

**OHIO PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
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**MEMORANDUM**

DATE: October 17, 2006

TO: OPERS Retirement Board Members

FROM: John Blue, Portfolio Manager  
Eric France, Portfolio Manager

RE: **Proposed Changes to Global Bond Policy  
Internal Long Duration Portfolio Guidelines**

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**Proposed Action**

Staff recommends approval of the proposed Global Bond Policy in Exhibit 1, effective January 1, 2007.

Staff recommends approval of the proposed Internal Long Duration Portfolio Guidelines in Exhibit 3, effective January 1, 2007. Staff further recommends that the guidelines relating to the minimum credit sector exposure and maximum issuer exposure be waived until the Long Duration portfolio has reached \$3 billion in total size.

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**Purpose**

This memorandum presents the rationale for changes to the Global Bond Policy and the Long Duration Portfolio Guidelines.

**Background**

In September 2006, the Investment Committee approved a new Statement of Policies and Objectives for the Defined Benefit Fund. A major change relating to Global Bonds was the change in benchmark from the Lehman Universal Index to a custom benchmark consisting of 60% Lehman Universal Index; and 40% Lehman Long Government/Credit Index.

Staff will implement the above change by moving 40% of assets (approximately \$6 billion) from the existing Global Bond Universal Portfolio to a new Internal Long Duration Portfolio benchmarked to the Lehman Long Government/Credit Index. This will result in the Defined Benefit Global Bond assets having an overall duration of approximately 7 years, compared to the current duration of approximately 4.6 years. The transition will be completed by the end of 2007, with the pace dictated by market conditions. Implementing the revised Defined Benefit Policy requires modifications to the Global Bond Policy and the creation of guidelines for the new portfolio.

## Global Bond Policy Revisions

The proposed Global Bond Policy is shown in Exhibit 1, with a redline version shown in Exhibit 2. The key changes to the Global Bond Policy are as follows:

- **Section II:** Clarified that there are four main portfolios within the Global Bond Asset Class:
  - Global Bond Universal: existing portfolio used in both Defined Benefit and Health Care Funds. The portfolio consists of core, high yield, and emerging market debt portfolios and is benchmarked to the Lehman Universal Index. This was formerly known as Global Bonds, but the name has been changed to differentiate between the portfolio and the broader Global Bond Asset Class.
  - Long Duration: new portfolio created to implement the revised Defined Benefit policy.
  - TIPS: existing portfolio used in the Health Care Fund.
  - Short Duration: existing portfolio used in the Health Care Fund.
- **Section IV:** Added a table to show the range for each of the portfolios utilized in the Defined Benefit Fund (Global Bond Universal 55-65% and Long Duration 35-45%).
- **Section IV:** Added a table to show the allocation for the portfolios utilized in the Health Care Fund (Global Bond Universal 15% of total HC Fund; TIPS 20%; and Short Duration 15%).
- **Section V(C):** Removed the section relating to leverage. Leverage is adequately addressed in Section V(B) which states:

“Derivatives may only be used to create exposures that are consistent with the risk parameters outlined in Section VII-Risk Management or individual portfolio guidelines, and must be used in a manner consistent with the Ohio Public Employees Retirement System Derivatives Policy.”
- **Section VI:** Added a chart showing benchmarks and performance objectives.
- **Section VII (A):** Added text to indicate the duration of the Defined Benefit Global Bond assets must be within 20% of benchmark.
- **Section VII (A):** Reduced the maximum duration deviation relative to the index for the Global Bond Universal portfolio from 20% to 10%.
- **Section VII (C):** Added text to indicate that the specific responsibilities of the investment advisor will be established through contractual agreements.

These changes are consistent with the changes to Defined Benefit policy and are appropriate given our desire to manage Global Bond assets in a conservative manner.

## Long Duration Portfolio Guidelines

The Long Duration portfolio guidelines have similar restrictions as the other internally managed portfolios. The full guidelines are in Exhibit 3. The main guidelines are:

Guideline	Limit	Comment
<b>Benchmark</b>	Lehman Long Government/Credit Index	Internal Core uses Lehman Aggregate Index
<b>Performance Objective</b>	Index +15 bps	Internal Core is Index +23 bps
<b>Tracking Error</b>	40 bps	Internal Core is 60 bps
<b>Duration</b>	95-105% of Index	Same as Internal Core
<b>Sector Weightings</b>		
Credit	75-125% of Index	Same as Internal Core
Mortgage Backed Securities (MBS)	<10%	MBS is 35% of Aggregate Index, but is not included in Long Gov/Credit
Commercial Mortgage Backed Securities (CMBS)	<10%	Same as Internal Core
Asset Backed Securities (ABS)	<10%	Same as Internal Core
<b>Issuer Exposure (Credit)</b>		
AAA/AA	Index Weighting +2%	Same as Internal Core
A	Index Weighting +1%	Same as Internal Core
BBB	Index Weighting +0.5%	Same as Internal Core
Non-Investment grade, non-rated, and internal watchlist	Index Weighting +0.25%	Same as Internal Core

