addressed in fiscal year 2011 will be administrative areas such as Investment Division internal budgeting, travel, electronic storage of investment documents/records and document file retention schedules of RIM documents. Internal processes will also be developed for the monitoring of active style investment managers in advance of the future selection and engagement of any such active managers resulting from any new active management investment strategy approved by the Board. The formulation of proper detailed policies and procedures with regards to potential Investment Division cash management of portfolio assets will also be essential before any such actions occur.

Communication with and support of the BWC Internal Audit Division in reviewing existing/new investment-related policies and procedures and providing suggested improvements is a valuable resource for the Investment Division. The BWC Internal Audit Division will be engaged as appropriate in auditing identified Investment Division internal policies and processes.

Investment Consultant RFP Update

A Request for Proposals (RFP) for a Full Service Investment Consultant was issued by BWC as scheduled on November 16, 2010. The BWC Board of Directors provided BWC staff the approval to issue this important RFP at its October 22, 2010 meeting.

This RFP is accessible from the Ohio Department of Administrative Services procurement website and a link to this website is available from the BWC website ohiobwc.com. This RFP has also been advertised in both the November 15 and November 29 dated publications of Pensions & Investments, a widely read publication of the investment management and investment consulting community. The deadline for respondent submissions to this RFP is January 20, 2011, which is also the scheduled date of the January, 2011 BWC Investment Committee meeting. It is anticipated that a new Finalist investment consultant will be selected by the RFP Evaluation Committee and will be recommended for consideration by the Investment Committee and Board at their respective March, 2011 meetings.

Mercer Contract Update

On October 18, 2010, Mercer gave the Bureau official notice that it was terminating its investment consulting services to the Bureau effective March 31, 2011. This notice was provided by Mercer to the Bureau consistent with the strategic corporate decision made by senior management of the firm and its parent company, Marsh McLennan, to cease providing consulting services to all of its public fund clients having defined benefit liabilities such as the Bureau. The termination of investment consulting services offered by Mercer to the Bureau effective March 31, 2011 is three months earlier than the ending date of June 30, 2011 of the existing BWC investment services consulting contract with Mercer under a second and final renewal option exercised by vote by the BWC Board of Directors at its March 26, 2010 meeting.

Both the investment staff and the Board of Directors of the Bureau desire to have Mercer complete the first quarter 2011 BWC Investment Performance Report for the three-month period ending March 31, 2011 in order to enable the Board to fulfill its fiduciary obligation to receive and review quarterly investment performance of each BWC trust fund portfolio. Mercer has agreed to provide this 1Q2011 Investment Performance Report to the Bureau in return for a one-time fee of $30,000 payable upon receipt of such completed Report. This Report is anticipated to be completed and delivered to the Bureau in mid-May, 2011.

The BWC Administrator and BWC staff have agreed to this one-time performance reporting fee payment to Mercer. BWC Legal staff is amending the existing Mercer contract to reflect the obligation of Mercer to prepare and deliver such Report to BWC in return for this one-time payment. Mercer will not provide any additional services under its contract beyond March 31, 2011 and Mercer will not make any verbal presentation of its final Investment Performance Report of the BWC portfolios to the Bureau. The current monthly retainer fee of $40,833 being paid by BWC to Mercer for its investment consulting services will end with the March, 2011 payment.

It is anticipated that a new investment consultant of the Bureau will replace Mercer and be under contract by April, 2011 if a new investment consultant is approved by the Board at its March, 2011 meeting. This timetable is consistent with representations made in the Investment Consultant RFP issued last month. This new investment consultant will be expected to provide quarterly investment performance reports for all BWC portfolios commencing with the second quarter 2011 period ending June 30, 2011 so as to maintain continuity of investment consulting performance reporting to the Board.

Annual Custodial Services Review – FY2010

As the current sub-custodian to the Treasurer of State, JPMorgan Chase Bank (JPMorgan) is responsible for the safekeeping of assets, transaction processing, receipt of income, asset reconciliation, reporting of positions, as well as various other duties for the BWC. The total annual fees paid to JPMorgan for custodial services in FY2010 were $1,032,000, which is up from $662,000 in the previous fiscal year primarily due to the transitioning of the State Insurance Fund. The most recent contract signed between JPMorgan and the Treasurer of State runs through June 2012 and reflects a reduction of fee schedules from the previous contract. As of June 30, 2010, JPMorgan held nearly 10,000 holdings on behalf of BWC, with a combined market value of approximately $19 billion including nearly $3 billion held in commingled funds by outside managers. Transition activity occurred in at least nine months during FY2010, with approximately 46% of all the transactions for the fiscal year being related to transition activity. JPMorgan was directly involved in every transition for the State Insurance Fund and performed within expectations.

With regards to the metrics used to evaluate the custodian, approximately 90.7% of all transactions were settled as scheduled, as compared to 97.5% in FY2009. Trade settlements were greatly impacted in FY2010 by transition activity and the overall mortgage market dislocation. The volume of annual income receipts increased by over 30% in FY2010 compared to FY2009 due to the change in asset allocation of the SIF portfolio adding many more bond and stock holdings and dividing certain mandates among multiple external investment managers. Corporate action activity and class action activity remained consistent within expectations. JPMorgan will continue to meet with BWC staff on a regular basis to discuss and review operations as well as any upcoming changes. The BWC Investment Division reports that the custodial services offered by JPMorgan were satisfactory for the fiscal year 2010.

Compliance

The investment portfolios were in compliance with the BWC Investment Policy at the end of November, 2010.

DATE: December 1, 2010

TO: BWC Investment Committee
BWC Board of Directors

FROM: Bruce Dunn, CFA, Chief Investment Officer

SUBJECT: **BWC Investment Policy Statement**
Revisions Summary
Fiscal Year 2009 To Date

The Investment Policy Statement (formally named "Statement of Investment Policy and Guidelines") or IPS of the Ohio Bureau of Workers' Compensation is a document that describes investment objectives, fiduciary standards, roles and responsibilities, asset allocation, asset target mixes and ranges, performance objectives, and investment management styles (passive/active) specific to the BWC investment portfolio and its six separate trust funds.

The following is a summary of the revisions made to the IPS beginning in FY2009 to date as approved by the BWC Investment Committee and the BWC Board of Directors. A previous BWC IPS Revisions Summary report for Fiscal Year 2008 dated August 11, 2008 similar in format to this report was presented by the CIO to the BWC Investment Committee at its August, 2008 meeting. The IPS Revision Date shown in chronological order in the tables to follow reflects the date approved by the Board of Directors. The details of all such IPS revisions and the respective wording changes to the IPS are reflected in materials and reports previously submitted to the BWC Investment Committee and Board of Directors by the BWC Chief Investment Officer and Mercer, as BWC investment consultant, for the purpose of obtaining approvals of all these revisions.

IPS Revision Date	Reason for Revision
February 29, 2008	In effect beginning of FY2009
August 29, 2008	Revise Section IV.C.vii to reflect changes in the permitted use of derivatives by approved investment managers in the management of commingled funds and in the management of portfolio transitions. Revise Section IV.C.ix regarding prohibited investments to allow for the use of leverage only for the purchase of financial future contracts that are generally purchased on margin and therefore meet the definition of leverage.
November 21, 2008	Revise Section IV.B regarding the portfolio rebalancing policy to allow for the possibility that required rebalancing actions may be suspended during periods of extreme market conditions and illiquid markets.
December 18, 2008	Revise Section IV.B to provide more clarity in the portfolio rebalancing policy and process applicable to trust fund portfolios with respect to the timing and magnitude of any portfolio rebalancing action to be executed.
April 30, 2009	Comprehensive changes led by new Section VI.A providing revised investment category asset classes, allocations and performance benchmarks for the State Insurance Fund (includes 80% to 70% weighting shift in fixed income (including cash) and 20% to 30% weighting shift in equities). Other changes include new Investment Objectives language (Section I); certain revisions in Board Responsibilities (Section III.A), Staff Responsibilities (Section III.B) and Investment Consultant Responsibilities (Section III.E); Investment Policy Guidelines regarding Asset Allocation Guidelines (Section IV.A); General Guidelines (Section IV.C) regarding maximum limit on funds managed by a single investment organization at time of hire utilizing passive investment strategies, investment objectives of the use of the major asset mandate classes, and further refinements regarding the use of derivatives. Certain additional changes involved removing outdated or obsolete language as well as repetitive or superfluous language.
May 29, 2009	Changes to Section VI.A pertaining to long duration fixed income benchmark of State Insurance Fund whereby the 37% target asset allocation weighting to the BarCap U.S. Long Government/Credit benchmark index was split into a 28% target asset allocation to the BarCap U.S. Long Credit Index and a 9% target asset allocation to the BarCap U.S. Long Government Index.
June 19, 2009	Changes to Section IV.C.vii(2) on Derivatives to permit investment transition managers to utilize both forward currency contracts and exchange traded funds as an effective tool for executing asset allocation transitions. Changes to Section IV.C.ix(a) on General Prohibitions to permit the selling of futures contracts by external investment managers for risk-control purposes.

IPS Revision Date	Reason for Revision
December 17, 2009	Changes to Section VI.C pertaining to revised investment category asset classes target allocations, permissible asset ownership variance ranges and performance benchmarks for the Coal Workers' Pneumoconiosis Fund. Fixed income asset category added BarCap U.S. Aggregate benchmark index and deleted BarCap U.S. Long Government/Credit benchmark index to shorten duration of fixed income portfolio. Equity asset category added Russell 3000 and MSCI ACWI ex-U.S. benchmark indexes and deleted S&P 500 benchmark index for the purpose of adding small/mid cap U.S. equity and non-U.S. equity exposure. Sentence in Section VI.C regarding setting of premiums also revised to add clarity.
January 22, 2010	Changes to Section VI.B pertaining to revised investment category asset classes target allocations, permissible asset ownership variance ranges and performance benchmarks for the Disabled Workers' Relief Fund (includes 20% to 30% weighting shifts in equities adding 10% non-U.S. equities and 80% to 70% weighting shifts in fixed income). Fixed income asset category added BarCap U.S. Aggregate benchmark index and deleted BarCap U.S. Long Government/Credit benchmark index to shorten duration of fixed income portfolio. Equity asset category added Russell 3000 and MSCI ACWI ex-U.S. benchmark indexes and deleted S&P 500 benchmark index for the purpose of adding small/mid cap U.S. equity and non-U.S. equity exposure. Second paragraph of Section VI.B revised for improved clarity.
March 26, 2010	Revise Section VI.D pertaining to the Public Work-Relief Employees' Fund and Section VI.E pertaining to the Marine Industry Fund to more accurately reflect the nature of the liabilities of each of these two specialty funds. This revision was the result of a strategy asset allocation analysis performed by Mercer on these two funds.
September 24, 2010	Changes to Section VIII on Fair Consideration/Public Interest Policy that specifically defines the criteria in Section VIII.A for qualified Minority-Owned and/or Women-Owned (MWBE) Investment Managers. Revised Section VIII.A specifically indicates that qualified MWBE investment managers are to be chosen through a Manager-of-Manager (MoM) program process whereby the Board will delegate authority to any Board approved MoM to identify, select and monitor appropriate MWBE investment managers. New Section VIII.A.iii lists the asset classes that may be eligible for MoM programs and new Section VIII.A.iv specifies a 1% target MWBE asset allocation for the State Insurance Fund.

The Ohio Bureau of Workers' Compensation

Statement of Investment Policy and Guidelines

Adopted by the BWC Board of Directors: September 24, 2010

Amends Adoption of: March 26, 2010

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

I. INVESTMENT OBJECTIVES

The primary investment objective is to manage assets to create and maintain a reasonable net asset position that has a high probability to meet identified long term liabilities. This net asset level will be achieved through an investment strategy that assumes a prudent amount of risk to earn sufficient returns to improve the level of net assets over time while keeping 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 net assets 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.

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. Approve the selection and termination of all Investment Consultants.

vii. Approve the criteria and procedures for the selection of the Investment Managers and General Partners.

viii. Approve the final selection and funding and termination of all Investment Managers and General Partners.

ix. 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.

x. 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.

xi. 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.

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. Rules governing and responsibilities of the Investment Committee are outlined in the Investment Committee Charter.

