BWC Board of Directors

Investment Committee

Wednesday, December 15, 2010
Level 2, Room 3 (Mezzanine)
30 West Spring St.
Columbus, OH 43215

Members Present: Robert Smith, Chair
Alison Falls, Vice Chair
David Caldwell
Kenneth Haffey
Larry Price
William Lhota, *ex officio* (arrived at 11:00 a.m.)

Members Absent: None

Other Directors Present: Charles Bryan, James Harris, James Hummel, James Matesich, and Thomas Pitts

Counsel Present: John Williams, Assistant Attorney General
Janyce Katz, Assistant Attorney General
James Barnes, BWC General Counsel and Chief Ethics Officer

Consultants Present: Guy Cooper, Partner, Mercer Consulting
Jordan Nault, Principal, Mercer Consulting

Staff Present: Marsha Ryan, Administrator
Donald Berno, Liaison to Board of Directors
Bruce Dunn, Chief Investment Officer
Lee Damsel, Director of Investments

Scribe: Michael J. Sourek, Staff Counsel

CALL TO ORDER
Mr. Smith called the meeting to order at 10:43 AM, and the roll call was taken. All members, except Mr. Lhota, were present.

MINUTES OF OCTOBER 21, 2010 MEETING
Mr. Smith asked for any changes to the minutes of November 18, 2010 meeting. With no further changes, Mr. Haffey moved to have the minutes of November 18, 2010 be approved, and Ms. Falls seconded the motion. The motion passed with a 5-0 roll call vote.

REVIEW AND APPROVAL OF AGENDA
Mr. Smith noted the agenda's topic of sensitivity analysis and long credit active versus passive management was fortuitous in light of recent changes in the equity and bond

markets. With no changes to the agenda, Ms. Falls moved to have the agenda approved, and the motion was seconded by Mr. Price. The motion passed with a 5-0 roll call vote.

DISCUSSION ITEMS

1. **Monthly and Fiscal Year to Date Portfolio Value Comparisons**

Mr. Dunn presented the Monthly and Fiscal Year to Date Portfolio Value Comparisons Chart, dated December 15, 2010. The report is incorporated into the minutes by reference and was provided to the Investment Committee at to the meeting.

Mr. Dunn reported November 2010 was the first month since May 2010 with an overall negative return for the investment portfolio, with a return of -1.1% for the month. Calendar year to date, May was the only other negative return month for the investment portfolio. The investment portfolio's overall performance demonstrated very good returns and balance between bonds and equities for calendar year 2010 to date. Investment income decreased by $220 million for the month of November 2010, and the negative return was comparable for bonds and equities: bonds in the portfolio were down 1.2%, and stocks were down overall 0.9%. For the bond portfolio, the negative returns were narrow, ranging from TIPS returning -1.7% to the U.S. Aggregate fixed income portfolio returning -0.6%. While equities returned a -0.9%, domestic equities in the portfolio returned a positive 0.6% return for the month, but international equities returned -3.9%. The relationship between domestic equities and international equities was similar to the relationship between small and large cap U.S. equities. Domestic small cap equities have been outperforming their international and U.S. large cap equity counterparts, respectively. To further illustrate, the small cap equity Russell 2000 index was up 3.5% for the month, but the Russell 1000 larger cap index was only up 0.3%.

Mr. Dunn noted the 3.9% decrease in international equities showed emerging markets outperforming developed markets, which has been an ongoing trend. Local currency has had an important impact in the month's results. The US dollar had been trailing the Euro and Japanese Yen, but the trend reversed in November. A total of 3.1% of the 3.9% decline in international equities in November was due to currency foreign exchange changes, and the remaining 0.8% of the decline was due to local market conditions. The US dollar strengthened in the month due to the Irish sovereign debt situation, which resulted in a flight to the US dollar. Further, the federal government has been implementing a quantitative easing policy to strengthen the US economy and stabilize the US dollar's value with other currencies.

Fiscal year to date, Mr. Dunn reported the investment portfolio had generated investment income over the first five months ended November of $1.236 billion, for a positive net return of 6.4%. Equity markets were clearly the driver of this return, with a positive net return of 16.8% as opposed to bonds returning only a positive 2.8% over this period. The best performing bond portfolio sector was the long credit portfolio, returning a positive 3.4%, but all bond investment classes in the portfolio had positive returns; however, the situation may be changing. Domestic and international equities had comparable returns, being within 1% of each other. The Russell 2000 index outperformed the Russell 1000 index by 3.6%, and emerging market equities outperformed developed markets by 3.4%, again supporting the ongoing themes of small cap equities outperforming large cap equities, and, internationally, emerging market equities outperforming developed market equities. Mr. Smith inquired if long credit was outperforming short credit, and Mr. Dunn replied in the affirmative.

2. **Month-End Portfolio Asset Allocation Values**

Ms. Damsel presented the Investment Asset Allocation – Combining Schedule as of November 30, 2010, dated December 14, 2010 and the Investment Asset Allocation – Combining Schedule as of October 31, 2010, dated November 17, 2010. The reports are incorporated by reference into the minutes and were provided to the Committee at the meeting.