These guidelines are consistent with the portfolio's strategy of achieving out performance in a duration-neutral risk controlled manner. Security selection and sector rotation are the main sources of out performance. The performance objective is lower for the Long Duration portfolio than the Internal Core because the Internal Core has greater opportunity to add value through sector rotation and security selection in the MBS, CMBS, and ABS sectors. Due to the transaction costs related to building the Long Duration portfolio, the performance objective for 2007 will be to meet the return of the benchmark.

With the initial funding of the Long Duration portfolio, certain aspects of the guidelines will initially be difficult to maintain in a cost efficient manner. We recommend that the guidelines for the minimum exposure to the credit sector and the maximum exposure to individual issuers in the credit sector be waived until the portfolio has reached \$3 billion in total size. This will allow staff to purchase corporate issues in a size that is appropriate for the portfolio once it is fully funded and should lead to lower transaction costs.

### Recommendation

The Global Bonds staff recommends that the Board approve the proposed Global Bond Policy and the Internal Long Duration Portfolio Guidelines. These policies are consistent with the Statement of Investment Objectives and Policies for the Defined Benefit Fund that was approved in September.

## MEMORANDUM

**To:** Investment Committee  
**Ohio Public Employees Retirement System**

**From:** Kris Ford, CFA  
Brady O'Connell, CFA

**Date:** October 17, 2006

**Re: Proposed Changes to the Global Bonds Policy**

Staff has proposed changes to the Global Bonds Policy as a result of the recent Defined Benefit policy work creating a long duration component. Additionally, Staff has proposed guidelines for this new Long Duration portfolio. We have reviewed these proposals with Staff. We support the Policy revisions, the proposed Long Duration portfolio guidelines and Staff's request for waiver of certain of the guidelines to accommodate efficient construction of the Long Duration portfolio.

### **Global Bonds Policy**

One of the major revisions to the Policy document is the addition of language and formatting to clarify the structure of the Global Bonds asset class. The Global Bonds asset class includes four major portfolios – the newly re-named Global Bonds Universal, the Long Duration, the Short Duration and the Treasury Inflation Protected Securities (TIPS) portfolios. Not all portfolios are used for the Defined Benefit investment program and not all are used for the Health Care investment program. Further, the Global Bonds Universal portfolio (formerly named "Global Bonds") is composed of Core, High Yield and Emerging Market Debt portfolios. Staff's revisions have added clarity to the structure, composition and objectives of each of these portfolios.

The other major revisions to the Policy are the addition of the Long Duration portfolio, and the tightening of the duration range of the Global Bonds Universal portfolio.

The addition of the Long Duration portfolio is a result of the asset allocation and policy work completed and approved for the Defined Benefit Plan. The Long Duration portfolio is intended to add liability sensitivity to the Defined Benefit investment program by investing in securities with longer maturities, more like the longer "maturity" liabilities of the Plan.

The tightening of the duration range or the limiting of the interest rate risk in the Global Bonds Universal portfolio is a conservative move and one that is expected to provide more stability in both the Defined Benefit and Health Care investment programs. It is consistent with its use as a core part of the investment programs that also include longer duration investments (in the case of the Defined Benefit Plan) and shorter duration investments (in the case of the Health Care Plan).

### **Long Duration Guidelines**

We find that the proposed guidelines for the Long Duration portfolio are consistent with the profile of a portfolio intended to deliver duration (a more liability-like maturity characteristic) using higher quality securities. The use of the Lehman Brothers Long Government Credit Index as the benchmark is appropriate; the tracking error and expected alpha of 15 basis points relative to the benchmark appears to be consistent. Lastly, we support Staff's request that sector and issuer exposure limitations be waived until such time as the portfolio reaches an appropriate size in order to accommodate the efficient construction of the final portfolio.



**Ohio Public Employees Retirement System**

**Global Bonds Policy  
October 2006  
DRAFT**

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## Revision History

Policy established  
Policy revised

September 2003  
June 14, 2005

## **I. SCOPE**

This policy applies to the Global Bonds assets within the Ohio Public Employees Retirement System (“OPERS”) Defined Benefit Fund and the Health Care Fund. The investment options for the Defined Contribution Fund are governed by the *Defined Contribution Fund Statement of Investment Objectives and Policies*.