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 the Investment Consultant 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, and scope of investment activities 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. 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.

xiv. 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 to comply with all the regulatory obligations related thereto or direct investment managers to vote the proxies related to securities held in their respective portfolios and comply with all the regulatory obligations related thereto.

xv. Consult with the Funds' Investment Managers on at least a quarterly basis to discuss account performance and other material information.

xvi. Collect and review the current Form ADV, the document filed with the U.S. Securities and Exchange Commission to register as an investment advisor, 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.

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.

viii. Confirm a procedural due diligence search process to include criteria and procedures to be utilized for the selection of all Investment Managers.

ix. Provide the CIO with the firm's most recent Form ADV on an annual basis.

x. 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. It is the primary determinant of success in meeting long term investment objectives. 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 every three – five years, or more frequently if conditions warrant.

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

B. Rebalancing Policy

Rebalancing is the periodic adjustment of an asset portfolio for the purposes 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 assets 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 a policy of rebalancing when actual asset allocations fall outside of the desired ranges as detailed in Section VI. 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 assets class falls outside of the allowable ranges as outlined in Section VI 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 targeted 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 18½% 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 assets 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.

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.
- On a prospective basis, an investment organization which utilizes passive investment strategies, may manage up to 50% of the Funds' assets at the time it is hired. This guideline has been established to allow the BWC to take 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 offer the Funds a broad exposure to the return opportunities and investment characteristics associated with the U.S. domestic fixed income market. Each Fund's fixed income portfolio shall be invested in a manner that takes into consideration the duration and yield curve characteristics of its liabilities in order to preserve the reserve, provide for stable premiums and grow net assets. Passive fixed income investment mandates shall be managed to match the risk and return profile of an assigned fixed income benchmark resulting in performance with a reasonably low tracking error.

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. Passive U.S. equity investment mandates shall be managed to match the risk and return profile of an assigned U.S. equity benchmark resulting in performance with a reasonably low tracking error.

iv. **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. Passive international equity investment mandates shall be managed to match the risk and return profile of an assigned international equity benchmark resulting in performance with a reasonably low tracking error.

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 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. The Board will carefully evaluate whether remaining invested in that commingled fund is appropriate.

2. Permission is granted to investment transition managers to use futures on financial contracts, forward currency contracts, and Exchange Traded Funds in the management of portfolio transitions and in the management of portfolio rebalancing activity. The use of these instruments by investment transition managers for these purposes will typically begin and end in short periods of time.

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 stated in the definitions outlined below. Other broad classes of derivatives may be added in the future as deemed necessary and desireable 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. Interest-only (IOs) and principal-only (POs) instruments are prohibited.

   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.

   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 with the exception of selling futures contracts for risk-control purposes.

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.

V. PERFORMANCE OBJECTIVES

A. Total Fund

The primary performance objective for each Fund is to achieve an aggregate rate of return that equals or exceeds the return of each Fund's Performance Benchmark on a consistent basis. Each Fund's Performance Benchmark combines designated market and/or custom indexes for Investment Category asset classes, weighted by asset-allocation target percentages. The Performance Benchmarks for each Fund are named in Section VI. The investment category Performance Benchmarks are described in Appendix A.

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.

VI. 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 Board has adopted a long-term asset allocation policy that identifies the strategic target weights to each of the major asset classes with a specific performance benchmark for each asset class. The asset allocation is deemed reasonable by the Board given the risk and return objectives of the Fund within the context of the Fund's expected liabilities and the current funding ratio. Performance benchmarks have been selected to provide broadly diversified market coverage within each asset class segment.

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.

State Insurance Fund

Investment Category	Target Allocation	Permissible Range	Performance Benchmark
Indexed Long Duration Fixed Income – Credit Bonds	28%	24% - 32%	Barclays Capital U.S. Long Credit Index
Indexed Long Duration Fixed Income – U.S. Government Bonds	9%	6% - 12%	Barclays Capital U.S. Long Government Index
Indexed Barclays Capital Aggregate Fixed Income	15%	12% - 18%	Barclays Capital U.S. Aggregate Index
Indexed Treasury Inflation Protected Securities	17%	14% - 20%	Barclays Capital U.S. Treasury: U.S. TIPS Index
Cash and Cash Equivalents	1%	0 - 6%	3 Month U.S. Treasury Bills
Total Fixed Income	**70%**		
Indexed U.S. Equity	20%	17% - 23%	Russell 3000 Stock Index
Index Non-U.S. Equity	10%	7% - 13%	MSCI All World ex-U.S. Index
Total Public Equity	**30%**		
			Fund Performance Benchmark
Total State Insurance Fund	**100%**		A weighted index consisting of: 28% BC U.S. Long Credit Index 9% BC U.S. Long Govt. Index 15% BC U.S. Aggregate Index 17% BC U.S. TIPS Index 1% 3 Month U.S. Treasury Bills 20% Russell 3000 Index 10% MSCI All World Ex-U.S. Index

B. 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. However, premiums are set each year on a "pay as you go" basis. BWC originally collected premium at a level that is expected to cover the cost of future claims, but a State of Ohio Attorney General's Opinion in 1993 clarified that premiums should be on a pay as you go basis. Due to this prior treatment the liabilities of the fund, discounted at a rate that is consistent with the guidelines as established by the GASB, are supported by both cash and invested assets as well as an accrued premium asset

The Board has 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.

Disabled Workers' Relief Fund

Investment Category	Target Allocation	Permissible Range	Performance Benchmark
Indexed Barclays Capital Aggregate Fixed Income	34%	30% - 38%	Barclays Capital U.S. Aggregate Index
Indexed Treasury Inflation Protected Securities	35%	31% - 39%	Barclays Capital U.S. Treasury: U.S. TIPS Index
Cash and Cash Equivalents	1%	0 - 6%	3 Month U.S. Treasury Bills
Total Fixed Income	**70%**		
Indexed U.S. Equity	20%	17% - 23%	Russell 3000 Stock Index
Index Non-U.S. Equity	10%	7% - 13%	MSCI All World ex-U.S. Index
Total Public Equity	**30%**		
			Fund Performance Benchmark
Total Disabled Workers' Relief Fund	**100%**		A weighted index consisting of: 34% BC U.S. Aggregate Index 35% BC U.S. TIPS Index 1% 3 Month U.S. Treasury Bills 20% Russell 3000 Stock Index 10% MSCI All World ex-US Index

C. 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 and are assessed only to employers that have come into Ohio since May 1999. Liabilities are discounted at a rate that is consistent with the guidelines as established by the GASB.

The Board has 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.

Coal Workers' Pneumoconiosis Fund

Investment Category	Target Allocation	Permissible Range	Performance Benchmark
Indexed Barclays Capital Aggregate Fixed Income	39%	35% - 43%	Barclays Capital U.S. Aggregate Index
Indexed Treasury Inflation Protected Securities	40%	36% - 44%	Barclays Capital U.S. Treasury: U.S. TIPS Index
Cash and Cash Equivalents	1%	0 - 6%	3 Month U.S. Treasury Bills
Total Fixed Income	**80%**		
Indexed U.S. Equity	13%	10% - 16%	Russell 3000 Stock Index
Index Non-U.S. Equity	7%	4% - 10%	MSCI All World ex-U.S. Index
Total Public Equity	**20%**		
			Fund Performance Benchmark
Total: Coal Workers' Pneumoconiosis Fund	**100%**		A weighted index consisting of: 39% BC U.S. Aggregate Index 40% BC U.S. TIPS Index 1% 3 Month U.S. Treasury Bills 13% Russell 3000 Index 7% MSCI All World Ex-U.S. Index

D. 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 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 Board has 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.

Public Work-Relief Employees' Fund

Investment Category	Target Allocation	Permissible Range	Performance Benchmark
Indexed Intermediate Duration Fixed Income	99%	NA	Barclays Capital Intermediate U.S. Government / Credit Index
Cash and Cash Equivalents	1%	0 - 6%	3 Month U.S. Treasury Bills
Total Fixed Income	**100%**		
Total Public Equity	**0%**		
			Fund Performance Benchmark
Total: Public Work-Relief Employees' Fund	**100%**		A weighted index consisting of: 99% BC Intermediate U.S. Gov / Credit Index 1% 3 Month U.S. Treasury Bills

E. 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 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 Board has 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.

Marine Industry Fund

Investment Category	Target Allocation	Permissible Range	Performance Benchmark
Indexed Intermediate Duration Fixed Income	99%	94-100%	Barclays Capital Intermediate U.S. Government / Credit Index
Cash and Cash Equivalents	1%	0 - 6%	3 Month U.S. Treasury Bills
Total Fixed Income	**100%**		
Total Public Equity	**0%**		
			Fund Performance Benchmark
Total: Marine Industry Fund	**100%**		A weighted index consisting of: 99% BC Intermediate U.S. Gov/Credit Index 1% 3 Month U.S. Treasury Bills

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 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.

Self Insured Employers Guarantee Fund

Investment Category	Target Allocation	Permissible Range	Performance Benchmark
Cash and Cash Equivalents	100%	NA	3 Month U.S. Treasury Bills
Total Fixed Income	**100%**		
Total Public Equity	**0%**		
			Fund Performance Benchmark
Total: Self Insured Employers Guarantee Fund	**100%**		A weighted index consisting of: 100% 3 Month U.S. Treasury Bills

VII. INVESTMENT POLICY STATEMENT REVIEW

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.

VIII. FAIR CONSIDERATION / PUBLIC INTEREST POLICY

The Board desires that the BWC Investment Staff and the Investment Consultant identify, research and evaluate qualified Ohio investment managers, minority-owned investment managers and women-owned investment managers. It is the Board's intention to give such investment management firms fair consideration to fulfill the Funds' investment objective; however, the Board is not obligated to hire any qualified Ohio firm, minority-owned or women-owned firm on behalf of the Funds if such hiring is inconsistent with its fiduciary duty to the Funds and their stakeholders or in asset classes that have not been approved by the Board.

A. Qualified Minority-Owned and/or Women-Owned Investment Managers – Criteria

As used in this Investment Policy, a minority-owned investment manager shall be defined as an investment manager 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 and defined as women-owned investment managers.

As used in this Investment Policy, minority-owned and/or women-owned investment managers are collectively defined as Minority-or-Women Business Enterprise (MWBE) Investment Managers. Any MWBE Investment Manager must be a registered investment advisor under the Investment Advisors Act of 1940.

i. **Process**

With regards to MWBE Investment Manager strategy, it is the Board's desire to have Fund assets managed by such qualified firms through a Manager-of-Manager (MoM) program. BWC will not place Fund assets directly with MWBE firms but will instead place Fund assets directly with MoM firms. BWC Investment Staff and the Investment Consultant will identify qualified MoM firms through a selection process approved by the Board. Any MoM firm approved by the Board will be defined as a BWC Investment Manager with all of the duties and responsibilities of Section III.C of this Investment Policy. Any MoM firm must be a registered investment advisor under the Investment Advisors Act of 1940.

ii. **Monitoring and Responsibilities**

Any MoM approved by the Board will be responsible for identifying and monitoring the selected MWBE investment managers in the MoM portfolio managed for BWC. While the Board is responsible for reviewing and approving this MoM Policy, the Board delegates authority to the MoM to implement this MoM Policy and the MoM acknowledges its fiduciary responsibility for the assets it manages for BWC.

The MoM is responsible for the management of BWC assigned assets within the guidelines and restrictions of this Investment Policy adopted by the Board. The MoM is responsible for identifying and monitoring MWBE compliance to the approved investment guidelines. MWBE managers are hired into or removed from the MoM's portfolio of BWC assets based on information reviewed by the BWC Investment Staff and the Investment Consultant.

iii. **Eligible Asset Classes**

The Board may consider MoM programs that focus on one or more of the following approved asset classes:

1. Large Capitalization U.S. Equities
2. Small Capitalization U.S. Equities
3. Mid Capitalization U.S. Equities
4. Core U.S. Fixed Income
5. Non-U.S. Equities

iv. **Target Asset Allocation**

The MoM investment manager program for MWBE asset allocation will have a 1% target for invested assets of the State Insurance Fund.

B. <u>Qualified Ohio Investment Managers - Criteria</u>

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

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

Any qualified Ohio investment manager must be a registered investment advisor under the Investment Advisors Act of 1940.