Ms. Damsel indicated the importance of analyzing asset allocations in the portfolio when the portfolio overall declines in value. The State Insurance Fund (SIF) portfolio has a target allocation of 70% bonds and 30% equities. All returns for indices were down in November except the Russell 3000 index. For the end of November, equity and bond asset allocations for all funds were nearly on target. While individual mandates for long credit and the Russell 3000 were up for November, bond market movements in December have resulted in long credit asset allocation moving lower in its asset allocation range. Mr. Smith inquired about the target band. Ms. Damsel replied the investment portfolio is rebalanced quarterly, if necessary, and the specific bands for each investment are in the Investment Policy Statement ("IPS").For long credit, the band is 24-32%, with each band being approximately +/-3-4% of the policy target asset allocation.

Mr. Dunn then referred the Committee to a report handed out in advance of the meeting on BWC Invested Assets as of December 14, 2010. This report is incorporated into the minutes by reference. Mr. Dunn reported in December a significant shift in the performance of bonds and equities. Interest rates shot up significantly in December to date leading to a decrease in market value of $470 million in the bond portfolio, or -3.5% return, which included bond income and price. Offsetting the negative return of bonds thus far in December was a positive $348 million, or 5.7% return, in market value increase in the equity portfolio. Since bonds consist of a little more than 2/3 of the investment portfolio, and equities a little less than 1/3, the portfolio in December to date is showing an overall reduction of $122 million in market value, or -0.7% return. Times like these demonstrate that a good balance between bonds and equities in the portfolio are important.

Mr. Dunn noted positive economic indicators regarding growth. Consumer sentiment is improving, and interest rates are rising for the right reason, namely economic growth. Further, President Obama agreeing to maintain the tax cuts of the Bush Administration, and reducing the payroll tax by 2%, should strengthen the economy in 2011. The rise in interest rates has been significant, rising with the ten-year Treasury yield increasing from 2.5% in early October to 3.5% recently. Mr. Smith noted a 100 basis point ("bp") increase is a shift that is seen usually over a much longer period. Mr. Dunn noted 30 year Treasuries have seen an 80 bp increase, from 3.70% to 4.50% over the same period. Mr. Smith asked if these rates were annual rates, and Mr. Dunn replied in the affirmative. Mr. Cooper agreed the interest rate increase is significant for a short period of time. Mr. Smith added that examples in the sensitivity analysis had examples of 50 bp and 100 bp increases, and there has been a 100 bp shift in two months. Mr. Dunn commented, for the portfolio, long term government bond assets comprise 7.5% of the total portfolio, and those assets are down 6.4% in December to date, with 10-year Treasuries up 60 bp, and 30 year Treasuries up 40 bp in yield during December to date. The long credit portfolio is down 3.7% for the month, and this performance difference between long term government and long duration credit holdings is significant. Finally, shorter duration bond holdings in the portfolio demonstrate the defensiveness in the portfolio when interest rates significantly rise. Short duration bond holdings were down only 0.6% in total return as opposed to 6.4% for long term government bonds.

With respect to benchmark indices, Mr. Dunn reported spreads between corporate and government bonds continue to narrow, as well as with mortgage backed and asset backed securities. The VIX index, a measure of volatility, is currently very low. High yield bonds have been outperforming investment grade bonds. Overall, there has been a demonstration of strength in the financial markets. Equities currently represent 32.5% of the investment portfolio as of yesterday, with a target of 30%. Bonds currently represent 66.9% of the portfolio as of December 14, with a target of 69%. The Bureau is monitoring asset allocation very closely, and the CIO Report next month will report on portfolio redemptions necessary to fund operations in December.

3. CIO Report – November 2010

Mr. Dunn presented the CIO Report for November 2010. A copy of the report is incorporated by reference into the minutes and was provided to the Investment Committee prior to the meeting.

Mr. Dunn focused his presentation on the latter portion of the report. An RFP for a Full Service Investment Consultant was issued by the Bureau as scheduled on November 16, 2010. The RFP is accessible from the Ohio Department of Administrative Services procurement website, and a link to this website is available from the Bureau website. The RFP was also advertised in the November 15, 2010 and November 29, 2010 publications of *Pensions and Investments.* The deadline for respondent submissions to the RFP is January 20, 2011, which provides sufficient time for respondents to give full responses in consideration of the holidays. Finalists will be recommended for consideration by the Investment Committee and Board of Directors at their respective March 2011 meetings. The expectation is that the investment consultant selected will be under contract by mid-April, 2011.

