OCERS Board Policy

Investment Policy Statement

The Orange County Employees Retirement System was established in 1945 under the County Employees Retirement Law of 1937. The retirement system exists to provide retirement, disability, and death benefits for qualified employees of Orange County and participating special districts.

As provided by its charter, the Investment Committee governs the investment program. The Investment Committee has the sole authority over the investment portfolio and may delegate responsibilities to the investment staff and external advisors.

I. Purpose of Investment Policy Statement

The purpose of the Investment Policy Statement is to assist the Investment Committee in effectively supervising, monitoring, and evaluating the investment of the system's assets by:

- Stating the Investment Committee's views, expectations, objectives, and risk tolerance for the investment of all assets of the system.
- Formulating an investment structure for managing all assets. This structure includes (1) diversified asset allocation with acceptable ranges and (2) a combination of investment management styles, to produce a sufficient level of overall diversification, and (3) prudent diversification of individual securities positions.
- Setting procedures for policy implementation.
- Providing guidelines for each investment portfolio to control the overall risk.
- Establishing criteria to monitor and evaluate the performance of the fund and investment managers.

II Statement of Objectives

1. The overall objective is to invest the assets of the system solely for the benefit of plan participants and beneficiaries while attempting to minimize employer contributions and investment and administration costs.
2. The long-term performance objective for the portfolio is to exceed the actuarially assumed rate of return net of fees and expenses, with a secondary objective of exceeding the return on an appropriate designated balanced index mutual fund over a complete economic cycle and relevant longer periods, also net of fees and expenses.

III Investment Policy and Guidelines

1. Time Horizon

The Investment Committee will periodically review the portfolio's alignment with the fund's pension liabilities. The investment policy and guidelines are based on a time horizon of greater than five years. The Investment Committee will consider both intermediate-term and longer-term investment return horizons in formulating expected returns and assessing portfolio risk parameters. The system's strategic asset allocation is based on this longer-term perspective. Fluctuations of investment results in the interim should be viewed with an appropriate perspective.

2. Risk Tolerance

Investment opportunities in various asset classes have differing risk and return expectations. In general, investments with higher expected returns involve a higher level of risk. The Investment Committee recognizes that some level of risk must be assumed to achieve the system's long-term investment objectives. The Committee shall establish risk tolerance parameters for the overall portfolio and its major asset classes. The Committee will attempt to achieve its investment return objective with an appropriate level of risk using an efficient combination of investable assets.

3. Liquidity Needs

Sufficient liquidity must be maintained to pay benefits and expenses. Investment income and contributions are expected to exceed projected benefit payments and expenses on an annual basis for the foreseeable future, making it possible to invest a reasonable portion of the portfolio in illiquid investments. The liquidity horizon shall be reviewed each time asset allocations and expected return projections are revised.

4. Performance Objectives

The expected and actual investment returns of the total fund will depend on the asset allocation targets, the mix of investment styles within asset classes, and individual manager performance. Therefore, performance objectives have been set at three levels: total fund, asset class, and individual portfolios.

a. Total Fund

i. Meet or exceed the actuarial rate of interest which has taken into account expected composite portfolio returns. Annualized investment returns (net of fees) should exceed the actuarial interest rate over most five-year periods and over complete economic cycles.

ii. Meet or exceed the policy benchmark. Annualized investment returns (net of fees) to exceed the policy benchmark over five-year periods. The policy benchmark is a composite of the benchmarks of the asset classes in the asset allocation policy. Composition of the policy benchmark is detailed in Appendix 1. Returns in excess of the policy benchmark should indicate that the investment program as a whole is successfully adding value.

iii. Comparison with peer group of funds with comparable metrics. No specific objective is set in terms of ranking because asset allocation, which primarily determines total fund returns, often varies widely between funds. However, the Investment Committee will review rankings of the fund and its asset class components in a peer group for informational purposes.

b. Asset Class Level

Annualized returns (net of fees) for the asset classes should exceed their respective benchmarks over a five-year period. The asset class benchmarks will be broad market indices that are representative of the investment structure for that asset class. For example the Frank Russell 3000 index of U. S. stocks, is chosen as a benchmark for U.S. equities since it represents about 98% of the capitalization of the U.S. equity market, is composed of diversified investment styles, and is an investable index. Current benchmarks for the asset classes are shown in Appendix 1.

c. Individual Portfolios

Performance objectives for manager portfolios are stated in the respective investment-manager-agreements. Returns (net of fees) are expected to exceed the respective benchmarks over three to five-year periods and rank above the median in a peer group. Manager benchmarks will be determined based upon the investment style of the portfolio for which the manager is hired.