APPENDIX A – Investment Category Performance Benchmarks

I. Barclays Capital U.S. Aggregate Index

The Barclays Capital U.S. Aggregate Index consists of taxable fixed income securities that are SEC-registered and U.S. dollar denominated. The index covers the broad U.S. investment grade fixed coupon rate bond market with index components for government and corporate securities, residential mortgage-backed securities, commercial mortgage-backed securities and asset-backed securities. Government and corporate securities include non-U.S. issuers, although non-U.S. issuers represent only a small portion of the index. Each security in the index must have at least one year to final maturity regardless of call features. Each security must be rated investment-grade (Baa3/BBB- or higher) in quality by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only one of the three ratings agencies rates a security, the rating must be investment grade. The index typically has a weighted average duration between three and five years which is considered to be intermediate-term in duration.

II. Barclays Capital U.S. Long Government/Credit Index

The Barclays Capital U.S. Long Government/Credit Index consists of taxable fixed income securities that are publicly issued and U.S. dollar denominated. The index includes fixed coupon rate U.S. treasury securities, U.S. federal agency securities, U.S. municipal securities, non-U.S. government securities and both U.S. and non-U.S. corporate securities. Non-U.S. issuers represent only a small portion of the index. Each security in the index must have a final maturity of at least ten years. The index is a component of the broad Barclays Capital U.S. Aggregate Index. Each security must be rated investment-grade (Baa3/BBB- or higher) in quality by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only one of the three ratings agencies rates a security, the rating must be investment grade. The index typically has a weighted average duration between ten and twelve years which is considered to be long-term in duration.

III. Barclays Capital U.S. Intermediate Government/Credit Index

The Barclays Capital U.S. Intermediate Government/Credit Index consists of taxable fixed income securities that are publicly issued and U.S. dollar denominated. The index includes fixed coupon rate U.S. treasury securities, U.S. federal agency securities, U.S. municipal securities, non-U.S. government securities and both U.S. and non-U.S. corporate securities. Non-U.S. issuers represent only a small portion of the index. Each security in the index must have a final maturity of at least one year and less than ten years. The index is a component of the broad Barclays Capital U.S. Aggregate Index. Each security must be rated investment-grade (Baa3/BBB- or higher) in quality by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only one of the three ratings agencies rates a security, the rating must be investment grade. The index typically has a weighted average duration between three and five years which is considered to be intermediate-term in duration.

IV. Barclays Capital U.S. Treasury: U.S. TIPS Index

The Barclays Capital U.S. Treasury: U.S. TIPS Index consists of all publicly issued U.S. dollar denominated Inflation-Protection securities (TIPS) issued by the U.S. Treasury that have at least one year to final maturity. The principal value of a TIPS increases with inflation and decreases with deflation, as measured by changes in the urban, non-seasonally adjusted consumer price index (CPI-U) calculated by the Bureau of Labor Statistics. The CPI-U index is a measure of the average change in prices paid by urban consumers for a fixed basket of goods and services. The principal value of a TIPS security is adjusted by a published index ratio reflecting the changes in the reference CPI-U index. TIPS securities have a stated fixed coupon rate of interest payable semi-annually that is applied to the inflation-adjusted principal value. Over the past several years, approximately one-third of the weighted market value of the index has been represented by issues in each of the maturity ranges of one-to-five years, five-to-ten years, and in excess of ten years. The index is considered to be intermediate-term in duration.

V. S&P 500 Index

The S&P 500 Index is a market capitalization weighted equity index maintained by Standard & Poors that seeks to be a benchmark of the U.S. large cap universe of stocks. S&P first identifies important industry categories and allocates a representative sample of stocks to each group. The companies chosen to be in the S&P 500 generally have the largest market values within their industry group. The industry categories are grouped into ten sectors: consumer discretionary, consumer staples, energy, financials, health care, industrials, information technology, materials, telecommunication services, and utilities. It is calculated on a total return basis with all dividends reinvested.

VI. Russell 3000 Index

The Russell 3000 Index is a market capitalization weighted equity index maintained by the Russell Investment Group that seeks to be a benchmark of the entire U.S. stock market. More specifically, this index encompasses the 3,000 largest U.S.-traded stocks, in which the underlying companies are all incorporated in the U.S., and represents 98% of the U.S. equity market. The Russell 3000 is comprised of stocks within the Russell 1000 and Russell 2000 Indices. Furthermore, the Russell 3000 Index is constructed to provide a comprehensive, unbiased, and stable barometer of the broad market and is completely reconstituted annually to ensure new and growing equities are reflected. It is calculated on a total return basis with all dividends reinvested.

VII. MSCI All Country World Index Ex U.S.

The MSCI All Country World Index Ex U.S. is a market-capitalization-weighted index maintained by Morgan Stanley Capital International (MSCI) and designed to provide a broad measure of stock performance throughout the world, with the exception of U.S.-based companies. The MSCI All Country World Index Ex U.S. includes both developed and emerging markets. The index attempts to replicate the industry composition of each local market and includes representative sampling of large, medium, and small capitalization companies. The index is calculated with net dividends reinvested in U.S. dollars.

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Ohio Bureau of Workers' Compensation
Sensitivity Analysis – State Insurance Fund

December 15, 2010

Guy M. Cooper
Jordan Nault
Kweku Obed

Sensitivity Analysis
State Insurance Fund

SIF Policy Targets

	Policy Target	Policy Market Value
Long Government	9.0%	$1,683,132,197
Long Credit	28.0%	$5,236,411,281
TIPS	17.0%	$3,179,249,706
Aggregate	15.0%	$2,805,220,329
Domestic Equity	20.0%	$3,740,293,772
International Equity	10.0%	$1,870,146,886
Cash	1.0%	$187,014,689
Total SIF	**100%**	**$18,701,468,860**

SIF total market value as of 10-31-10.

Sensitivity Analysis
Summary of Scenario Results

Summary of Scenario Results

Interest Rate Change	Equity Total Return -20%	-10%	Income*	+10%	+20%
0 bps	-3.3%	-0.3%	+3.3%	+5.7%	+8.7%
+50 bps	-6.6%	-3.6%	+0.1%	+2.4%	+5.4%
+100 bps	-9.6%	-6.6%	-2.9%	-0.6%	+2.4%
+150 bps	-12.3%	-9.3%	-5.7%	-3.3%	-0.3%
+200 bps	-14.9%	-11.9%	-8.3%	-5.9%	-2.9%

	-20%	-10%	Income*	+10%	+20%
0 bps	$18,085,480,086	$18,646,524,152	$19,326,322,545	$19,768,612,284	$20,329,656,349
+50 bps	$17,474,211,145	$18,035,255,211	$18,715,053,604	$19,157,343,343	$19,718,387,409
+100 bps	$16,914,733,558	$17,475,777,624	$18,155,576,017	$18,597,865,756	$19,158,909,821
+150 bps	$16,395,827,501	$16,956,871,566	$17,636,669,960	$18,078,959,698	$18,640,003,764
+200 bps	$15,913,465,593	$16,474,509,659	$17,154,308,052	$17,596,597,790	$18,157,641,856

Source Data

	Yield	Duration
Long Government	3.8%	13.7
Long Credit	5.6%	12.4
TIPS	2.3%	7.3
Aggregate	2.7%	4.8
Cash	0.2%	0.3

	Dividend Yield
Domestic Equity	1.8%
International Equity	2.8%

*Income scenarios include coupon income and dividend income and assume no equity price change.

Return assumptions and source data as of 11-30-10.

One year return assumptions include coupon income and convexity effects in the fixed income portfolios. One year return assumptions include dividend income and price change in the equity portfolios.

Interest rate increases assume a parallel shift in the yield curve.

Sensitivity Analysis
Flat Interest Rate Environment

Scenarios and Asset Class Returns

Scenario #	1	2	3	4	5
Interest Rate Change	0 bps	0 bps	0 bps	0 bps	0 bps
Equity Total Return	Income	+10.0%	+20.0%	-10.0%	-20.0%
Long Government	+3.8%	+3.8%	+3.8%	+3.8%	+3.8%
Long Credit	+5.6%	+5.6%	+5.6%	+5.6%	+5.6%
TIPS	+2.3%	+2.3%	+2.3%	+2.3%	+2.3%
Aggregate	+2.7%	+2.7%	+2.7%	+2.7%	+2.7%
Domestic Equity	+1.8%	+10.0%	+20.0%	-10.0%	-20.0%
International Equity	+2.8%	+10.0%	+20.0%	-10.0%	-20.0%
Cash	+0.2%	+0.2%	+0.2%	+0.2%	+0.2%
SIF Return	**+3.3%**	**+5.7%**	**+8.7%**	**-0.3%**	**-3.3%**
Resulting SIF MV	**$19,326,322,545**	**$19,768,612,284**	**$20,329,656,349**	**$18,646,524,152**	**$18,085,480,086**
MV Change	**$624,853,685**	**$1,067,143,424**	**$1,628,187,489**	**-$54,944,708**	**-$615,988,774**

- The best case scenario is a 0 bps change in interest rates and a 20% increase in equity, which produces an 8.7% return and a resulting market value of $20,329,656,349.
- The medium case scenario is a 0 bps change in interest rates and a 0% price change in equity, which produces a 3.3% return and a resulting market value of $19,326,322,545.
- The worst case scenario is a 0 bps change in interest rates and a 20% decrease in equity, which produces a -3.3% return and a resulting market value of $18,085,480,086.

Sensitivity Analysis
Interest Rates Increase 50 bps

Scenarios and Asset Class Returns

Scenario #	6	7	8	9	10
Interest Rate Change	+50 bps	+50 bps	+50 bps	+50 bps	+50 bps
Equity Total Return	Income	+10.0%	+20.0%	-10.0%	-20.0%
Long Government	-2.6%	-2.6%	-2.6%	-2.6%	-2.6%
Long Credit	-0.9%	-0.9%	-0.9%	-0.9%	-0.9%
TIPS	0.0%	0.0%	0.0%	0.0%	0.0%
Aggregate	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
Domestic Equity	+1.8%	+10.0%	+20.0%	-10.0%	-20.0%
International Equity	+2.8%	+10.0%	+20.0%	-10.0%	-20.0%
Cash	+0.4%	+0.4%	+0.4%	+0.4%	+0.4%
SIF Return	**+0.1%**	**+2.4%**	**+5.4%**	**-3.6%**	**-6.6%**
Resulting SIF MV	**$18,715,053,604**	**$19,157,343,343**	**$19,718,387,409**	**$18,035,255,211**	**$17,474,211,145**
MV Change	**+$13,584,744**	**+$455,874,483**	**+$1,016,918,549**	**-$666,213,649**	**-$1,227,257,715**

- The best case scenario is a 50 bps increase in interest rates and a 20% increase in equity, which produces a 5.4% return and a resulting market value of $19,718,387,409.
- The medium case scenario is a 50 bps increase in interest rates and a 0% price change in equity, which produces a 0.1% return and a resulting market value of $18,715,053,604.
- The worst case scenario is a 50 bps increase in interest rates and a 20% decrease in equity, which produces a -6.6% return and a resulting market value of $17,474,211,145.

Sensitivity Analysis
Interest Rates Increase 100 bps

Scenarios and Asset Class Returns

Scenario #	11	12	13	14	15
Interest Rate Change	+100 bps	+100 bps	+100 bps	+100 bps	+100 bps
Equity Total Return	Income	+10.0%	+20.0%	-10.0%	-20.0%
Long Government	-8.0%	-8.0%	-8.0%	-8.0%	-8.0%
Long Credit	-6.1%	-6.1%	-6.1%	-6.1%	-6.1%
TIPS	-3.4%	-3.4%	-3.4%	-3.4%	-3.4%
Aggregate	-3.7%	-3.7%	-3.7%	-3.7%	-3.7%
Domestic Equity	+1.8%	+10.0%	+20.0%	-10.0%	-20.0%
International Equity	+2.8%	+10.0%	+20.0%	-10.0%	-20.0%
Cash	+0.7%	+0.7%	+0.7%	+0.7%	+0.7%
SIF Return	**-2.9%**	**-0.6%**	**+2.4%**	**-6.6%**	**-9.6%**
Resulting SIF MV	**$18,155,576,017**	**$18,597,865,756**	**$19,158,909,821**	**$17,475,777,624**	**$16,914,733,558**
MV Change	**-$545,892,843**	**-$103,603,104**	**+$457,440,961**	**-$1,225,691,236**	**-$1,786,735,302**

- The best case scenario is a 100 bps increase in interest rates and a 20% increase in equity, which produces a 2.4% return and a resulting market value of $19,158,909,821.
- The medium case scenario is a 100 bps increase in interest rates and a 0% price change in equity, which produces a -2.9% return and a resulting market value of $18,155,576,017.
- The worst case scenario is a 100 bps increase in interest rates and a 20% decrease in equity, which produces a -9.6% return and a resulting market value of $16,914,733,558.