Second, Mr. Dunn provided an update on the Mercer contract. 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, which was three months earlier than the contract’s stated termination date of June 30, 2011. Both investment staff and the Board of Directors desired to have Mercer complete the first quarter 2011 BWC Investment Performance Report for the three month period ending March 31, 2011. Mercer has agreed to provide this report to the Bureau in return for a one-time fee of $30,000. Administrator Ryan and Bureau staff has agreed to this one-time performance reporting fee payment to Mercer. Bureau Legal staff amended the existing Mercer contract to reflect the obligation of Mercer to prepare and deliver the report to the Bureau in return for this one-time payment, and Mr. Cooper signed the amended contract on behalf of Mercer just prior to this meeting. Mr. Dunn noted the desire to have uninterrupted services of performance reports from the Bureau’s investment consultant, and the contract does not require a verbal presentation of the report by Mercer at the May, 2011

Investment Committee or Board of Directors meetings. Mr. Dunn indicated he would most likely present that performance report. The $30,000 fee was reasonable in his opinion because Mercer has approximately a $40,000 monthly retainer for their services; the one-time fee reflected a little less than 25% of their retainer fee for one quarter.

Finally, Mr. Dunn provided an Annual Custodial Services Review for Fiscal Year 2010. The Treasurer of State ("Treasurer") is the custodian of the Bureau funds, and JP Morgan Chase Bank ("JP Morgan") is the sub-custodian to the Treasurer. JP Morgan was renewed as custodian in late Fiscal Year 2010 at a reduced fee schedule, where investment assets under management fees and trading fees were each lowered. However, because of higher trading activity in Fiscal Year 2010 versus Fiscal Year 2009, and the new fee schedule was not implemented until late in the fiscal year, the fees paid to JP Morgan were a little over $1 million in Fiscal Year 2010 as opposed to approximately $600,000 in Fiscal Year 2009. Trading was higher in Fiscal Year 2010 and the Bureau held nearly 10,000 issues in the investment portfolio at the end of Fiscal Year 2010. Additionally, Black Rock and State Street were brought on as transition managers of the investment portfolio, and 46% of all transactions related to transition activity. JP Morgan was extensively involved in processing and settling all trades. Some of the trades, out of any control by JP Morgan, did not settle timely; many mortgaged backed securities, which consist of 40% of the aggregate portfolio, did not settle in time due to Freddie Mac and Fannie Mae issues regarding mortgage market dislocation in delivering mortgage pools. In Fiscal Year 2010, 90.7% of all transactions were settled as scheduled, compared with 97.5% in Fiscal Year 2009. Mr. Dunn emphasized the Bureau was not economically disadvantaged by this lower figure; if a sale failed to settle timely, JP Morgan did provide the Bureau the funds on the settlement date.

Mr. Smith inquired if this information was provided to the Treasurer, and Mr. Dunn replied in the affirmative, adding that JP Morgan was rated as satisfactory by the Bureau. Mr. Haffey inquired if the $1 million fee to JP Morgan in Fiscal Year 2010 was reasonable. Mr. Dunn replied in the affirmative; the asset value fee and per transaction fees were reduced by over one-third during the fiscal year. The increase in fees was strictly transaction driven. Mr. Smith inquired if the reliability of JP Morgan was strong, and Mr. Dunn replied there were some issues but overall the company was performing satisfactory. Mr. Smith inquired if the Treasurer's office was aware of the issues. Mr. Dunn replied there were quarterly meetings, with minutes taken, and the issues are reflected in the minutes. Ms. Damsel added the Treasurer's Office representatives attend the quarterly meetings, and the Treasurer's Office was aware of the issues. Mr. Smith asked if there was some slippage in spots without getting into detail. Mr. Dunn added the Bureau demanded a lot from JP Morgan.

4. BWC Investment Policy Statement

Mr. Dunn presented a report summary of the revisions to the BWC Investment Policy Statement ("IPS") from Fiscal Year 2009 to date. A copy of a memorandum on this topic is incorporated by reference into the minutes and was provided to the Investment Committee prior to the meeting.

Mr. Dunn noted Fiscal Year 2009 began on July 1, 2008. A similar report submitted to the Board had been completed in August 2008 for changes in Fiscal Year 2008. In April 2009 there were numerous changes to the IPS regarding asset allocation and benchmarks for the State Insurance Fund. In May 2009, significant changes in the IPS were made regarding benchmarks and asset allocations for long term bonds. The weighting attributed to long term credit bonds was set to be at 28%, and the weighting for long term government bonds were cut by 9%. This action proved to be a winning move as long credit issues have clearly outperformed long government issues since then. In December 2009, IPS revisions began to address the specialty funds. In that month, the Coal Workers' Pneumoconiosis Fund provisions of the IPS were approved followed in January 2010 with a vote on the IPS provisions for the Disabled Workers' Relief Fund. Mercer did provide asset liability studies on both funds. Also in September 2010, the Board of Directors approved investments involving Minority-Owned and/or Women-Owned Business Enterprises ("MWBE") through a Manager of Managers ("MoM") model. One percent of the assets of the State Insurance Fund are targeted to be managed under MWBE, and next month, the Bureau will be asking for approval to issue a request for proposal ("RFP") to search for an MWBE MoM.