## **II. PURPOSE**

This policy provides the broad strategic framework for managing Global Bonds assets, which includes the Global Bonds Universal portfolio, the Long Duration portfolio, the Treasury Inflation Protected Securities (TIPS) portfolio, and the Short Duration portfolio.

## **III. INVESTMENT PHILOSOPHY**

OPERS seeks to obtain broad diversification of the Global Bonds assets in order to diversify plan assets and provide a hedge on long term plan liabilities and rising health care costs.

The Global Bonds portfolios utilize both active and passive management strategies. In addition, the asset class utilizes both internal and external portfolio management. The internal core portfolio uses a risk-controlled active strategy focusing on investment grade securities. Currently, external managers are used for the high yield and emerging debt sectors, which require specialized expertise. The Long Duration, the TIPS, and the Short Duration portfolios are internally managed using risk controlled active strategies.

## **IV. PORTFOLIOS**

Defined Benefit assets will be invested in the Global Bond Universal portfolio and the Long Duration portfolio as follows:

<b>Portfolio</b>	<b>Range</b>
<b>Global Bond Universal</b>	55-65%
<b>Long Duration</b>	35-45%



Health Care assets will be invested in the Global Bond Universal portfolio, TIPS portfolio and Short Duration portfolio. The allocations are specified in the *Health Care Fund Statement of Objectives and Policies* as a % of the total Health Care Fund as follows:

<b>Portfolio</b>	<b>Target (percent of Total Health Care Fund)</b>	<b>Range (percent of Total Health Care Fund)</b>
<b>Global Bonds Universal</b>	15%	+/- 3%
<b>TIPS</b>	20%	+/- 3%
<b>Short Duration</b>	15%	+/- 3%

Global Bond Universal Portfolio

The Global Bond Universal portfolio is a combination of core, high yield, and emerging market debt portfolios. The allocations and ranges for high yield and emerging market debt are based on each sector’s weighting in the Lehman Brothers Universal Bond Index. The following table shows the portfolio structure for the Global Bond Universal portfolio.

<b>Portfolio</b>	<b>Range</b>
<b>Core</b>	85-95%
<b>High Yield</b>	4-10%
<b>Emerging Market Debt</b>	1-6%

The portfolios will be rebalanced to allow staff to remain within the specified guidelines. Staff may also rebalance to take advantage of short and longer-term opportunities in the market. In implementing such portfolio adjustments, staff shall analyze the strategic benefits relative to the transaction costs. Descriptions of the performance objective and the setting of the risk budget are provided in the portfolio guidelines.

## **Core**

*Benchmark is the Lehman Brothers Aggregate Index.*

The majority of the assets within the Global Bond Universal portfolio are managed by internal staff using a risk controlled core strategy. Core portfolios seek to outperform primarily through sector and security selection, and typically have small duration deviations relative to the index. The internal core portfolio focuses on investment grade securities although it may hold securities outside of the benchmark. The internal portfolio maintains a high level of issuer diversification and has duration deviations relative to the index at less than 5%. External Managers can also be used for core mandates.

## **High Yield Debt**

*Benchmark is the Lehman Brothers High Yield Index or a similar index as appropriate for the specific mandate and strategy*

High yield securities represent approximately 6% of the Lehman Brothers Universal Index. Due to the high level of credit risk in this sector, external specialists are currently used for high yield debt portfolios. The out performance comes from security selection, which is supported by labor-intensive credit research. In order to take advantage of opportunities in the sector, portfolio guidelines give the managers discretion in the high yield universe. The investment guidelines for each portfolio shall specify an appropriate benchmark for that portfolio.

The high yield allocation may utilize internally managed index strategies to allow staff the flexibility to tactically adjust the exposure to the high yield sector. These index portfolios will provide broad, diversified exposure to the high yield market.

## **Emerging Market Debt**

*Benchmark is the Lehman Brothers Emerging Market Debt (EMD) Index or a similar index as appropriate for the specific mandate and strategy*

Emerging market debt securities represent approximately 3% of the Lehman Brothers Universal Index. External managers are currently used for emerging market debt due to the need for specialized expertise and resources. Emerging market debt managers primarily add value through country selection. The investment guidelines for each portfolio will specify the appropriate benchmark for that portfolio.

### Long Duration Portfolio

*Benchmark is the Lehman Brothers Long Government/Credit Index*

The internally managed Long Duration portfolio is designed to meet or exceed the return of the Lehman Long Government/Credit Index with a low level of tracking error. The primary source of out performance for the fund is security selection.