Sensitivity Analysis
Interest Rates Increase 150 bps

Scenarios and Asset Class Returns

Scenario #	16	17	18	19	20
Interest Rate Change	+150 bps	+150 bps	+150 bps	+150 bps	+150 bps
Equity Total Return	Income	+10.0%	+20.0%	-10.0%	-20.0%
Long Government	-13.1%	-13.1%	-13.1%	-13.1%	-13.1%
Long Credit	-10.9%	-10.9%	-10.9%	-10.9%	-10.9%
TIPS	-6.6%	-6.6%	-6.6%	-6.6%	-6.6%
Aggregate	-6.6%	-6.6%	-6.6%	-6.6%	-6.6%
Domestic Equity	+1.8%	+10.0%	+20.0%	-10.0%	-20.0%
International Equity	+2.8%	+10.0%	+20.0%	-10.0%	-20.0%
Cash	+0.9%	+0.9%	+0.9%	+0.9%	+0.9%
SIF Return	**-5.7%**	**-3.3%**	**-0.3%**	**-9.3%**	**-12.3%**
Resulting SIF MV	**$17,636,669,960**	**$18,078,959,698**	**$18,640,003,764**	**$16,956,871,566**	**$16,395,827,501**
MV Change	**-$1,064,798,900**	**-$622,509,162**	**-$61,465,096**	**-$1,744,597,294**	**-$2,305,641,359**

- The best case scenario is a 150 bps increase in interest rates and a 20% increase in equity, which produces a -0.3% return and a resulting market value of $18,640,003,764.
- The medium case scenario is a 150 bps increase in interest rates and a 0% price change in equity, which produces a -5.7% return and a resulting market value of $17,636,669,960.
- The worst case scenario is a 150 bps increase in interest rates and a 20% decrease in equity, which produces a -12.3% return and a resulting market value of $16,395,827,501.

Sensitivity Analysis
Interest Rates Increase 200 bps

Scenarios and Asset Class Returns

Scenario #	21	22	23	24	25
Interest Rate Change	+200 bps	+200 bps	+200 bps	+200 bps	+200 bps
Equity Total Return	Income	+10.0%	+20.0%	-10.0%	-20.0%
Long Government	-17.7%	-17.7%	-17.7%	-17.7%	-17.7%
Long Credit	-15.4%	-15.4%	-15.4%	-15.4%	-15.4%
TIPS	-9.6%	-9.6%	-9.6%	-9.6%	-9.6%
Aggregate	-9.3%	-9.3%	-9.3%	-9.3%	-9.3%
Domestic Equity	+1.8%	+10.0%	+20.0%	-10.0%	-20.0%
International Equity	+2.8%	+10.0%	+20.0%	-10.0%	-20.0%
Cash	+1.2%	+1.2%	+1.2%	+1.2%	+1.2%
SIF Return	**-8.3%**	**-5.9%**	**-2.9%**	**-11.9%**	**-14.9%**
Resulting SIF MV	**$17,154,308,052**	**$17,596,597,790**	**$18,157,641,856**	**$16,474,509,659**	**$15,913,465,593**
MV Change	**-$1,547,160,808**	**-$1,104,871,070**	**-$543,827,004**	**-$2,226,959,201**	**-$2,788,003,267**

- The best case scenario is a 200 bps increase in interest rates and a 20% increase in equity, which produces a -2.9% return and a resulting market value of $18,157,641,856.
- The medium case scenario is a 200 bps increase in interest rates and a 0% price change in equity, which produces a -8.3% return and a resulting market value of $17,154,308,052.
- The worst case scenario is a 200 bps increase in interest rates and a 20% decrease in equity, which produces a -14.9% return and a resulting market value of $15,913,465,593.

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Ohio Bureau of Workers' Compensation
Active vs. Passive Management
Long Credit

December 15, 2010

Guy M. Cooper
Jordan Nault
Kweku Obed

Active vs. Passive Management

Active Long Credit

Proposed Active Long Credit Objectives
▪ Provide a hedge against the OBWC's liabilities
▪ Provide an enhanced risk / return profile relative to the index – Downside market protection – Outperform market index by 25 bps over the trailing three-year period net-of-fees – Outperform peer group median over the trailing three-year period net-of-fees
▪ Select complementary active managers

Active vs. Passive Management
Turnover and Excess Return Expectations

Turnover and Excess Return Expectations

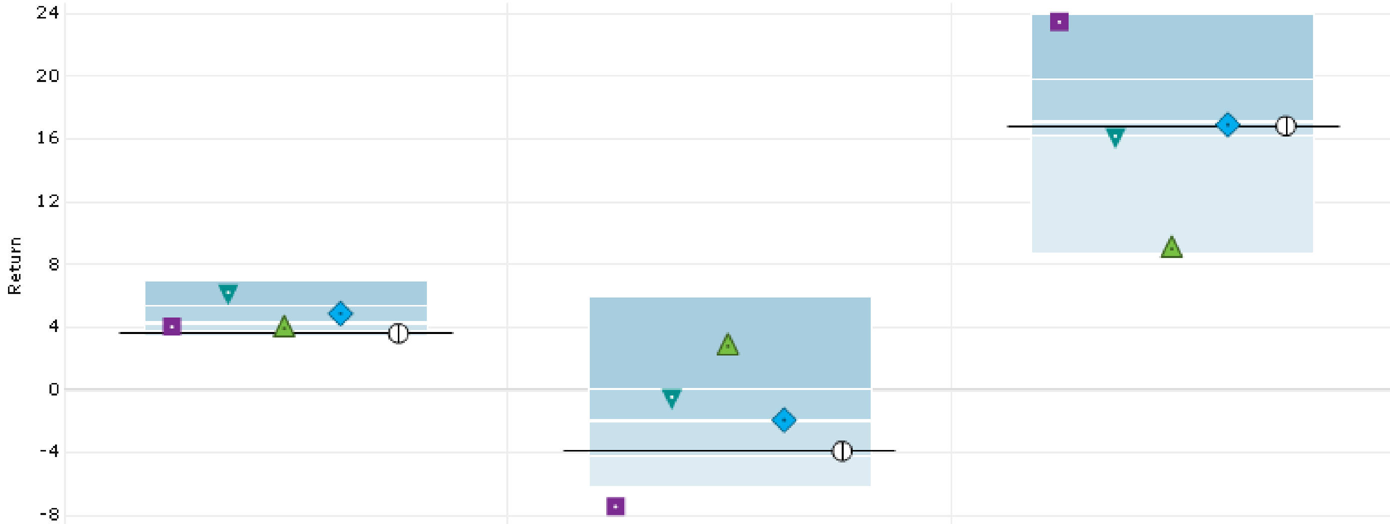
	Manager A	Manager B	Manager C	Manager D	Average
Turnover (Annual Avg Over Trailing 5 years)	100%	158%	23%	170%	113%
Annual Excess Return Target (Net of Fees)	0.37%	0.43%	0.34%	0.35%	0.37%

Active vs. Passive Management

Highly Rated Managers in Long Duration Credit

Return in $US (before fees) over last 3 calendar years ending December-09

Comparison with the US Fixed Long Credit universe (percentile ranking).



	2007 (%)	2008 (%)	2009 (%)
Manager A	4.0 *(55)*	-7.4 *(100)*	23.5 *(6)*
Manager B	6.2 *(18)*	-0.4 *(38)*	16.2 *(75)*
Manager C	3.9 *(64)*	2.8 *(15)*	9.0 *(94)*
Manager D	4.9 *(36)*	-1.9 *(46)*	16.9 *(56)*
BCUSLCR	3.6 *(82)*	-3.9 *(70)*	16.8 *(59)*
5th Percentile	7.0	6.0	24.0
Upper Quartile	5.4	0.1	19.8
Median	4.3	-2.0	17.1
Lower Quartile	3.8	-4.2	16.2
95th Percentile	3.5	-6.2	8.8
Number	12	14	17

Active vs. Passive Management
Performance Attribution – Manager A

- **2007:**
  - Contributed to relative performance:
    - Overweight allocations to the utilities and industrials sectors.
  - Detracted from relative performance:
    - An overweight allocation to the financials sector and an underweight allocation to non-corporate credit.
- **2008:**
  - Contributed to relative performance:
    - An overweight allocation to the industrials sector.
    - An overweight allocation to senior debt versus subordinated debt of financial institutions.
  - Detracted from relative performance:
    - An overweight allocation to BBB-rated issues.
- **2009:**
  - Contributed to relative performance:
    - An overweight allocation to BBB-rated issues.

Active vs. Passive Management
Performance Attribution – Manager B

- **2007:**
  - Contributed to relative performance:
    - Security selection in corporate bonds.
    - Overweight allocations to the telecom and healthcare sector.
    - Underweight allocation to the banking industry.
  - Detracted from relative performance:
    - An overweight allocation to structured product.
- **2008:**
  - Contributed to relative performance:
    - Overweight allocations to the healthcare and capital goods sectors.
  - Detracted from relative performance:
    - Overweight allocations to the airlines, building materials, and insurance industries.
    - Overweight allocations to Lehman Brothers and JPMorgan.
- **2009:**
  - Contributed to relative performance:
    - An overweight allocation to the financials sector, namely JPMorgan and Bank of America.
  - Detracted from relative performance:
    - An overweight allocation to the healthcare sector.

Active vs. Passive Management
Performance Attribution – Manager C

- **2007:**
  - Detracted from relative performance:
    - An overweight allocation to the banking industry.
    - Security selection in non-corporate credit.
- **2008:**
  - Detracted from relative performance:
    - An overweight allocation to Lehman Brothers.
    - A modest exposure to commercial mortgage-backed securities.
- **2009:**
  - Contributed to relative performance:
    - An overweight allocation to the REITs industry.
    - An underweight allocation to the consumer non-cyclical industry.

Active vs. Passive Management
Performance Attribution – Manager D

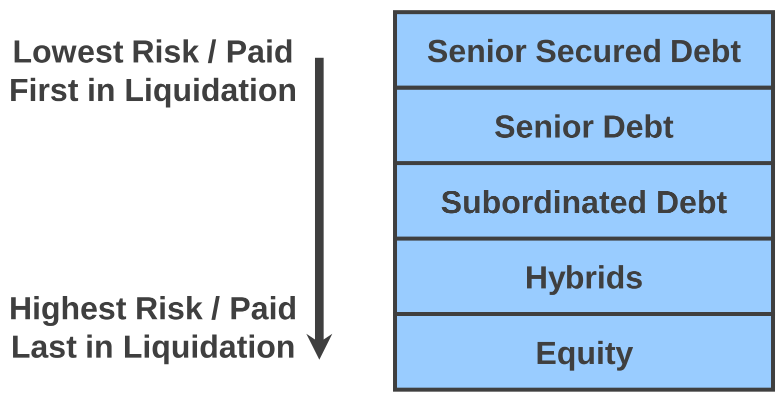
- **2007:**
  - Contributed to relative performance:
    - Yield curve positioning.
    - Sector positioning.
    - Security Selection.
- **2008:**
  - Contributed to relative performance:
    - Yield curve positioning.
    - Sector positioning.
    - Security selection.
- **2009:**
  - Contributed to relative performance:
    - Security selection.
  - Detracted from relative performance:
    - Yield curve positioning.
    - Sector positioning.

Active vs. Passive Management

Case Study – Manager A

Credit Analysis - Senior Debt of Financial Institutions

- The manager took positions in senior debt of financial institutions as opposed to subordinated debt. They believed the additional risk of owning subordinated debt for spread pick-ups of 10-20 bps over senior debt offered in 2007 and early 2008 were not warranted.
- The analysis was based on historical senior/subordinated spreads and an understanding of leverage and the lack of disclosure of bank's liabilities, both on and off their balance sheet.
- Their portfolio was rewarded in late 2008 and 2009, as senior/subordinated finance spreads widened to more than 400 basis points.



Active vs. Passive Management

Case Study – Manager A

Fundamental Analysis and Access to Management - Spectra
▪ Spectra Energy has been a position for the manager since September 2008. Spectra Energy was spun-off from Duke Energy in 2007 and operates pipeline in North America.
▪ The analysis was based on a thorough understanding of their business through fundamental credit research and access to senior management of the company. The firm's significant assets under management provides them with hundreds of company visits with senior management each year.
▪ Spectra issued 30-year debt in September 2008 at a spread over Treasuries of 320 bps; this issue is trading today at 140 bps, or an increase of 22 points, in the price of the bond.