Mr. Haffey appreciated Mr. Dunn's report, which provided a clear picture of what the Board of Directors have done with the IPS. Ms. Falls concurred, recalling that the IPS three and one half years ago was 1.5 inches thick, involving strategy and tactical issues. She believed the IPS had been really honed in as a true policy document, and the Board of Directors can handle a 20 page IPS. Mr. Dunn commented that since April 2009, the IPS has significantly reduced in size; previous versions of the IPS made mention of numerous unnecessary references to the Ohio Revised Code.

5. **Mercer Portfolio Sensitivity Analysis Presentation**

Mr. Cooper and Ms. Nault presented a report on sensitivity analysis of the State Insurance Fund. A copy of a PowerPoint presentation is incorporated by reference into the minutes and was provided to the Investment Committee prior to the meeting. Mr. Smith introduced the topic as timely and important because of recent movements in the bond markets.

Mr. Cooper began by noting sensitivity analysis looks at what happens to the invested assets of the State Insurance Fund ("SIF") under various scenarios. The SIF's market value and asset allocation as of October 31, 2010 was used as a starting point; on that date, the SIF portfolio had a total market value of $18.7 billion. Mr. Smith asked for embellishment of when interest rates change how the assets of the SIF will be affected. Mr. Cooper replied when interest rates change, an asset will either increase or decrease in value; additionally, the SIF's liabilities will also change, but this factor was too complicated to examine, and for purposes of the presentation, the impact on liabilities was being ignored. The change in SIF liabilities involves changing the discount rate, and Mr. Cooper asked the Investment Committee to keep in mind this factor was not considered, but it is an important factor.

Mr. Cooper noted there were twenty-five scenarios considered. Increases in interest rates from 0 to 200 bps in 50 bps increments were considered, along with equity total returns from -20% to +20% in 10% increments. A bp is equivalent to $1/100^{th}$ of 1%; for example, if an interest rate changes from 9% to 9.01% that is a 1 bp change. 100 bps equals 1% change in interest rates, and 200 bps equals 2%. The analysis is important because, as interest rates rise, bond prices fall, and vice versa. In the example situations, a 100 bps change in interest rates implies the entire yield curve shifts in parallel by 100 bps. In reality, this type of shift does not happen very often, but the study cannot examine every possibility. The 0% equity return example is actually defined as "income" because the SIF portfolio would still receive dividends and distributions from these holdings even though there was no equity return in price. Presently the SIF portfolio receives a yield of 1.8% from its domestic equities and 2.8% for international equities. Mr. Cooper said sensitivity analysis with regard to bond holdings involved examination of the duration of its assets. Duration is a multiplier that gives the sensitivity of bonds to changes in interest rates. A long term bond may have a duration of 13.7, which may indicate a bond will decrease in value by 13.7% if interest rates increase by 1%. Duration is not exactly correlated to interest rates, but the figure is a good estimate. Bond prices typically decrease when interest rates increase, but bonds still pay a yield to offset a decrease in prices. The U.S. Aggregate SIF bond holdings are ballast to the long term bonds. Long term bonds typically have higher durations than short term bonds, which mean their prices will move more as interest rates change. For this study, long term government bonds have an average duration of 13.7, but U.S. Aggregate bonds have an average duration of only 4.8.

Mr. Bryan inquired with the 0 bps example if relevant value mattered; for example interest rates are embedded in the price of some assets. Mr. Cooper indicated yields as of October 31, 2010, the fixed start date of the analysis, were embedded in the results; for example, long term government yields were at about 3.8%. Mr. Bryan gave the example of interest rates for long term government bonds going from 3.8% to 4.8% in one year. The price of the long term government bonds would expect to fall 13.7%. However, the bonds would still yield 3.8% for the year, leaving a net loss of 9.9%. Mr. Bryan asked if that example was correct, and Mr. Cooper responded in the affirmative. Mr. Pitts inquired if the shift was 200 bps, and not 100 bps, would the duration also be multiplied by 2. Mr. Cooper said the textbook calculation was much more complicated than Mr. Pitts' statement, but in a simplified answer, the answer would be in the affirmative.

Mr. Cooper then provided the sensitivity analysis when interest rates increase by 0 bps, 50 bps, 100 bps, and 200 bps. Best, medium and worst case scenarios, corresponding to the equity market performance of -20%, -10%, Income, 10%, and 20% were then identified. All best case returns for each basis point increase were when equities were up 20%. All medium returns for each basis point increase were when equities were only income returns. All worst case returns were when equities were down 20%. A table of his presentation follows. All entries are portfolio value in billions of dollars, with a corresponding rate of return in parentheses:

IR Increase	**Best Case (+20% Equities)**	**Medium Case (Dividends Only)**	**Worst Case (-20% Equities)**
0 bps	$20.3 (8.7%)	$19.3 (3.3%)	$18.1 (-3.3%)
50 bps	$19.7 (5.4%)	$18.7 (0.1%)	$17.4 (-6.6%)
100 bps	$19.1 (2.4%)	$18.2 (-2.9%)	$16.9 (-9.6%)
150 bps	$18.6 (-0.3%)	$17.6 (-5.7%)	$16.4 (-12.3%)
200 bps	$18.2 (-2.9%)	$17.2 (-8.3%)	$15.9 (-14.9%)