### TIPS Portfolio

*Benchmark is the Lehman Brothers TIPS Index*

The internally managed TIPS portfolio is designed to exceed the return of the Lehman TIPS Index with a low level of tracking error.

### Short Duration Portfolio

*Benchmark is Lehman Brothers 1-3 Year Government Bond Index*

The internally managed Short Duration portfolio is designed to exceed the return of the Lehman Brothers 1-3 Year Government Bond Index with a low level of tracking error. The primary source of out performance for the fund is security selection.

## **V. INVESTABLE INSTRUMENTS AND RESTRICTED INVESTMENTS**

### **A. Investment types**

This policy authorizes the holding of all forms of fixed income securities. Individual portfolio guidelines indicate limits on specific security types.

### **B. Derivatives**

Derivatives are permitted within the Global Bonds asset class. Derivatives may only be used to create exposures that are consistent with the risk parameters outlined in Section VII-Risk Management or individual portfolio guidelines, and must be used in a manner consistent with the *Ohio Public Employees Retirement System Derivatives Policy*.

## VI. PERFORMANCE OBJECTIVES

The benchmarks and objectives for the each of the portfolios are listed in the table below. Each portfolio is expected to outperform its benchmark by the amount specified over a three-to-five year market cycle, net of fees.

<b>Portfolio</b>	<b>Benchmark</b>	<b>Objective</b>
Defined Benefit – Global Bonds	60% Lehman Universal; 40% Lehman Long Gov/Credit	+ 25 bps
Global Bonds Universal	Lehman Universal	+ 32 bps
Long Duration	Lehman Long Government/Credit	+ 15 bps
TIPS	Lehman TIPS	+ 15 bps
Short Duration	Lehman 1-3 Yr. Government	+ 25 bps

## VII. RISK MANAGEMENT

The expected tracking error (active risk) for the Global Bonds asset class is determined by investment staff using risk budgeting and/or other techniques. Limits for individual portfolios will also be determined. The allowable allocation range for each portfolio type and the investment guidelines defined for each portfolio are designed to keep the Global Bonds asset class within its expected tracking error guideline. Individual portfolio guidelines include relative duration and sector deviations from index, issuer quality and position limits.

### A. Interest rate risk

The average effective duration of all Defined Benefit assets must be within 20% of the average effective duration of the benchmark (60% Lehman Universal Index; 40% Lehman Long Government/Credit Index). The average effective duration of the Global Bond Universal portfolio must remain within 10% of the Lehman Brothers Universal Index. The Long Duration, Short Duration, and TIPS portfolios will each have appropriate parameters defined within their own portfolio guidelines.

### B. Credit risk

Non-investment grade securities are limited to 15% of the Global Bonds asset class. Limitations on the holding of non-investment grade securities will be included in the portfolio guidelines to ensure compliance with this constraint. Individual issuer limits will also be included in all portfolio guidelines, reducing the impact of individual credit defaults.

### **C. Currency risk**

The Global Bonds asset class will take very little currency risk. Non-US dollar based securities are limited to 5% of the total Global Bonds assets. The investment guidelines for each portfolio will indicate the maximum limit to non-US dollar securities.

### **D. Non-U.S. issuer risk**

The Lehman Brothers Universal Index includes fixed income securities issued in U.S. dollars, regardless of the home country of the issuer. Approximately 12% of the Lehman Universal Index consists of securities by issuers domiciled outside of the United States. No more than 25% of Global Bonds assets will be from non-U.S. issuers.

## **VIII. ROLES AND RESPONSIBILITIES**

### **A. Board of Trustees**

The Board is responsible for approving the Global Bonds Policy and Strategy. The Board will review this document periodically and approve any recommended changes.

### **B. Investment Staff**

The Global Bonds staff, in conjunction with the External Management, Public Markets staff is responsible for recommending the policy and managing the Global Bonds program within the framework of the Board approved policy. Global Bonds staff is also responsible for monitoring and reporting to the Board, which is in accordance with the requirements of the OPERS funds policies.

### **C. Investment Advisor**

The investment advisor assists staff with policy recommendations and provides advice to the Board. The investment advisor likewise assists staff in monitoring the external managers and reports to the Board independently, which is in accordance with the requirements of the OPERS funds policies. Specific responsibilities will be established with the investment advisor through contractual agreements.