5. Asset Allocation

The Investment Committee has adopted a strategic asset allocation plan based upon the fund's projected actuarial liabilities and, liquidity needs, the Investment Committee's risk tolerances and the risk/return expectations for various asset classes. This asset allocation plan seeks to optimize long-term returns for the level of risk that the Investment Committee considers appropriate. The current strategic asset allocation targets and ranges are detailed in Appendix 2. Since projected liability and risk/return expectations will change over time, the Investment Committee will conduct a periodic review of the asset allocation plan to maintain an optimal allocation, and may also revise the asset allocation in response to significantly changing market conditions that have affected valuations and forward-looking expected returns of asset classes.

5.1 Investment Structure and Style

a. Domestic Equity

The Investment Committee may from time to time adopt a style-diversified structure that is designed to reflect aggregate domestic equity portfolio characteristics similar to those of the broad market. Where active management is used this structure will be reviewed periodically to ensure neutrality relative to risk characteristics including: no material differences in beta (market exposure) and characteristics such as growth/value, yield, price to earnings, capitalization of companies, etc.

The Investment Committee will periodically review the use of passive management and adjust targets based on the then-current evidence of the benefits of active vs. passive management.

b. Global Equity

The global equity portfolio allows investment managers to add value and take advantage of global opportunities in equities without the constraints of country allocation or currency controls. For such portfolios, the retained investment managers will have the authority to invest in both US and non-US based equities, including emerging markets. Hedging of currency exposure to control risk will be permitted.

c. International Equity

The international equity portfolio shall be broadly diversified across countries outside of the U.S. identified as developed and emerging markets. The portfolio shall also be diversified across industry sectors. Hedging of currency exposure to control risk will be permitted.

d. Emerging Market Equity

Emerging equity markets are included and constrained in the asset allocation to provide appropriate diversification to international equity. The portfolio shall be broadly diversified across various emerging markets and frontier markets, as defined by MSCI emerging markets criteria.

e. Domestic Fixed Income

The domestic fixed income structure is designed to provide diversification across sectors (government, corporate, mortgage, asset backed etc.) maturity/duration segments, and quality. The structure uses a combination of passive and active management. In order to control risk, managers have specific guidelines on duration, quality, and single-issue exposure. Hedging may be permitted for unconstrained fixed income managers.

f. Global Fixed Income

Global fixed income is included in the asset allocation to provide diversification. This portfolio will be invested primarily in developed countries and be broadly diversified across such countries. Hedging of currency exposure to control risk is permitted.

g. Emerging Market Debt

Emerging market debt securities represent investments in both hard currency and local currency debt issues of emerging market countries or entities domiciled or traded in emerging market countries. These securities have been included in the asset allocation to provide higher yields combined with diversification benefits including currency diversification. Hedging of currency may be permitted.

h. Diversified Credit

Diversified Credit is a global allocation that includes a number of diverse fixed income-related strategies. It represents an allocation that is diversified by region, by credit quality, and by sources of risk. The general shared characteristics of these strategies are a degree of illiquidity, and a focus on current yield as a principal source of expected return. Hedging of market and individual security risks and diversified risk-controlled tactical trading may be permitted.

i. Absolute Return (Hedge Funds/GTAA (Global Tactical Asset Allocation)

The allocation to absolute return strategies (Hedge funds/GTAA) includes investments in equities, bonds, currencies, inflation-linked bonds and emerging markets. Absolute return (Hedge Funds/GTAA) is included in the asset allocation to provide risk diversification, as most of these strategies are expected to have lower correlation to public equities and fixed income. (Some forms of GTAA may be expected to correlate with public markets.) Derivatives may be used as substitutes for natural positions, for diversified tactical trading, and for hedging, provided that risk controls are reviewed periodically by the Chief Investment Officer (CIO), the investment staff and the consultant engaged in the manager's selection and monitoring.

j. Real Return

Real return strategies have been added to the asset allocation mix to provide an inflation hedge. The allocation is represented by Treasury Inflation Protection Securities, timber, commodities, energy, agriculture, and may include other strategies. Derivatives may be used as substitutes for natural positions but not for speculative leverage.

k. Real Estate

Real estate is included in the asset allocation to provide diversification from equities and fixed income and to provide income. Real estate investments consist of both private holdings and public securities. Private real estate investments are accessed through direct investments and commingled funds. It is the intention of the Investment Committee to transition fully to commingled funds. Private real estate is illiquid and valuation is based on annual appraisals. Public real estate securities, on the other hand, are publicly traded and marked to market daily. An allocation to public real estate securities can be made in domestic and global markets.