For the 0 bps example, Mr. Cooper noted interest rates do not change. Bond prices do not change, but the investment portfolio still earns the yield on each bond owned. Mr. Bryan inquired how defaults on bonds impacted the results; as interest rates rise, defaults should also increase. Mr. Cooper noted the bonds are already owned by the investment portfolio, and the yields are fixed. The default issue would be on new bonds issued that are not considered in the analysis. Mr. Smith said the sensitivity analysis involves considering only changes in interest rate and corresponding equity returns; everything else must be considered equal. Ms. Falls also stated that credit spreads are assumed not to change, when in reality they would. Mr. Smith noted the best case for the 0 bps analysis has a 20% equity return.

For the 50 bps increase examples, Mr. Cooper noted the best case scenario showed bonds losing value in the SIF, but the equity returns more than made up the loss. The medium case scenario had the investment portfolio still having bonds down, but equities and bonds would provide enough investment income to provide a slightly positive overall return. In the worst case scenario, both bonds and stocks lost money. Mr. Smith noted the 50 bps increase scenario has already occurred since October 31, 2010.

For the 100 bps increase analysis, Mr. Cooper noted only the best case scenario had a positive return for the SIF. All other examples lost money for the SIF. For the 150 bps and 200 bps examples, the situation just worsens and all scenarios lose money for the SIF. Mr. Bryan noted no one wants to predict horrible scenarios, but it would not be far-fetched to consider higher bps increases in interest rates. Between 1975 and 1982, there were really big increases in interest rates. Mr. Smith added that increase in interest rates was 1000 bps. Mr. Bryan inquired if such a situation was outlandish. Mr. Cooper replied, since 1981, a 200 bp increase in interest rates was not unusual over a multiyear period. For 12 months, a 200 bps increase is the outerbound, but a 350 bps could occur in the next two years. Mr. Smith encouraged a discussion where interest rates are going in the next five to seven years. He indicated the stars have been lined up well for the SIF portfolio the last couple of years, but as the analysis indicates, the trend could easily go the other way. The interest rate analysis was also an important perspective from the SIF's long term liabilities. Mr. Bryan agreed the impact on what discount rate to use for liabilities is an important issue; merely using a larger discount rate will make the liabilities side of the balance sheet look better. Mr. Pitts inquired if a rise in interest rates would lead to a higher yield of bonds in the SIF. Mr. Smith noted an increase in yield only applies to new issues, and Ms. Falls indicated the short answer to the question was in the negative. Currently inflation is only at 2%, the real return on bonds is 2-3% per year, and 10 year Treasury bonds are yielding 3.5%. The current market actions are simply a return to normalcy. Mr. Cooper provided an example of a 30 year Treasury bond yielding 3.8%, but interest rates are at 5.8%. The 3.8% Treasury bond would go down in value. On the other side of the coin, if a bond yields 7%, not as much is needed to fund liabilities because the yield exceeds inflation.

Mr. Matesich inquired, by assuming the parallel shift in the yield curve in this analysis, created an analysis of worst case scenarios. Mr. Cooper replied in the negative. The analysis by using a parallel shift in the yield curve is a typical case, not a worst case. Mr. Matesich asked if there was a strategy that Mr. Cooper was leading the Board of Directors to consider from this presentation. Mr. Cooper replied in the negative. Mr. Matesich asked if the presentation was for the Board of Directors' statistical and informational purposes, and Mr. Cooper replied in the affirmative. Mr. Smith commented the Bureau's strategy in managing the SIF portfolio is heavily influenced by the SIF's long term liabilities. Ms. Nault noted the sensitivity analysis provided a set of expectations, but these were good questions.

6. **Mercer Presentation on Long Credit Active v. Passive Management, second discussion**

Mr. Cooper and Ms. Nault presented the second discussion on Long Credit Active v. Passive Management. A copy of a PowerPoint presentation is incorporated by reference into the minutes and was provided to the Investment Committee prior to the meeting. Mr. Smith introduced the topic as work that was started in September, 2010. Next month, the Bureau was transferring to a mandate. Mr. Dunn confirmed that a first reading of a proposed IPS revision, dependent on what was decided from this presentation, was expected in January, 2011 with a second reading in February, 2011.

Ms. Nault noted three primary proposed active long credit objectives. The first objective is to provide a hedge against the Bureau's liabilities. The second objective is to provide an enhanced risk/return profile relative to the benchmark index, identified to be Barclay's Capital Long Credit Index. This objective includes providing downside market protection, outperforming the benchmark index by 25 bps over the trailing three-year period net-of-fees, and outperforming peer group median over the trailing three-year period net-of-fees. Finally, the third objective is to select and maintain complementary active managers. This objective should include hiring multiple managers who earn money in different ways. Mr. Haffey inquired to the optimal number of managers, and the size of the funds to be managed. Mr. Dunn replied it is the intention for two to three managers to be selected. Ms. Falls asked if net-of-fees was a risk adjusted basis, and Ms. Nault replied in the negative. Ms. Falls believed risk adjusted returns should be discussed. Volatility is a very important concept that needed to be considered, and long credit represents a targeted 28% of the investment portfolio. She believed defining the objectives clearly were very important as the objectives will ultimately drive policy, and the level of risk preference is always up for debate. Ms. Nault noted the 25 bps objective was very modest; she had seen higher demands with clients with more of a penchant for swings in market value.