Active vs. Passive Management

Case Study – Manager D

Fundamental Analysis and Relative Value Trades – Comcast and TimeWarner

- A potential source of performance enhancement is relative value trading. For example, in the Media-Cable subsector, the portfolio had been overweight Comcast and underweight TimeWarner Cable.
- The spread differential between these two companies, which had been hovering around 20 bps, grew to 60 bps. As a result, the manager decided to sell Comcast and buy TimeWarner Cable.
- While the manager believed Comcast was stronger fundamentally, they also believed TimeWarner Cable’s debt had been oversold by the market.

Active vs. Passive Management

Fees

- The fees below are based on a $2 billion account. Manager C specifically noted that they would be willing to negotiate.
- **Manager A:** 0.13%
- **Manager B:** 0.17%
- **Manager C:** 0.16%
- **Manager D:** 0.12%
- **Mercer Median Long Duration Credit Fee on:**
  - **$250 Million:** 0.24%
  - **Indicative $500 Million:** 0.19%
  - **Indicative $1 Billion:** 0.07%

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Ohio Bureau of Workers' Compensation

Active vs. Passive Management
Long Credit

November 18, 2010

Guy M. Cooper
Jordan Nault
Kweku Obed

Active vs. Passive Management

Key Evaluation Metrics

- The decision to employ active or passive management should consider the market efficiency of the asset class, which affects a manager's ability to add value over a market benchmark.
- Greater market efficiency = less opportunities to generate alpha.
- Considering the risk of active managers, and their additional volatility relative to the benchmark is also important when determining which approach to employ.
- Associated fees and expenses should be considered as they can erode a manager's excess return (alpha).

Active vs. Passive Management
Long Duration Credit Basics

Long Duration Credit
▪ Long duration fixed income is typically utilized within an investment portfolio to serve as a hedge against long dated liabilities.
▪ Duration measures a bond’s sensitivity to interest rate changes. Longer duration bonds are more sensitive to changes in interest rates than shorter duration bonds. Therefore, long duration bonds will experience greater volatility than shorter duration bonds.
▪ Long duration government fixed income is considered to be a more efficient asset class segment than long duration credit fixed income.
▪ In-depth fundamental research (free cash flow and balance sheet analysis), capital structure and covenant analysis, as well as an understanding of key industry trends may help skillful managers add alpha over the Barclays Capital US Long Credit Index.
▪ Mercer’s Fee Study shows that the average fee for an actively managed $250 million Long Duration portfolio is 0.22%.*

*Data sourced from Mercer Global Investment Manager Database. Long duration median fee includes government/credit mandates.

Active vs. Passive Management

Pros and Cons of Active Management

Pros of Active Management
▪ Potential to outperform the index
▪ Potential to hold a more liquid long credit portfolio than the index
▪ Potential to avoid credit downgrades

Cons of Active Management
▪ Risk of underperforming the index
▪ Higher management fees
▪ Increased governance budget to monitor, hire, and terminate managers

Active vs. Passive Management
Sources of Value Added in Long Duration Credit

% of Value Added as Reported by Manager

	Duration Management	Yield Curve Positioning	Sector Selection	Credit/Quality Weightings	Security Selection	Arbitrage and Spread Anomalies	Other
Manager A	5	15	25	10	45	0	0
Manager B	0	0	40	0	60	0	0
Manager C	10	0	30	30	30	0	0
Manager D	0	20	40	0	30	0	10
Average for Highly Rated Managers	**4**	**9**	**34**	**10**	**41**	**0**	**3**
Manager E	5	10	45	0	40	0	0
Average for Long Credit Universe[1]	**5**	**6**	**28**	**7**	**52**	**0**	**3**

- Highly rated managers claim to add 75% of their value in sector and security selection.
- Duration management appears to be a nominal source of alpha generation for active managers.

[1] Comprised of 15 managers

Active vs. Passive Management

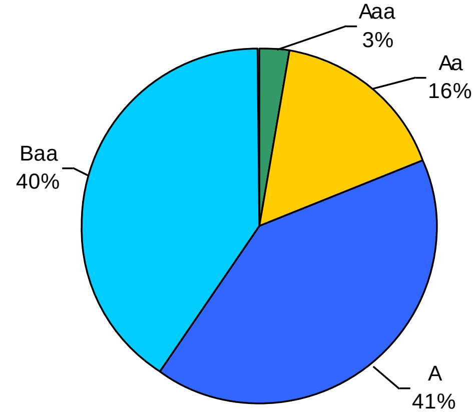
Portfolio Manager Capabilities

Security Selection - Avoiding Downgrades

- Active management generally seeks to avoid downgrades on portfolio holdings. Strong credit research and monitoring enables active portfolios to avoid deteriorating balance sheets and get ahead of rating agency actions. Robust credit research can also allow managers to acquire or dispose of mispriced (over-valued or under-valued) securities.
- The Baa segment represents over 40% of the market value of the Barclays Capital Long Credit Index. This segment offers the greatest potential return with the highest potential risk. Anything rated lower than Baa becomes “non-investment grade” or high yield.

Moody's Rating	Definition
Aaa	Prime. Maximum Safety.
Aa	High Grade. High Quality.
A	Upper Medium Grade.
Baa	Medium Grade.
Ba	Speculative.
B	Highly Speculative.
Caa	In Poor Standing.
Ca	Extremely Speculative.
C	May be in Default.

Credit Quality by Market Value in the Barclays Capital Long Credit Index

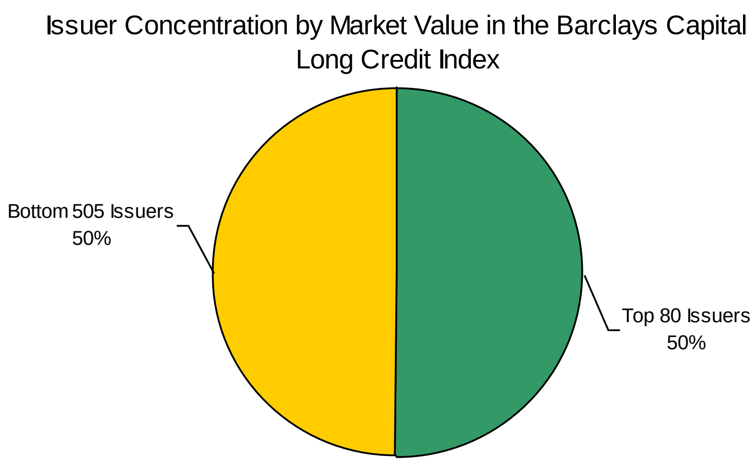


As of 8-31-10

Active vs. Passive Management
Portfolio Manager Capabilities

Security Selection – Ability to Overweight Select Smaller Debt Issuers

- The Barclays Capital Long Credit Index is a market cap weighted Index. The 80 largest issuer weightings in the Index comprise 50% of the market value. The remaining 505 issuers encompass the remaining 50% of the Index. There are 1209 issues in the Index as of 8/31/10.
- An active manager is able to find hidden value in the smaller credits that may or may not exist in the larger credits. The smaller debt issuers are often less followed by Wall Street and may present an opportunity to exploit market inefficiencies.



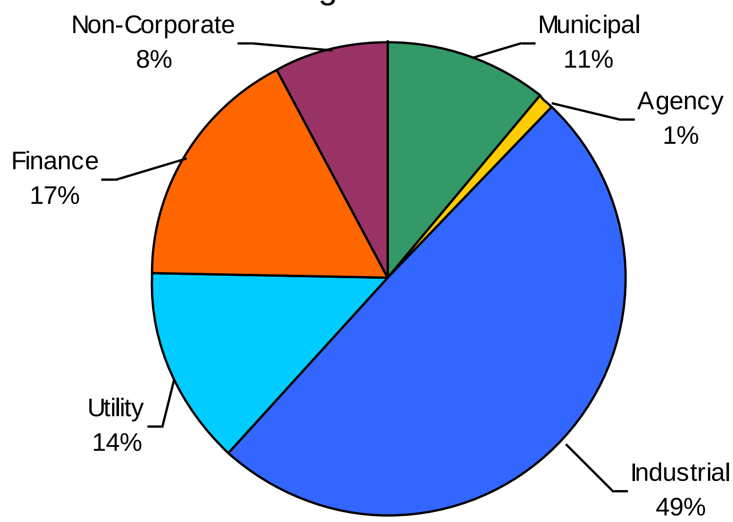
As of 8-31-10

Active vs. Passive Management
Portfolio Manager Capabilities

Sector Selection

- Managers can add value by being overweight and underweight sectors based on fundamental research and market sentiment. Active managers are able to underweight underperforming sectors, e.g. bonds of financial companies in 2008, while passive portfolios must hold the "losing names" that are part of the index.

Sector Breakdown by Market Value in the Barclays Capital Long Credit Index



As of 8-31-10

Active vs. Passive Management
Sample Portfolio Characteristics

Sample Portfolio Characteristics*

	Manager A	Manager B	Manager C	Manager D	Manager E	Barclays Capital Long Credit Index
Yield To Maturity	6.1	5.8	5.6	5.7	5.9	**5.8**
Coupon	6.7	6.8	6.4	6.6	6.6	**6.7**
Credit Quality	BBB+	A-	A-	A-	A-	**A**
Duration	11.6	11.7	12.8	12.0	11.2	**12.4**
# of Securities**	100	219	233	351	262	**1158**
US Treasury / Agency	0.5	0.8	10.0	3.5	0.5	**0.7**
Municipal	1.5	1.7	0.0	0.0	6.8	**10.9**
Industrials	58.3	57.7	46.0	51.9	51.0	**49.6**
Utilities	15.3	12.0	14.0	13.6	13.3	**13.8**
Financials	22.6	26.1	28.0	16.9	16.7	**17.2**
Non-Corporate	0.7	0.5	0.0	13.8	5.9	**7.8**
Cash Equivalents	1.1	1.1	2.0	0.4	0.7	**0.0**
Other	0.0	0.0	0.0	0.0	5.2	**0.0**

*Data as of 6/30/10

**The BlackRock passively managed portfolio had 757 securities and the SSgA passively managed portfolio had 839 securities as of 6/30/10.

Active vs. Passive Management

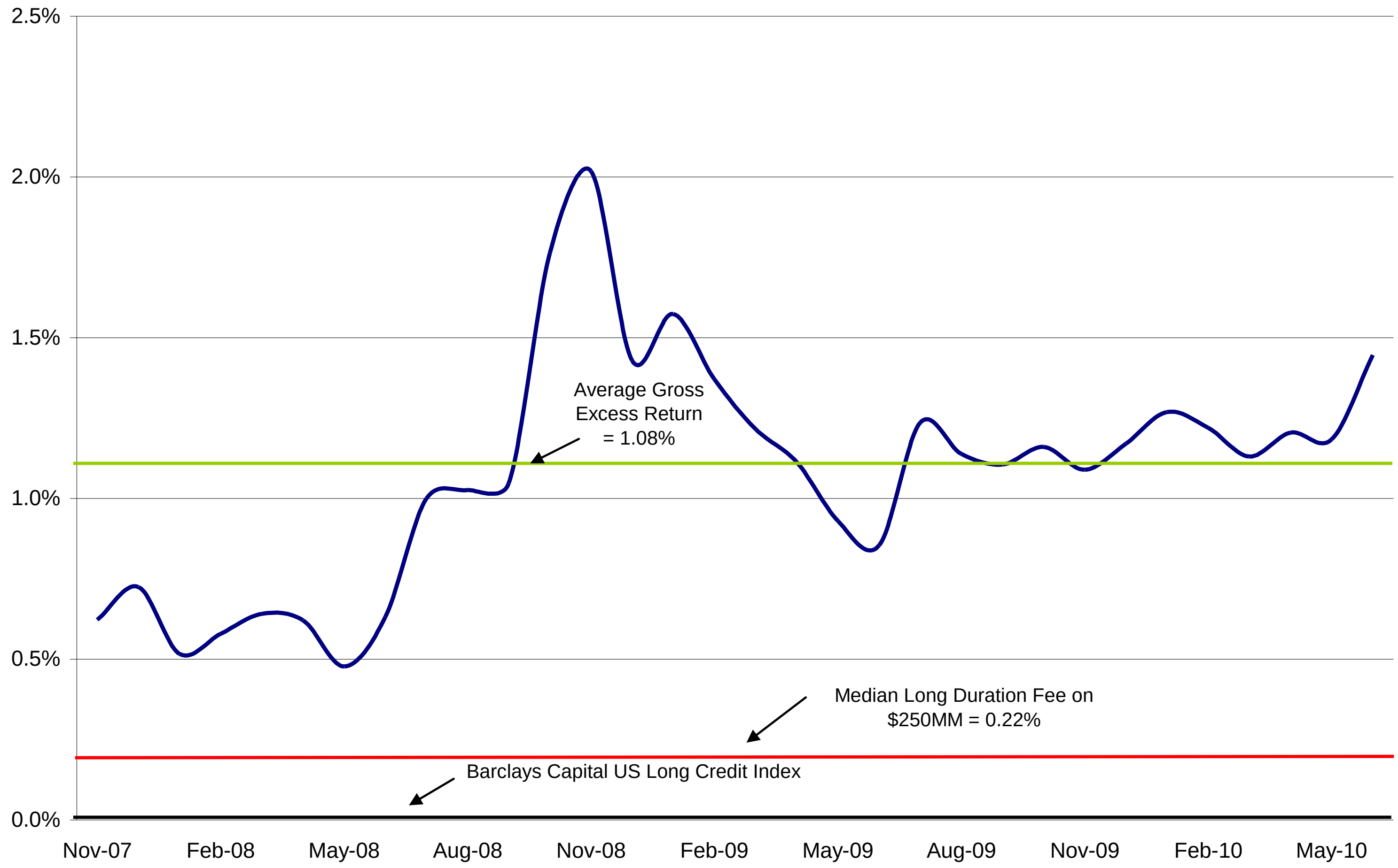
Definitions for quantitative chart analysis