Private real estate is allocated among different strategies. Investments in core real estate are made through a separate account structure or through commingled funds. The investment structure for the core separate account program will consist of allocation ranges for property types and geographic regions to provide broad program diversification. Non-core strategies are accessed through commingled fund structures only.

l. Private Equity

Private equity includes investments in venture capital, buyouts, secondaries and special situations including distressed debt. Private equity is included in the asset allocation to provide further diversification and enhance expected return. This asset class has significant risk but also opportunities for high return. These assets are illiquid and valuations are not marked to market on a daily basis. Valuations for private equity investments are based on estimates of fair value in accordance with industry standards. These investments are currently made in a fund of funds structure, with the investment staff directed to advise the Investment Committee if and when more-efficient configurations are feasible and prudent.

m. Use of Derivatives

A derivative is defined as a security whose price is dependent upon or derived from one or more underlying instruments or assets. The most common underlying instruments include stocks, bonds, commodities, currencies, interest rates and market indexes. Derivatives are generally used as an instrument to hedge risk, but can also be used for speculative purposes. Derivatives are to be used for substitution, overlay, portfolio completion, risk control, diversified appreciation within specified position limits, and arbitrage but are prohibited for speculation. For this purpose, speculation does not inherently include diversified price appreciation strategies using derivatives under approved mandates by a fiduciary portfolio manager. The derivative instruments permitted include futures contracts, options, currency forward contracts, swaps, structured notes, warrants and credit default swaps.

IV. Investment Committee Implementation

1. The Investment Committee will establish procedures for the Chief Investment Officer, the investment staff and the investment consultants to implement Investment Committee decisions and ensure compliance with Investment Committee policies and guidelines.

2. Periodic Review of Asset Allocation Policy

   a. The Investment Committee will conduct periodic review of the asset allocation policy with the input of the Investment Consultant, Actuary, and staff. These reviews will be conducted at least every year with a comprehensive analysis, report, and Committee review in conjunction with actuarial assumption cycles, typically, every three years.

   b. The Chief Investment Officer will review with the Investment Committee the portfolio values and actual versus target asset allocation each month.

3. Rebalancing the Asset Allocation

   The Chief Investment Officer will monitor the asset allocation and rebalance to the approved ranges as and when necessary. Any such rebalancing will be reviewed with the Investment Committee in the subsequent monthly report. Whenever practicable, major shifts in funds will be discussed in advance with the Investment Committee.

   The Chief Investment Officer may also recommend and implement dynamic or tactical rebalancing strategies as appropriate under various market conditions, if appropriate and prudent. OCERS' normal strategic policy for rebalancing is to periodically migrate assets under management toward targets set by the Investment Policy Statement. Within the ranges established by the Committee for asset class allocation, the CIO may reallocate capital on a tactical or discretionary basis to overweight or underweight a particular manager or strategy in light of market valuations, extraordinary risks or manager underperformance, provided that these variations are consistent with previously documented House Views and/or the CIO's latest Manager Surveillance report. The CIO will report adjustments at the next meeting of the Investment Committee. Material dynamic or tactical tilts and their rationale will be well communicated, and performed after discussion with the relevant consultant(s), the CEO and, if available, the Committee Chair and Vice Chair. Unless approved by the Committee, the allocation to any given investment manager shall not be decreased or increased by more than 50% in any 12-month period as a result of such discretionary rebalancing. The CIO will present a quarterly written report to the Committee of the discretionary overweights and underweights.

4. Cash Requirements

   The Chief Investment Officer will ensure that sufficient cash is available to provide funds for benefits, expenses, and fund capital calls. The cash overlay program will allow the total plan allocation to be closer to policy unless modified or suspended by the Committee or through special actions of the CIO as provided in section 10. "Manager Watch List and Termination" subsection f) i. (c) "Extraordinary risk-reduction and liquidation protocols".

5. Manager Monitoring and Compliance

The Chief Investment Officer will monitor investment manager portfolios monthly to ensure compliance with the investment guidelines. The compliance report will be reviewed with the Investment Committee on a quarterly basis. The Manager Monitoring Subcommittee will systematically review managers on a periodic basis.

6. Derivatives Monitoring and Compliance

   The Chief Investment Officer will monitor the use of derivatives in the manager portfolios to ensure compliance with the investment guidelines. The compliance report for separate account managers will be reviewed with the Investment Committee on a quarterly basis. The CIO shall report to the Committee annually on the staff and consultants' surveillance of diversification and risk controls associated with these instruments.