Ms. Nault then proceeded to discuss survey results of four highly rated long credit investment managers. The identities were masked by letters A, B, C, and D. The survey asked for information on portfolio turnover, excess returns, portfolio returns, and fee proposals. There were a variety of responses with regard to portfolio turnover, from 23% for Manager C, which was very low, to 170% for Manager D. In terms of Annual Excess Return Target (Net-of-Fees), the responses were between 0.34% and 0.43%. Ms. Falls indicated a 100% turnover rate is equivalent to trading the entire portfolio, and a turnover of 200% is more in line with an equity portfolio. Mr. Smith indicated he had seen 150% turnover in mutual funds, and Mr. Cooper agreed Ms. Falls made an important point. Ms. Nault then reviewed the managers with respect to their peers and the Barclays Capital Long Credit Index (BCI). In 2007, the BCI was up 3.8%, and all managers outperformed the BCI, with returns of 3.9% net-of-fees or higher. In 2008, the BCI was down 3.9%. Managers B, C, and D all outperformed net-of-fees, but Manager A was down 7.4% that year. In 2009, the BCI was up 16.8%. Manager A well outperformed Managers B, C, and D, with a return net-of-fees of 23.5%. Managers B, C, and D had mixed net-of-fee returns compared to the BCI. Mr. Smith appreciated Ms. Nault also provided the quartiles of performance for the peer groups, which was also an important consideration.

Ms. Nault reviewed performance attributions provided in the survey for Managers A, B and D. In 2007, Manager A, who outperformed the BCI that year, indicated overweighting allocations to the utilities and industrial sectors contributed to relative performance, but an overweight allocation to the financial sector and an underweight allocation to non-corporate credit detracted from relative performance. In 2008, Manager A, who underperformed that year, noted overweighting allocations to industrials sector and senior debt versus subordinated debt of financial institutions contributed to relative outperformance, but an overweight allocation to BBB-rated issues led to an overall relative underperformance. In 2009, Manager A, who outperformed that year, reported the same overweighting to BBB-rated issues that hurt its performance in 2008 contributed to relative outperformance in 2009. Mr. Cooper noted Manager A beat the market in 2009 by 700 bps, but fell well short of the market in 2008, and this factor needed to be considered in manager selection. Mr. Smith noted it was a lesson in tolerance. In 2007, Ms. Nault noted Manager B, who outperformed that year, reported security selection in corporate bonds, overweight allocations to the telecom and healthcare sectors, and underweighting allocation to the banking industry as contributing to relative outperformance, but an overweight allocation to structured product detracted from relative performance. In 2008, Manager B, who underperformed that year, reported overweighting allocations to the healthcare and capital goods sectors contributing to relative outperformance, but overweighting allocations to the airline industry, building materials industry, insurance industry, Lehman Brothers, and JP Morgan as detracting from relative performance. In 2009, Manager B, who underperformed that year, reported an overweight allocation to the financial sector as contributing to relative outperformance, but an overweight allocation to the healthcare sector detracted from relative performance. Manager D's report was broad and general. In 2007 and 2008, Manager D, who outperformed those years, indicated yield curve and sector positioning, as well as security selection, contributed to relative outperformance. In 2009, Manager D, who barely outperformed that year, indicated security selection contributed to relative outperformance, but yield curve and sector positioning detracted from relative performance.

Mr. Price appreciated the education of the presentation on looking at the manager's performance swings, and he inquired why the analysis was important. Ms. Nault noted this question was a good one because it goes to how the Board of Directors will be defining objectives, particularly how much alpha risk the Board of Directors was willing to undertake. Mr. Price indicated, at the end of the day, the question is whether the manager made more money than passive management. Mr. Smith noted all the investment managers being discussed outperformed year to year, but the swings in performance need to be analyzed; the biggest mistake the Board of Directors can do is fire a manager just before he begins outperforming again. Mr. Smith emphasized the importance of the end result, but the year to year percentage returns are important as well.

Mr. Lhota inquired how often an active manager should appear before an Investment Committee or Board of Directors in terms of best practices. Mr. Cooper indicated the active manager should appear at least annually; however, some organizations delegate to staff to meet with the active manager four times a year. There was a balance between the amount of reporting the Investment Committee or Board of Directors desires and the amount of time commitment the Board of Directors wants to make for the reporting. Mr. Lhota indicated the Board of Directors will need to think about this point. Mr. Cooper indicated most funds comparable to the SIF portfolio have 35 managers. Ms. Nault added some funds do not follow up with their managers until something goes wrong. Ms. Falls asked if that was a good practice, and Ms. Nault replied in the negative. Mr. Smith agreed the Board of Directors needed to discuss the pros and cons of having a large time commitment to active managers. Whether the manager is outperforming or underperforming, the managers are making decisions that should be reported to the Board of Directors. Mr. Cooper said the question is how comfortable would the Board of Directors be if the manager was managing their personal money; there can be good and bad results from extensive manager reporting.