- **Reward to risk:** A ratio used by many investors to compare the expected returns of an investment to the amount of risk undertaken to capture these returns. This ratio can be calculated by dividing excess returns (alpha) by some measure of risk (for example standard deviation).
- **Standard deviation:** The standard deviation of an investment is used to measure an asset’s volatility, or "risk". An investment that exhibits widely different (volatile) return streams relative to a defined benchmark over successive measurement periods will have a high standard deviation.
- **Tracking error:** A measure of how closely a portfolio follows the index to which it is benchmarked. Some portfolios are expected to replicate, before trading and other costs, the returns of an index exactly (a ‘passive’ index fund), while others are expected to 'actively manage' the portfolio by deviating from the index in order to generate excess returns. Tracking error (also called active risk) is a measure of the portfolio’s deviation from the benchmark. An index fund would have a tracking error close to zero, while an actively managed portfolio would normally have a higher tracking error.
- **Information ratio:** Dividing portfolio active return (alpha) by portfolio tracking error yields the information ratio, which is a risk adjusted performance metric. Active return is the amount of outperformance (or underperformance) of a portfolio relative to a pre-determined benchmark index. A high information ratio is an indicator of value-added performance.

Active vs. Passive Management
Average Excess Return - Long Duration Credit

The average gross excess return of 1.08% exceeds the median fee of 0.22%.

US Long Credit Universe Median Rolling Three-Year Excess Return (Gross-of-Fee)



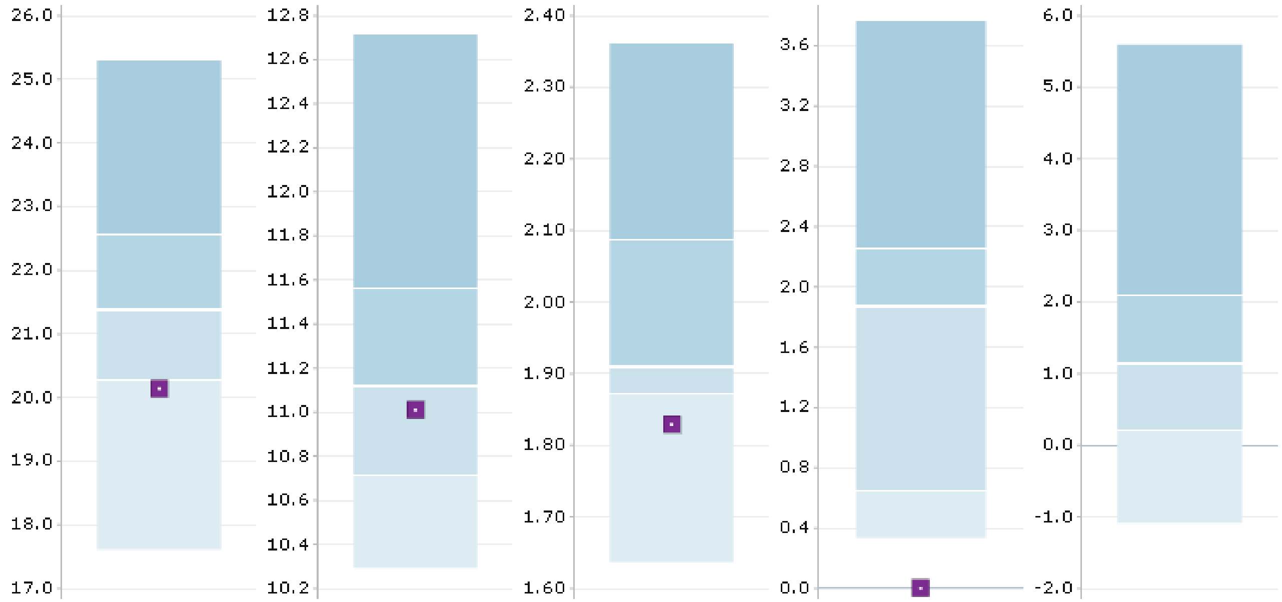
Active vs. Passive Management

Median Manager vs. Benchmark Comparison*

- For the recent one-year period, the median Long Credit manager exhibited a higher return and higher reward to risk ratio than the benchmark.

Performance characteristics vs. Barclays Capital US Long Credit in $US (before fees) over 1 year ending June-10 (quarterly calculations).

Comparison with the US Fixed Long Credit universe (percentile ranking).



	Ret (%)	Std Dev (%)	Ret/SD	TE (%)	IR
BCUSLCR	20.1 *(81)*	11.0 *(56)*	1.8 *(79)*	0.0 *(100)*	-
5th Percentile	25.3	12.7	2.4	3.8	5.6
Upper Quartile	22.6	11.6	2.1	2.3	2.1
Median	21.4	11.1	1.9	1.9	1.1
Lower Quartile	20.3	10.7	1.9	0.6	0.2
95th Percentile	17.6	10.3	1.6	0.3	-1.1
Number	22	22	22	22	22

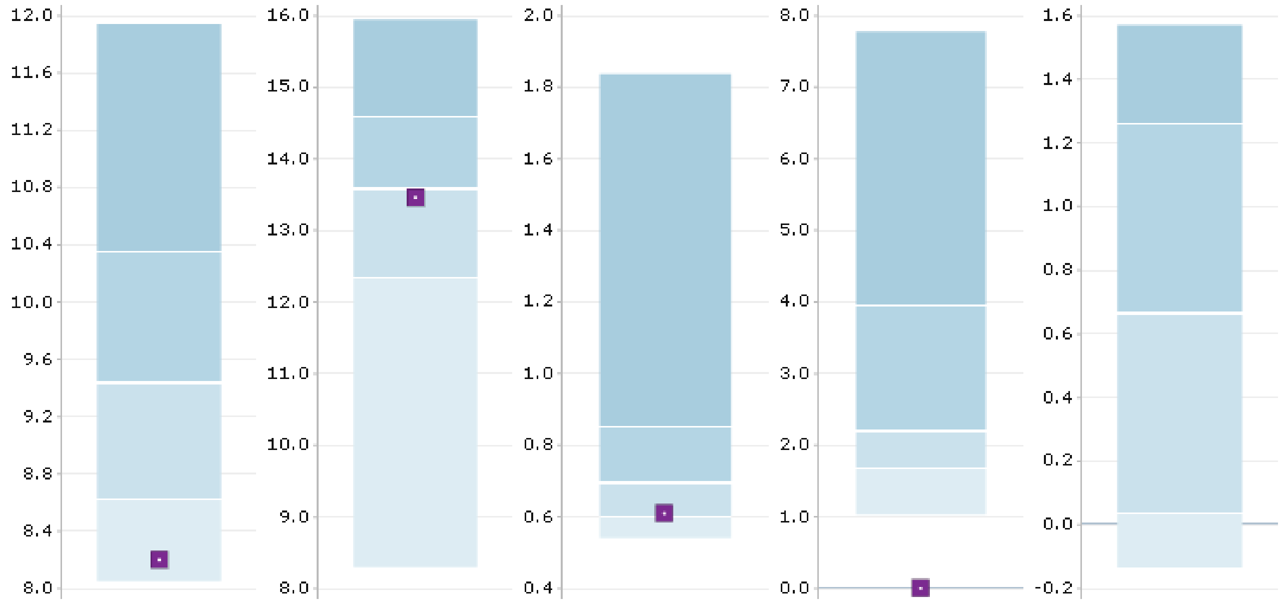
*Data is sourced from the Mercer Global Investment Manager Database.

Active vs. Passive Management
Median Manager vs. Benchmark Comparison

- For the recent three-year period, the median Long Credit manager exhibited a higher return and higher reward to risk ratio than the benchmark.

Performance characteristics vs. Barclays Capital US Long Credit in $US (before fees) over 3 years ending June-10 (quarterly calculations).

Comparison with the US Fixed Long Credit universe (percentile ranking).



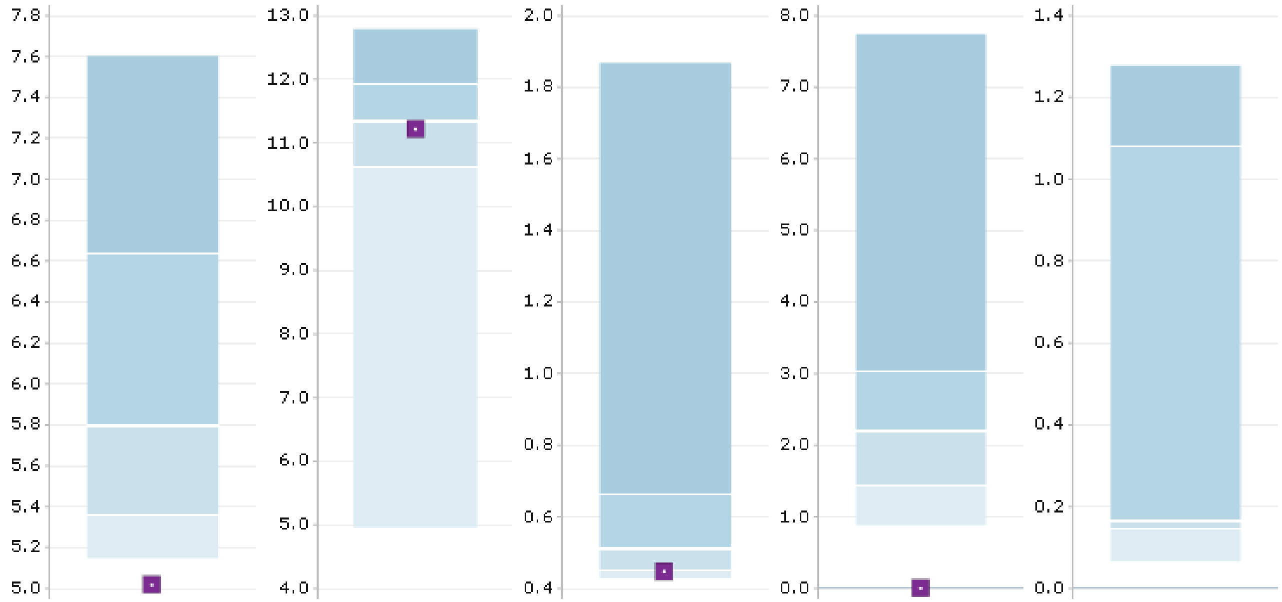
	Ret (%pa)	Std Dev (%pa)	Ret/SD	TE (%pa)	IR
▪ BCUSLCR	8.2 *(92)*	13.5 *(53)*	0.6 *(73)*	0.0 *(100)*	-
5th Percentile	11.9	15.9	1.8	7.8	1.6
Upper Quartile	10.4	14.6	0.9	3.9	1.3
Median	9.4	13.6	0.7	2.2	0.7
Lower Quartile	8.6	12.3	0.6	1.7	0.0
95th Percentile	8.0	8.3	0.5	1.0	-0.1
Number	13	13	13	13	13

Active vs. Passive Management
Median Manager vs. Benchmark Comparison

- For the recent five-year period, the median Long Credit manager exhibited a higher return and higher reward to risk ratio than the benchmark.