   The Chief Investment Officer shall provide reports periodically (not less than quarterly) of approved currency hedge positions, and discuss their rationale and changes in strategy as appropriate.

7. Investment Cost Control

   The Chief Investment Officer will review the investment costs with the Investment Committee annually and identify opportunities for cost control or mitigation where appropriate. The Investment Committee will ensure that the investment management costs are reasonable. The use of passive management where appropriate and optimal portfolio size to minimize sliding scale fees are some of the measures used to reduce fees, while the use of performance based fees allows for better alignment of interest.

8. Performance Review

   The Investment Committee will review investment performance on a quarterly basis. The performance report will be prepared and presented by the Investment Consultant or staff using performance data calculated independently by the custodian bank. The performance review will consist of:

   a. Total fund performance relative to long-term investment performance objectives, the policy benchmark and appropriate peer groups.

   b. Asset class returns relative to benchmarks.

   c. Individual manager performance and portfolio characteristics relative to benchmarks and peer group rankings.

   d. A quarterly attribution analysis of the sources of returns for the portfolio, and the asset classes, with attribution analysis for the individual managers to be provided at least semi-annually (on a rotational basis to provide periodic focus on portfolio segments).

   e. Investment staff will review monthly performance report prepared by the custodian to ensure accuracy.

9. Manager Selection

   The Investment Committee, with the assistance of the appropriate investment consultant and investment staff will select investment managers to manage the assets of the system. The Investment Committee will authorize staff and consultant to initiate a search for a manager either to replace a manager or to fill a new mandate approved by the Investment Committee. The investment consultant and staff will conduct the search in accordance with criteria established for the search. Managers may be sourced through consultants, a CIO-prepared request for information (RFI), or an Investment Committee approved request for proposal (RFP). The search criteria will include the scope of the mandate, the investment style, benchmark, and the minimum qualifications for candidates. The minimum qualifications will include successful and generally consistent performance track record relative to benchmark, disciplined investment process, size of assets managed, experience of staff, and organizational stability. Staff may perform on-site due diligence at appropriate premises of final candidates before the Investment Committee interview for selection. The investment staff shall work with the investment consultants and legal counsel to ensure that investment contracts include an industry-accepted standard of care to which the manager is held and a fiduciary relationship between the manager and the manager's client, which may be established by contract or by operation of law (e.g., by registration of the manager as an investment adviser with the U.S. Securities and Exchange Commission).

10. Manager Watch List and Termination

a. Watch List and Termination Procedures for Publicly traded Equities, Fixed Income and Commodities, Individually managed Real Estate and Timberland, Real Estate Securities and Open-End Real Estate Commingled Funds.

Investment staff and the Investment Consultant will recommend placing an investment manager on "watch" status when (1) the manager has materially underperformed its benchmarks and peers, (2) confidence is lost in the management of a strategy; or (3) the characteristics of the portfolio no longer satisfy the desired or expected elements of the mandate. The following are a list of scenarios that would lead to a loss of confidence in a Manager:

i. Performance

Continued performance shortfalls versus a peer group of managers with a similar style and market index. Absent a compelling justification, a manager that does not remain in the upper half of the universe and lags the pre-specified benchmark over a rolling three years for three consecutive quarters will be placed on watch status.

ii. Changes in strategy or style

If the manager departs from the strategy and/or style it was originally hired to implement, such as a switch from a quantitative process to a fundamental one and/or the strategy deviates from the universe and benchmark dramatically in a manner that would not have been expected given the tracking error expectations of the particular strategy.

iii. Change in organizational structure or personnel

A significant change in culture through a merger, or acquisition or reorganization that is likely to distort incentives and promote turnover, or if there are significant departures from the investment team.

iv. Compliance

Any gross negligence, willful misconduct, investment policy violation or breach of federal and state securities laws.

v. Other

Any other reason the Investment Staff and Investment Consultant may deem necessary for a heightened review of the manager.

b. Procedures Following the Initiation of Watch Status

i. The watch period will be established for a one-year total watch duration. During this period, the manager may be removed or asked to resign if confidence or performance deteriorates materially.

ii. Within one quarter from the time a manager is placed on watch, the Investment staff and/or Investment consultant will interview the manager to determine if performance is explainable, and will continue to watch performance over the remainder of the three-quarter watch period.