Ms. Nault then provided two case studies for Manager A, and one case study for Manager D. These studies provide more detailed analysis of how each manager manages their portfolio. The first study for Manager A involved credit analysis – senior debt of financial institutions. Manager A took positions in senior debt of financial institutions as opposed to subordinated debt. 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. Manager A's portfolio was rewarded in late 2008 and 2009 as senior/subordinated finance spreads widened to more than 400 basis points. The second case study of Manager A involved fundamental analysis and access to management with Spectra Energy. Spectra Energy was spun off by Duke Energy in 2007. The analysis was based on a thorough understanding of Spectra Energy's business through fundamental credit research and access to senior management of the company. Manager A's significant assets under management provided that firm with hundreds of company visits with senior managements each year. Spectra Energy issued 30 year debt in September 2008 at a spread over Treasuries of 320 bps; the issue was now trading at 140 bps, or an increase of 22 points, in the price of the bond showing the payoff of good company research performed by Manager A. Manager D's case study involved fundamental analysis and relative value trades between Comcast and Time Warner. A potential source of performance enhancement is relative value trading. In the Media-Cable sector, Manager D's portfolio had been overweight Comcast and underweight Time Warner Cable. The spread differential between the two companies, which had been hovering around 20 bps, grew to 60 bps. As a result, Manager D decided to sell Comcast and buy TimeWarner Cable. While Manager D believed Comcast was stronger fundamentally, Manager D also believed TimeWarner's debt had been oversold by the market. Ms. Falls asked if the long credit index had about 1200 issues, and Ms. Nault replied in the affirmative. Ms. Falls asked if an active manager typically held about 100 issues, and Ms. Nault replied in the affirmative. Some active managers will not hold certain issues the manager does not like, while some active managers do believe in benchmarking. Mr. Smith noted the overweight versus underweighting of issues is common in fixed income investments.

Ms. Nault concluded by presenting proposed fees for Managers A through D based on a $2 billion mandate. The annual management fees ranged from 0.12% to 0.17%, and all managers were willing to negotiate the fee. Mr. Smith inquired how the fees compared with passive managers. Mr. Dunn replied the average annual fee for Black Rock is 8.5

bpsat $1.5 billion in assets under management. Mr. Dunn indicated for State Street with $4 billion in assets under management, the average annual fee is 3.5%. The fees are comparable to the active management fees of Managers A and D; however, the difference in annual fees between passive and active managers of equities is generally much wider. Mr. Matesich asked if the issue came down to how much volatility the Board of Directors would be comfortable. Mr. Cooper gave his personal opinions on the managers. Manager A essentially did well in 2007, fell way short of the index in 2008 (-3.5%), but significantly outperformed the index in 2009. This amount of volatility concerned Mr. Cooper; he believed a better return could be obtained by a manager without as much volatility. Manager C had several problems. While in 2007 he tracked the index, he substantially outperformed the index in 2008 only to give up the returns in 2009. Manager C had the worst performance in 2009 by a considerable margin. Mr. Cooper did like Manager D. He consistently beat the index, but not by much, and provided a decent return over the three years of 340 bps over index. Manager B was on the cusp. Overall, that manager had the best overall return of the four managers over the three year period, 550 bps over index; however, in 2007 and 2008, Manager B beat the index by 260 bps and 350 bps, respectively. In 2009, Manager B was off the index by 60 bps. In summary, Mr. Cooper believed Manager D evidenced a clear cut advantage to a passive manager or indexer. Mr. Price appreciated Mr. Cooper's comments, but he believed Manager B made the most sense because he had the best overall performance relative to the other three managers over this three-year period with excess return of 500 bps over the benchmark index, with the next best manager at about 340 bps over the index for the three years. Mr. Smith reminded Mr. Price that the SEC requires statements that past performance is not indicative of future performance. Mercer, and whatever firm will succeed Mercer, will make judgments on how long the performance of a manager can be sustained, and this discussion is very important. Mr. Smith agreed with a previous statement by Ms. Falls in that he also would like to see the risk adjusted returns. Mr. Pitts note Manager D had the lowest fees, and Manager B had the highest. Mr. Cooper agreed these were factors that weighed in the decision process.