Performance characteristics vs. Barclays Capital US Long Credit in $US (before fees) over 5 years ending June-10 (quarterly calculations).

Comparison with the US Fixed Long Credit universe (percentile ranking).



	Ret (%pa)	Std Dev (%pa)	Ret/SD	TE (%pa)	IR
BCUSLCR	5.0 *(100)*	11.2 *(65)*	0.4 *(78)*	0.0 *(100)*	-
5th Percentile	7.6	12.8	1.9	7.7	1.3
Upper Quartile	6.6	11.9	0.7	3.0	1.1
Median	5.8	11.3	0.5	2.2	0.2
Lower Quartile	5.4	10.6	0.5	1.4	0.1
95th Percentile	5.1	5.0	0.4	0.9	0.1
Number	7	7	7	7	7

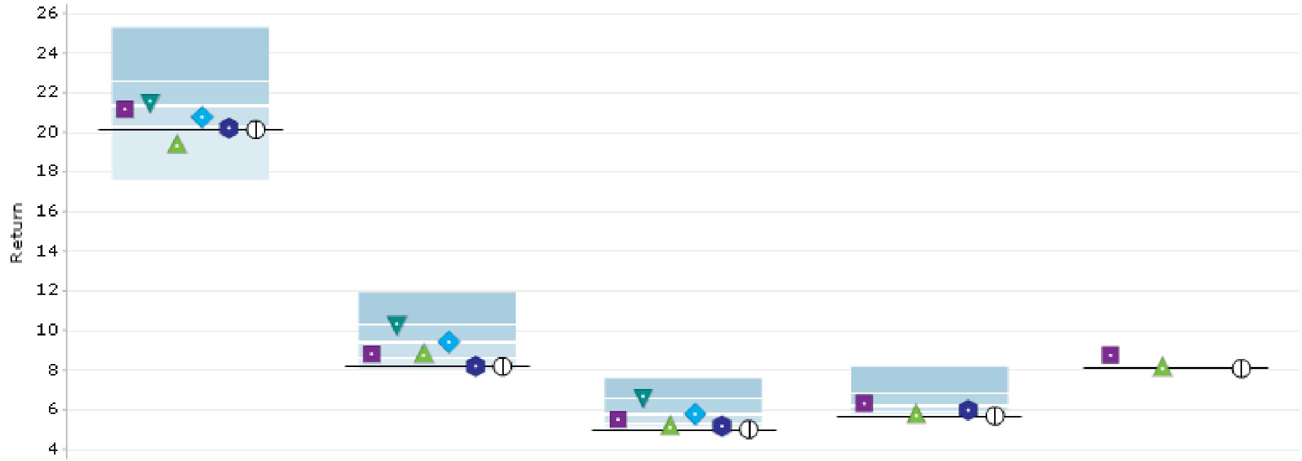
Active vs. Passive Management

Rated Managers in Long Duration Credit

- Of the 22 strategies in Mercer's Long Credit Universe, five are rated B+ or better.
- Manager A, B, and C are rated A. Manager D is rated B+. Manager E is not rated.
- All five managers shown in the quartile chart outperformed or approximated the benchmark over the trailing three- and five-year periods.

Return in $US (before fees) over 1 yr, 3 yrs, 5 yrs, 7 yrs, 10 yrs ending June-10

Comparison with the US Fixed Long Credit universe (percentile ranking).



	1 Year (%)	3 Years (%pa)	5 Years (%pa)	7 Years (%pa)	10 Years (%pa)
Manager A	21.2 *(57)*	8.8 *(58)*	5.5 *(67)*	6.3 *(33)*	8.8
Manager B	21.6 *(43)*	10.4 *(25)*	6.7 *(17)*	-	-
Manager C	19.3 *(86)*	8.8 *(67)*	5.1 *(100)*	5.7 *(100)*	8.1
Manager D	20.8 *(67)*	9.4 *(50)*	5.8 *(50)*	-	-
Manager E	20.2 *(76)*	8.2 *(92)*	5.2 *(83)*	6.0 *(67)*	-
BCUSLCR	20.1 *(81)*	8.2 *(92)*	5.0 *(100)*	5.7 *(100)*	8.1
5th Percentile	25.3	11.9	7.6	8.2	-
Upper Quartile	22.6	10.4	6.6	6.9	-
Median	21.4	9.4	5.8	6.2	8.8
Lower Quartile	20.3	8.6	5.4	5.9	-
95th Percentile	17.6	8.0	5.1	5.8	-
Number	22	13	7	4	3

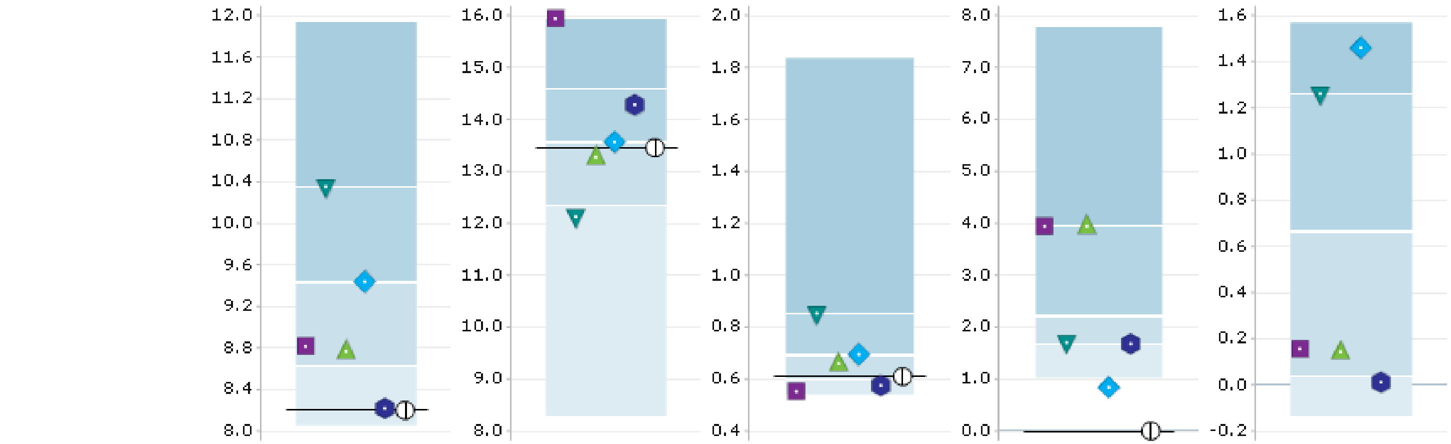
Active vs. Passive Management

Rated Managers in Long Duration Credit

- While each of the managers displays different risk/return characteristics, all five exhibit a reward to risk ratio that approximates or beats the benchmark.

Performance characteristics vs. Barclays Capital US Long Credit in $US (before fees) over 3 years ending June-10 (quarterly calculations).

Comparison with the US Fixed Long Credit universe (percentile ranking).



	Ret (%pa)	Std Dev (%pa)	Ret/SD	TE (%pa)	IR
Manager A	8.8 *(58)*	15.9 *(0)*	0.6 *(92)*	3.9 *(25)*	0.2 *(58)*
Manager B	10.4 *(25)*	12.1 *(83)*	0.9 *(17)*	1.7 *(67)*	1.3 *(25)*
Manager C	8.8 *(67)*	13.3 *(58)*	0.7 *(58)*	3.9 *(17)*	0.1 *(67)*
Manager D	9.4 *(50)*	13.6 *(50)*	0.7 *(50)*	0.8 *(100)*	1.5 *(17)*
Manager E	8.2 *(92)*	14.3 *(42)*	0.6 *(83)*	1.7 *(75)*	0.0 *(92)*
BCUSLCR	8.2 *(92)*	13.5 *(53)*	0.6 *(73)*	0.0 *(100)*	-
5th Percentile	11.9	15.9	1.8	7.8	1.6
Upper Quartile	10.4	14.6	0.9	3.9	1.3
Median	9.4	13.6	0.7	2.2	0.7
Lower Quartile	8.6	12.3	0.6	1.7	0.0
95th Percentile	8.0	8.3	0.5	1.0	-0.1
Number	13	13	13	13	13

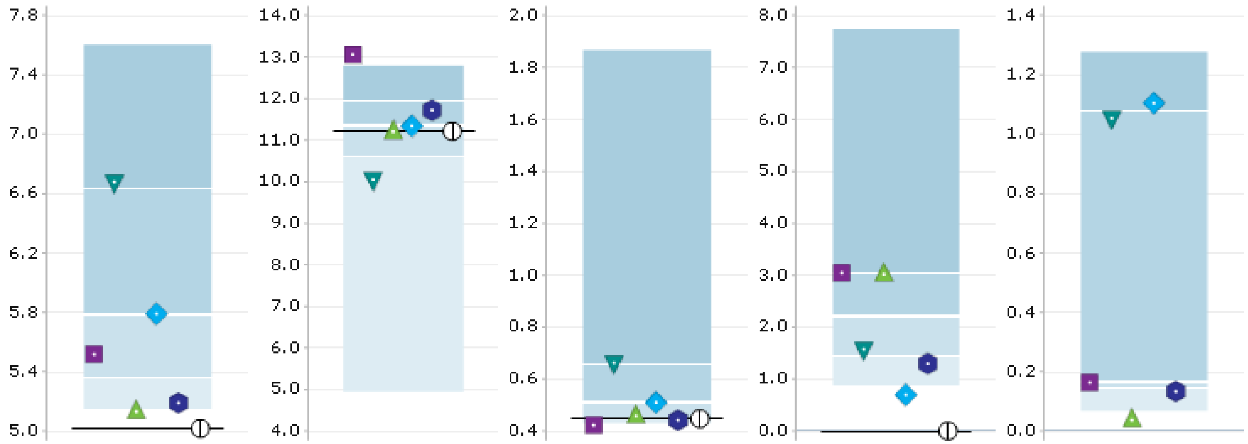
Active vs. Passive Management

Rated Managers in Long Duration Credit

- While each of the managers displays different risk/return characteristics, all five exhibit a reward to risk ratio that approximates or beats the benchmark.

Performance characteristics vs. Barclays Capital US Long Credit in $US (before fees) over 5 years ending June-10 (quarterly calculations).

Comparison with the US Fixed Long Credit universe (percentile ranking).



	Ret (%pa)	Std Dev (%pa)	Ret/SD	TE (%pa)	IR
Manager A	5.5 *(67)*	13.1 *(0)*	0.4 *(100)*	3.1 *(17)*	0.2 *(50)*
Manager B	6.7 *(17)*	10.1 *(83)*	0.7 *(17)*	1.6 *(67)*	1.1 *(33)*
Manager C	5.1 *(100)*	11.2 *(67)*	0.5 *(67)*	3.0 *(33)*	0.0 *(100)*
Manager D	5.8 *(50)*	11.3 *(50)*	0.5 *(50)*	0.7 *(100)*	1.1 *(17)*
Manager E	5.2 *(83)*	11.7 *(33)*	0.4 *(83)*	1.3 *(83)*	0.1 *(83)*
BCUSLCR	5.0 *(100)*	11.2 *(65)*	0.4 *(78)*	0.0 *(100)*	-
5th Percentile	7.6	12.8	1.9	7.7	1.3
Upper Quartile	6.6	11.9	0.7	3.0	1.1
Median	5.8	11.3	0.5	2.2	0.2
Lower Quartile	5.4	10.6	0.5	1.4	0.1
95th Percentile	5.1	5.0	0.4	0.9	0.1
Number	7	7	7	7	7

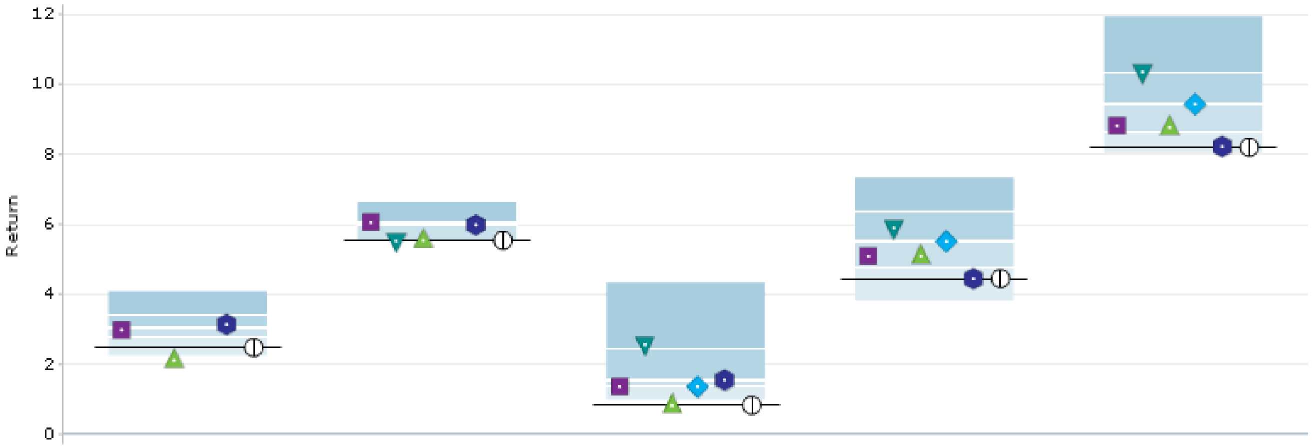
Active vs. Passive Management

Rated Managers in Long Duration Credit

- All of managers have approximated or outperformed the benchmark over nearly all three-year rolling periods since June 2006.