## **IX. MONITORING AND REPORTING**

### **Quarterly**

- Performance report prepared by the investment advisor
- Investment report prepared by staff
- Compliance report prepared by staff

### **Annual**

- *OPERS Annual Investment Plan* submitted by staff
- Year-end asset class review submitted by staff



## Ohio Public Employees Retirement System

**Global Bonds Policy**

**October 2005**

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**Revision History**

Policy established  
Policy revised

September 2003  
June 14, 2005

**I. SCOPE**

This policy applies to the Global Bonds assets within the Ohio Public Employees Retirement System (“OPERS”) Defined Benefit Fund and the Health Care Fund. ~~In addition, this policy also applies to the Short-Duration Bond and Treasury Inflation Protected Securities (“TIPS”) assets in the Health Care Fund.~~ The investment options for ~~Global Bonds, Short Duration Bond and TIPS, if any, within~~ the Defined Contribution Fund are governed by the Defined Contribution Fund Statement of Investment Objectives and Policies.~~Defined Contribution Policy.~~

**II. PURPOSE**

This policy provides the broad strategic framework for managing ~~the~~ Global Bonds assets ~~class, which includes the Global -Bonds -Universal portfolio-Composite portfolio, the the Long Duration portfolio-Bond portfolio, the Bond portfthe the Treasury Inflation Protected Securities (TIPS) portfolio, and the Short- Duration portfolio.portfolios.~~

**III. INVESTMENT PHILOSOPHY**

OPERS seeks to obtain broad diversification of the Global Bonds assets in order to diversify plan assets and provide a hedge on long term plan liabilities and rising health care costs.

The Global Bonds portfolios utilize both active and passive management strategies. In addition, the ~~The Global Bonds~~ asset class utilizes both internal and external portfolio management. The internal core portfolio uses a ~~has~~ utilizes a risk-controlled active core ~~strategy~~ focusing on investment grade securities. Currently, ~~e~~External managers are used for the high yield and emerging debt sectors, which require specialized expertise.

The Long -Duration-portfolio, the TIPS, and the Short- Duration-portfolio portfolios are internally managed using risk controlled active strategies.

**IV. PORTFOLIO ALLOCATION**

Defined Benefit assets will be invested in the Global Bond Universal portfolio and the Long Duration portfolio as follows:

<u>Portfolio</u>	<u>Range</u>
<u>Global Bond Universal</u>	<u>55-65%</u>
<u>Long Duration</u>	<u>35-45%</u>

|

Health Care assets will be invested in the Global Bond Universal portfolio, TIPS portfolio and Short Duration portfolio. The allocations are specified in the *Health Care Fund Statement of Objectives and Policies* as a % of the total Health Care Fund as follows:

<u>Portfolio</u>	<u>Target (percent of Total Health Care Fund)</u>	<u>Range (percent of Total Health Care Fund)</u>
<u>Global Bonds Universal</u>	<u>15%</u>	<u>+/- 3%</u>
<u>TIPS</u>	<u>20%</u>	<u>+/- 3%</u>
<u>Short Duration</u>	<u>15%</u>	<u>+/- 3%</u>

### Global Bond Universal Portfolios

~~The Within the -Global Bond Universal portfolio is a combination of core, high yield, and emerging market debt portfolios. This portfolio in the Defined Benefit Fund and the Health Care Fund, the allocations and ranges for to the high yield and emerging market debt are based on each sector's weighting in the Lehman Brothers Universal Bond Index. The following table shows Within the Global Bonds allocation in the Defined Benefit Fund, the targets for high yield and emerging market debt allocations are based on each sector's weighting in the Lehman Brothers Universal Index. The ranges listed below were designed to ensure that the Global Bonds composite remains within an acceptable risk range relative to the Lehman Brothers Universal Index. the portfolio structure for the Global Bond Universal portfolio Asset Class.~~

<b>Portfolio</b>	<b>Range</b>
<b>Core</b>	85-95%
<b>High Yield</b>	4-10%
<b>Emerging Market Debt</b>	1-6%

~~Allocations for high yield and emerging market debt will be determined by internal staff with the goal of delivering alpha or out performance relative to the asset class benchmark. Descriptions of the performance objective and the setting of the risk budget are provided in the *OPERS Annual Investment Plan*.~~

~~The Defined Benefit Fund will also have a separate Long Duration Bond allocation as defined within the *Defined Benefit Fund Statement of Investment Objectives and Policies*. Within the Health Care Fund, the Global Bonds allocation will have high yield and emerging market debt as described above. In addition, the Health Care Fund will have separate TIPS and Short Duration Bond allocations as defined within the *Health Care Fund Statement of Objectives and Policies*. Policy.~~

The portfolios will be rebalanced, as determined by staff needed, in order for the overall structure to allow staff to remain within the specified portfolio

guidelines.ranges. Staff may also rebalance to take advantage of short and longer-term opportunities in the market. In implementing such portfolio adjustments, staff shall analyze the strategic benefits relative toversus the transaction costs. Descriptions of the performance objective and the setting of the risk budget are provided in the portfolio guidelines.