Mr. Smith stated the Board of Directors needed to examine where opportunities exist with active management. The economic situation is just too uncertain to remain with just passive management. He believed the one asset class most attractive for active management was long credit, and Mr. Dunn had recommended 20% of total assets reflected in long credit holdings be transferred to active management. Mr. Dunn confirmed this information, and that several other existing asset mandates are also being considered for active management. Mr. Dunn also noted the amount to be placed under active management is equally important, and up to the 38% of the investment portfolio may be placed under active management based on his recommendations presented in previous meetings. As to why the Bureau was looking at active management for long credit, active managers can control risk better than passive managers. Passive managers have to buy and hold issues over a declining credit market, and these managers also don't even match the benchmark index in performance as they have relatively large tracking error tolerances to the benchmark. Active managers bring to the table a goal of having to beat the market index returns. While he believed active management was inappropriate for the majority of the portfolio, certain asset classes could beat benchmarks with active management. State Street and Black Rock have wide tracking error tolerances; for State Street, if they performed within 25 to 30 bps of the index, they did their job, but in the past 12 months they have underperformed by 37 bps. Black Rock likewise had a 25 bps tracking underperformance to the benchmark index over the past 12 months, and their tracking error tolerance has been in the low to mid teens. These two large indexers have huge economies of scale for trading, yet they cannot very closely track benchmarks over the last 12 months before fees. While the goal may be a 25 bps tracking error before fees, the passive managers underperformed the benchmark index by 25-40 bps before fees. Active managers are performing above benchmarks according to the Mercer manager performance database and have a goal of outperforming benchmarks by 50-60 bps before fees, which creates a large performance expectation difference which is significant. Over the last three years, passive long credit managers have been performing in the 80th percentile. These two Bureau passive index managers have not met the benchmark in performance, nor was Mr. Dunn confident that they would. There were 100 new issues in the benchmark index over one recent month, and passive managers have to perform a lot more turnover than one would expect. The U.S. Aggregate benchmark has 8,000 issues, and State Street is supposed to have a 10 bps tracking error, which they have not quite met. Mr. Smith noted next month, with a proposal regarding active credit management, there will be additional discussion, and Mr. Dunn confirmed an action by vote would most likely occur in February 2011.

Ms. Falls inquired to Mr. Cooper and Ms. Nault how often organizations shift from passive to active management, and what percentage of the portfolio shifts. Mr. Cooper replied the movement was always the other way, from active to passive management. When the shift occurs from active to passive management, 50% of a portfolio is a rule of thumb, but there was no magic number in light of human characteristics of each fund. Mr. Cooper noted he had never seen even a small fund move from passive to active management. Mr. Price appreciated Mr. Dunn's comments and desired a memorandum on the topic. Mr. Dunn said he would provide one. Ms. Falls asked if there were any preconceptions to going to active management, and Mr. Dunn and Ms. Nault confirmed they were in support. Mr. Cooper was on the fence regarding the amount we should deploy to active management; it was easier to make the decision to be active with not many managers. The data showed it was fairly easy to beat the benchmark, but the burden of proof was that the index looks decent versus the managers. Long credit is the only passive indexed asset class to significantly trail benchmarks, so there was some drive to active management. Ms. Falls was persuaded regarding a transition to active management, but she was also concerned; she had been through too many credit cycles in her lifetime, and these credit cycles typically last seven years.

Mr. Pitts inquired if the Bureau was looking at active management for small cap equities. Mr. Dunn replied in the affirmative, but this transition was not a top priority. The proposal was in Phase II, not Phase I. Ms. Falls noted when a decision is made the Board will have to address a number of governance issues. Mr. Cooper commented the time demands of the Board of Directors will be the biggest issue. Mr. Smith noted the IPS will need comments regarding tolerance. Mr. Dunn inquired how intense the memorandum requested had to be because there was three to four months to work out the details. Mr. Smith replied the Governance Committee piece would have to be added in one to three months before a manager was hired. Mr. Dunn suggested the governance issue be an Investment Committee decision. Mr. Dunn inquired if the governance piece had to be in place before the IPS update was presented because there were several months before this transition would occur. Mr. Smith recommended calendar items be added, and Mr. Dunn concurred.

Mr. Price asked if a transition from active to passive management was an indication of conservativeness. Mr. Cooper noted between the 1960s and 1980s, active management was the only option. However, passive management was demonstrated to stand up to, or exceed, active manager returns in many asset classes. Ms. Nault said there was a flow from active management to passive management, but now the flow may be changing. Administrator Ryan noted the governance issues will also involve determining the number of internal personnel needed as well as their job classifications. These personnel issues will drive appropriate governance budget, and Ms. Falls agreed.

7. **Committee Calendar**

Mr. Smith stated next month's Committee Calendar had two topics on the agenda: MWBE MoM RFP issuance approval with vote; and the first review of Long Credit active management, IPS revision. Mr. Matesich noted various news reports recently were discussing QE2. He inquired if the Investment Committee should have discussions on what QE2 is, and how QE2 would affect the Bureau's investment portfolio. Mr. Smith replied that Federal Reserve economists would be coming to the Board of Directors meeting in February 2011, which would address this topic.

ADJOURNMENT

Ms. Falls moved to adjourn the meeting at 12:40 PM, seconded by Mr. Haffey. The meeting adjourned with a 6-0 unanimous roll call vote.