Return in $US (before fees) over 5 Annual Rolling Periods ending June-10

Comparison with the US Fixed Long Credit universe (percentile ranking).

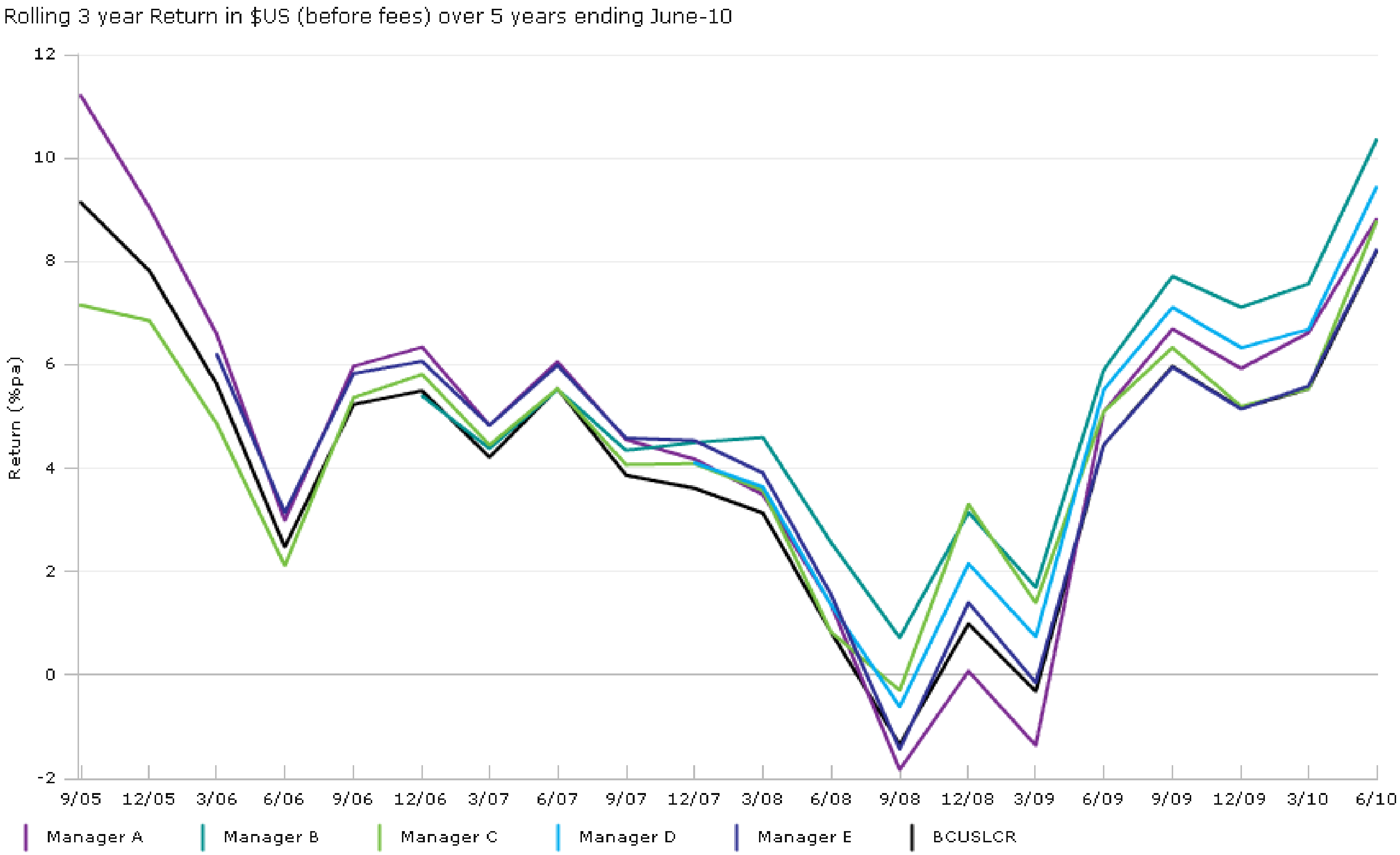


	3 Years to Jun 2006 (%pa)	3 Years to Jun 2007 (%pa)	3 Years to Jun 2008 (%pa)	3 Years to Jun 2009 (%pa)	3 Years to Jun 2010 (%pa)
Manager A	3.0 *(67)*	6.1 *(25)*	1.4 *(67)*	5.1 *(70)*	8.8 *(58)*
Manager B	-	5.5 *(100)*	2.6 *(17)*	5.9 *(30)*	10.4 *(25)*
Manager C	2.1 *(100)*	5.5 *(75)*	0.8 *(100)*	5.1 *(60)*	8.8 *(67)*
Manager D	-	-	1.4 *(83)*	5.5 *(50)*	9.4 *(50)*
Manager E	3.1 *(33)*	6.0 *(50)*	1.6 *(50)*	4.5 *(80)*	8.2 *(92)*
BCUSLCR	2.5 *(86)*	5.5 *(75)*	0.8 *(100)*	4.5 *(80)*	8.2 *(92)*
5th Percentile	4.1	6.6	4.3	7.3	11.9
Upper Quartile	3.4	6.1	2.4	6.4	10.4
Median	3.1	6.0	1.6	5.5	9.4
Lower Quartile	2.8	5.5	1.4	4.8	8.6
95th Percentile	2.3	5.5	1.0	3.8	8.0
Number	4	5	7	11	13

Active vs. Passive Management

Rated Managers in Long Duration Credit

- All of the managers have consistently outperformed the benchmark over three-year rolling periods since September 2005.



Active vs. Passive Management
Rated Managers in Long Duration Credit

Returns Consistency Analysis

US Fixed Long Credit Quarterly Returns - before fees

Quarterly returns from Sep 2005 to Jun 2010

Manager	Number of Obs	First Quartile Number	First Quartile %	Second Quartile Number	Second Quartile %	Third Quartile Number	Third Quartile %	Fourth Quartile Number	Fourth Quartile %	Avg Percentile Ranking	> Benchmark Number	> Benchmark %
Manager A	20	5	25%	5	25%	1	5%	9	45%	56	10	50%
Manager B	20	9	45%	5	25%	5	25%	1	5%	37	15	75%
Manager C	20	3	15%	4	20%	3	15%	10	50%	65	8	40%
Manager D	20	1	5%	11	55%	7	35%	1	5%	51	16	80%
Manager E	20	3	15%	8	40%	7	35%	2	10%	49	13	65%

Benchmark:

BCUSLCR	20	1	5%	3	15%	12	60%	4	20%	61

MERCER

MARSH MERCER KROLL
GUY CARPENTER OLIVER WYMAN

12-month Investment Committee Calendar

Date	December	Notes
12/15/2010	1. Custodial Fiscal Year 2010 annual review (in CIO Report) 2. IPS Revisions Summary review 3. Mercer SIF portfolio sensitivity analysis 4. Mercer education session, Long Credit active management, second review	
Date	**January**	
1/20/2011	1. MWBE MoM RFP issuance approval, vote 2. Long Credit active management IPS revision, first review	
Date	**February**	
2/23/2011	1. Investment Consultant Performance Report 4Q10 2. Long Credit active management IPS revision, second review, possible vote	
Date	**March**	
3/24/2011	1. Investment consultant RFP Finalist recommendation, vote 2. Real Estate class IPS revision, first review	
Date	**April**	
4/28/2011	1. Active Long Credit manager RFP issuance approval, vote 2. Real Estate class IPS revision, second review, possible vote 3. Cash Overlay strategy education, first review	
Date	**May**	
5/26/2011	1. Investment Consultant Performance Report 1Q11 2. Cash Overlay strategy education, second review, possible vote 3. Investment Consultant research, Real Estate asset class	

12-month Investment Committee Calendar

Date	June	Notes
6/15/2011	1. Real estate manager RFP issuance approval, vote 2. Cash Overlay strategy IPS change, first review, possible vote 3. Investment Consultant education session, US Small/Mid Cap Equity active management, first review	
Date	**July**	
7/28/2011	1. MWBE MoM RFP Finalist(s) recommendation, possible vote 2. Cash Overlay strategy manager RFP issuance approval, vote 3. Annual Review Summary, FY 2011 IPS changes 4. Investment Consultant education session, US Small/Mid Cap Equity active management, second review	
Date	**August**	
8/25/2011	1. Investment Consultant Performance Report 2Q11 2. BWC Investment Division Goals Fiscal Year 2012 3. MWBE MoM RFP Finalist(s) recommendation, possible vote 4. US Small/Mid Cap Equity active management IPS revision, first review 5. Investment Consultant education session, Non-US Equity active management, first review	
Date	**September**	
9/29/2011	1. US Small/Mid Cap Equity active management IPS revision, second review, possible vote 2. Investment Consultant education session, Non-US Equity active management, second review, possible vote 3. Brokerage Activity Fiscal Year 2011 summary report	
Date	**October**	
10/27/2011	1. Investment class performance/value annual report [ORC4121.12(F)(12)] 2. Annual Review Committee Charter (1st read) 3. Non-US Equity active management IPS revision, first review 4. Long Credit active manager RFP Finalist(s) recommendations, possible vote 5. US Small/Mid Cap Equity active manager RFP issuance approval, first review 6. Investment Consultant education session, US Aggregate Fixed Income active management, first review	
Date	**November**	
11/17/2011	1. Investment Consultant Performance Report 3Q11 2. Annual Review Committee Charter (2nd read), possible vote 3. Long Credit active manager RFP Finalist(s) recommendations, possible vote 4. Non-U.S. Equity active management IPS revision, second review, possible vote 5. Investment Consultant education session, US Aggregate Fixed Income active management, second review	

BWC Invested Assets
Estimated and Unaudited
As of December 14, 2010

Dec2010 MTD MV Decrease Bonds…………. - $ 470 million (-3.5% return)
Dec2010 MTD MV Increase Equities………… + $ 348 million (+5.7% return)

Dec2010 MTD MV Decrease Bonds+Equities.... - $ 122 million
(-0.7% Dec10 MTD portfolio return including Cash)

BWC Asset Allocation MV 12/14/10

Bonds*…………	$13,340 million	66.9%
Equities*……….	6,467 million	32.5%
Cash……………	124 million	0.6%
TOTAL………...	$19,931 million	100.0%

* includes nominal cash held by outside managers

Portfolio Return Calendar 2008……… -2.3% (-$444 million net inv. income)
Portfolio Return Fiscal Year 2009…… -1.1% (-$195 million net inv. income)
Portfolio Return Calendar 2009………+8.6% (+$1,505 million net inv. income)
Portfolio Return Fiscal Year 2010…..+12.0% (+$2,050 million net inv. income)

Fiscal Year 2011 YTD

Portfolio Return July10-Nov10 …….. + 6.4% (+$1,236 million net inv. income)

Prepared by: Bruce Dunn, CFA
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