## Core

~~Objective is Benchmark is the ——— Managed Against the ——— Lehman Brothers Aggregate Index or similar index as appropriate for the specific mandate and manager strategy.~~

The majority of the assets within the Global Bond ~~Universal portfolios asset class~~ are managed by internal staff using a risk controlled core strategy. Core portfolios seek to outperform primarily through sector and security selection, and typically have small duration deviations relative to the index. ~~The internal cCore portfolios focuses~~ on investment grade securities ~~although it may hold securities outside of the benchmark,; and hold small amounts of securities not included in the index.~~ The ~~i~~internal portfolio maintains a high level of issuer diversification and has duration deviations relative to the index ~~at that are~~ less than 5%. ~~External Managers can also be used for core mandates.~~

## High ~~y~~Yield ~~D~~Debt

~~Objective Benchmark is ——— Managed against the ——— the Lehman Brothers High Yield Index or a similar index as appropriate for the specific mandate and ——— manager strategy~~

High yield securities represent approximately 67% of the Lehman Brothers Universal Index~~universal index~~. Due to the high level of credit risk in this sector, external specialists are currently used for high yield debt portfolios. The out performance comes from security selection, which is supported by labor-intensive credit research. In order to take advantage of opportunities in the sector, portfolio guidelines give the managers ~~broad~~ discretion in the high yield universe. The investment guidelines for each portfolio shall specify an appropriate benchmark for that portfolio.

~~The high yield allocation is ——— allocation ———~~ may utilize internally managed ~~—~~index strategies to allow staff the flexibility to tactically adjust the exposure to the high yield sector. These index portfolios will provide broad, diversified exposure to the high yield market.

## Emerging ~~M~~Market ~~D~~Debt

~~ObjectivBenchmarke is Managed against the ——— Lthe Lehman Brothers Emerging Market Debt (EMD) Index or a similar index as appropriate for the specific mandate and manager strategy~~

Emerging market debt securities represent approximately 3% of the Lehman Brothers U-universal Index. External managers are currently used for emerging market debt due to the need for specialized expertise and resources. Emerging market debt managers primarily add value through country selection. The investment guidelines for each portfolio will ~~shall~~ specify the ~~an~~ appropriate benchmark for that portfolio.

Long Duration Portfolio

Benchmark Objective is the Lehman Brothers Long Government/Credit Index

The internally managed Long Duration portfolio is designed to meet or exceed the return of the Lehman Long Government/Credit Index with a low level of tracking error. The primary source of out performance for the fund is security selection.



TIPS Portfolio

~~Objective Benchmark is Managed against the~~ Lehman Brothers TIPS  
*Index*

The internally managed TIPS portfolio is designed to exceed ~~meet~~ the return of the  
Lehman TIPS Index with a low level of tracking error.

## Short-Duration Portfolio

~~Objective-Benchmark is Managed against the~~ Lehman Brothers 1-3 Year Government Bond Index

The internally managed Short-Duration portfolio ~~fund~~ is designed to ~~meet or~~ exceed the return of the Lehman Brothers 1-3 Year Government Bond Index with a low level of tracking error. The primary source of out performance for the fund is security selection.

## V. INVESTABLE INSTRUMENTS AND RESTRICTED INVESTMENTS

### A. Investment types

This policy authorizes the holding of all forms of fixed income securities. Individual portfolio guidelines indicate limits on specific security types.

### B. Derivatives

Derivatives are permitted within the Global Bonds asset class. Derivatives may only be used to create exposures that are consistent with the risk parameters outlined in Section VII-Risk Management or individual portfolio guidelines, and must be used in a manner consistent with the ~~The use of derivatives must be consistent with each portfolio guideline and the Ohio Public Employees Retirement System's Derivatives Policy. Statement of Objectives, Policies, and Guidelines for Derivatives Use.~~

## Leverage

~~The use of leverage in the Global Bonds asset class is prohibited. The underlying cash from the mortgage “dollar roll” and derivative positions will be invested in short term securities according to portfolio investment guidelines or in a short term investment fund managed by internal staff or a designated external manager. These underlying short term investments are not considered leverage.~~

## VI. PERFORMANCE OBJECTIVES

The benchmarks and objectives for the each of the portfolios are listed in the table below. Each portfolio is expected to outperform its benchmark by the amount specified over a three-to-five year market cycle, net of fees.

Portfolio	Benchmark	Objective
Defined Benefit – Global Bonds	60% Lehman Universal; 40% Lehman Long Gov/Credit	+ 25 bps
Global Bonds Universal	Lehman Universal	+ 32 bps
Long Duration	Lehman Long Government/Credit	+ 15 bps
TIPS	Lehman TIPS	+ 15 bps
Short Duration	Lehman 1-3 Yr. Government	+ 25 bps

## VII. RISK MANAGEMENT

The ~~—~~expected tracking error (active risk) for the Global Bonds asset class is determined by investment staff using risk budgeting and/or other techniques, ~~and must conform to the maximum stated in the OPERS Annual Investment Plan, and is expected to be no higher than 90 basis points per annum measured over rolling three-to-five year periods. Staff may, in the OPERS Annual Investment Plan presented for Board approval, define tracking error targets for specific portfolios provided the overall asset class tracking error is expected to stay within 90 bps. Limits for individual portfolios will also be determined contained in the OPERS Annual Investment Plan.~~ The allowable allocation range for each portfolio type and the investment guidelines defined for each portfolio are designed to keep the Global Bonds asset class within its expected tracking error guideline. Individual portfolio guidelines include relative duration and sector deviations from index, issuer quality and position limits.

### A. Interest rate risk

~~The average effective duration of all Defined Benefit assets must be within 20% of the average effective duration of the benchmark (60% Lehman Universal Index; 40% Lehman Long Government/Credit Index). The average effective duration of the all Global Bond Universal portfolios portfolioassets\_ must remain within 120% of the Lehman Brothers Universal Index. Individual portfolio guidelines within the Global Bonds portfolio will include duration limits to ensure compliance with this parameter. The This clause does not apply to the Long Long Duration portfolio, the Short Duration, and TIPS portfolio or the TIPS portfolios, each of which will have appropriate parameters defined within their own portfolio guidelines.~~

### B. Credit risk

Non-investment grade securities are limited to 15% of ~~the total~~ Global Bonds ~~Bonds asset class portfolioassets.~~ Limitations on the holding of non-investment grade securities will be included in ~~the~~ portfolio guidelines to ensure compliance with this constraint. Individual issuer limits will also be included in all portfolio guidelines, reducing the impact of individual credit defaults.

### C. Currency risk

The Global Bonds asset class will take very little currency risk. Non-US dollar based securities are limited to 5% of the total Global Bonds assets. The investment guidelines for each portfolio will indicate the maximum limit to non-US dollar securities.

### D. Non-U.S. issuer risk

The Lehman Brothers Universal Index includes fixed income securities issued in U.S. dollars, regardless of the home country of the issuer. Approximately 12% of the Lehman Universal Index ~~Lehman Brothers Universal Index index~~ consists of securities by issuers domiciled outside of the United States. No more that 25% of Global Bonds assets will be from non-U.S. issuers. ~~The Lehman Brothers Universal Index includes fixed income securities issued in U.S. dollars, regardless of the home country of the issuer.~~

## VIII. ROLES AND RESPONSIBILITIES

### A. Board of Trustees

The Board is responsible for approving the Global Bonds Policy and Strategy. The Board will review this document periodically and approve any recommended changes.

### B. Investment Global Bonds Staff

The Global Bonds staff, in conjunction with the External Management, Public Markets staff is responsible for recommending the policy and managing the Global Bonds program within the framework of the Board approved policy. Global Bonds staff is also responsible for monitoring and reporting to the Board, which is in accordance with the requirements of the OPERS funds policies.

### C. Investment Advisor

The investment advisor assists staff with policy recommendations and provides advice to the Board. The investment advisor likewise assists staff in monitoring the external managers and reports to the Board independently, which is in accordance with the requirements of the OPERS funds policies. Specific responsibilities will be established with the investment advisor through contractual agreements.

## **IX. MONITORING AND REPORTING**

### **Quarterly**

- Performance report prepared by the investment advisor
- Investment report prepared by staff
- Compliance report prepared by staff

### **Annual**

- *OPERS Annual Investment Plan* submitted by staff
- Year-end asset class review submitted by staff

## Internal Long Duration – Portfolio Guidelines

**Benchmark** Lehman Long Government/Credit Index

**Objective** Outperform the designated benchmark by 15 bps per annum on a three-year rolling basis.

### Portfolio Limitations

Duration	95% - 105% of benchmark
Tracking error	40 basis points maximum
Sector weightings	
Credit	75%- 125% of index weight
MBS	<10%
CMBS	<10%
ABS	<10%
Treasury, Agency, and Short-term securities	50-150% of index weight on a combined basis
Issuer Exposure (credit)	
AAA /AA	Index weighting + 2%
A	Index weighting + 1%
BBB	Index weighting + 0.5%
Non-investment grade, non-rated, and internal watchlist	Index weighting + 0.25%
Currency	U. S. dollars only
Short-term investments	Consistent with OPERS Short Term Policy
Derivatives	Consistent with OPERS Derivatives Policy

### Footnotes:

- Ratings-based guidelines will be based on the lowest rating from Moody's or S&P.
- The limit on total non-investment grade, non-rated, and watchlist securities will be 2% of the total portfolio.





# **Global Bond Policy Revisions**

## **Long Duration Portfolio Guidelines**

October 17, 2006



# Background

- The Board approved a new Defined Benefit Investment Policy in September.
- The new DB Policy calls for a change in benchmark for Global Bonds asset class:
  - From 100% Lehman Universal Index to a 60% weighting to the Lehman Universal Index and a 40% weighting to the Lehman Long Government/Credit Index.
- Internal staff will transition the assets by end of 2007



# GB Policy – Key Changes

## Section II: Clarified four main portfolios:

- 1) **Global Bond Universal** – existing portfolio used in Defined Benefit and Health Care funds. Consists of core, high yield, and emerging market debt portfolios; name changed from Global Bonds to Global Bonds Universal to differentiate from Global Bonds Asset Class;
- 2) **Long Duration** – new portfolio to implement revised Defined Benefit Policy;
- 3) **TIPS** – existing portfolio used in the Health Care Fund;
- 4) **Short Duration** – existing portfolio used in the Health Care Fund



# GB Policy – Key Changes

**Section IV:** Added table to show range for portfolios utilized in DB Fund:

Global Bond Universal	55-65%
Long Duration	35-45%

**Section IV:** Added table to show the allocation for the portfolios utilized in the HC Fund:

Global Bond Universal	15% of total HC Fund
TIPS	20%
Short Duration	15%



# GB Policy – Key Changes

## **Section V(C):** Removed section relating to leverage.

- Leverage is adequately addressed in Section V(B) which states:
  - “Derivatives may only be used to create exposures that are consistent with the risk parameters outlined in Section VII-Risk Management or individual portfolio guidelines, and must be used in a manner consistent with the *Ohio Public Employees Retirement System Derivatives Policy* “



# GB Policy – Key Changes

**Section VI:** Added table to show showing benchmarks and performance objectives:

<b>Portfolio</b>	<b>Benchmark</b>	<b>Objective</b>
Defined Benefit – Global Bonds	60% Lehman Universal; 40% Lehman Long Gov/Credit	+ 25 bps
Global Bonds Universal	Lehman Universal	+ 32 bps
Long Duration	Lehman Long Government/Credit	+ 15 bps
TIPS	Lehman TIPS	+ 15 bps
Short Duration	Lehman 1-3 Yr. Government	+ 25 bps



# GB Policy – Key Changes

**Section VII(A):** Added text to indicate the duration of the DB Global Bond assets must be within 20% of benchmark.

**Section VII(A):** Reduced the maximum duration deviation relative to the index for the Global Bond Universal portfolio from 20% to 10%.



# Long Duration Guidelines

Guideline	Limit	Comment
<b>Benchmark</b>	Lehman Long Government/Credit Index	Internal Core uses Lehman Aggregate Index
<b>Performance Objective</b>	Index +15 bps	Internal Core is Index +23 bps
<b>Tracking Error</b>	40 bps	Internal Core is 60 bps
<b>Duration</b>	95-105% of Index	Same as Internal Core

- Due to transition costs related to building the new portfolio, the objective in the first year will be to meet the return of the benchmark.





# Long Duration Guidelines

Sector Weightings		
Credit	75-125% of Index	Same as Internal Core
Mortgage Backed Securities (MBS)	<10%	MBS is 35% of Aggregate Index, but is not included in Long Gov/Credit
Commercial Mortgage Backed Securities (CMBS)	<10%	Same as Internal Core
Asset Backed Securities (ABS)	<10%	Same as Internal Core
Issuer Exposure (Credit)		
AAA/AA	Index Weighting +2%	Same as Internal Core
A	Index Weighting +1%	Same as Internal Core
BBB	Index Weighting +0.5%	Same as Internal Core
Non-Investment grade, non-rated, and internal watchlist	Index Weighting +0.25%	Same as Internal Core

- The guidelines for minimum credit sector exposure and maximum issuer weighting waived until the portfolio reaches \$3 billion in total size.
- This will allow staff to better manage transaction costs by purchasing new issue corporate bonds as they become available.



# Recommendations

## Staff Recommends:

- Approval of revised Global Bond Policy
- Approval of new Internal Long Duration Portfolio Guidelines
  - Also recommend waiver of guidelines relating to minimum credit sector exposure and maximum issuer exposure until portfolio has reached \$3 billion in total size.