iii. If at the end of the watch period, performance has improved to above-benchmark and/or above the manager median over a market cycle, the manager will be removed from the watch list.

iv. If, at the end of the watch period, the manager is underperforming either of the objectives, (in effect, four consecutive rolling time periods of non-compliance) the Investment Staff, with the assistance of the Investment consultant, will prepare a written recommendation to either: 1.) continue the manager on watch status for a specific period of time or 2.) terminate the manager.

v. An underperforming manager on watch list status shall be given the opportunity to resign with acceptable advance notice in order to avoid termination action.

c. Institute a manager termination or replacement process, this may include one or more of the following measures:

i. Temporary or permanent reduction of the allocation to the manager with the amount determined by the Investment Committee;

ii. Commencement of a search for a replacement manager;

iii. Intensive surveillance by the staff and consultant;

iv. Such other strategies and measures as the Investment Committee shall approve;

d. Watch List and Termination Procedures for Closed-End commingled funds (private equity, real estate, energy and diversified credit)

i. Unlike open-end funds and separate accounts which are more easily liquidated, closed-end commingled funds may be exited through the secondary market, but often marketability and liquidity is constrained to relatively few buyers. For these reasons, the watch list and terminating procedures used for traditional vehicles are not applicable for closed-end funds so the Chief Investment Officer and the Investment Consultant will make appropriate recommendations for exiting such positions.

e. Termination Procedures for Direct Hedge Funds, Global Asset Allocation Managers, Diversified Credit (Multi-Strategies), and other Investment Managers legally structured as hedge funds

i. Staff and consultant will monitor the managers. With the concurrence of the investment consultant, managers may be terminated by action of the Chief Investment Officer for conflicts of interests, unethical behavior or violation of investment management agreement, poor performance, style drift, operational deficiencies or turnover in personnel. Terminations and redemptions will be reviewed with the Investment Committee in the subsequent monthly report.

11. Risk Reduction Policies and Strategies

a. Cyclical liquidity reserve and portfolio risk management strategies

i. At the Committee's formal request, or when both market metrics and business cycle indicators appear to warrant a defensive cyclical approach to portfolio management, the CIO may recommend to the Committee a strategy to implement a liquidity reserve on either (1) a dynamic and systematic basis or (2) a tactical, *ad hoc* basis. The purpose of such a designated cyclical reserve should be to prudently establish sufficient liquidity as necessary and appropriate during fully priced and cresting equity markets in what appear to be late-cycle periods, to assure that cash can be timely mobilized to capitalize on potential subsequent depressed market conditions or severe market corrections when the reserve could be gainfully deployed with a long-term investment focus. In making such a recommendation, the CIO shall also present alternative or corollary strategies regarding the cash overlay program including liquid absolute-return strategies.

ii. When presenting late-cycle investment options and any specific recommendations for a liquidity reserve, the CIO shall also present to the Committee one or more alternative cyclical risk management strategies and discuss their rationale, viability and comparable advantages or disadvantages, including (a) tactical tilts of asset allocation commitments within the Policy's target bands (b) a macro portfolio overlay for specific asset classes or categories (c) use of a liquid alternative asset class such as absolute-return funds in lieu of a cash reserve and (d) any alternative strategies specifically recommended by our risk advisor or general consultant. Before approving any of these strategies, the Committee shall be informed how these various alternatives would have performed in relevant prior market cycles, how the most robust strategies would be expected to perform under various conceivable future scenarios, and the appropriate circumstances to modify, discontinue or conclude the recommended strategy.

iii. Adoption of such a strategy remains the prerogative and responsibility of the Committee after also conferring with its independent advisors, with the CIO responsible for implementation.

f. Extraordinary risk-reduction and liquidation protocols

i. When developing market events or trends present a cogent reason to exit or modify a strategy to de-risk the portfolio, the CIO, in consultation with staff, the responsible consultant, and the CEO, is authorized take the following tactical actions:

a. Currency hedges

The CIO is authorized to liquidate or reduce currency hedges when developing market events or trends present an imminent risk or reason to exit or modify a strategy.

b. Hedge funds

The CIO may liquidate, redeem or reduce a hedge fund position between meetings of the Committee if timely action is deemed to be in OCERS' best interest. A full redemption shall require the concurring opinion of the responsible consultant.

c. Cash overlay

The CIO may liquidate all or an at-risk component of the cash overlay if extraordinary market conditions would favor higher cash exposure to protect capital.

ii. Before taking such extraordinary tactical actions, the CIO is expected to confer with staff, relevant consultants, the CEO, the risk advisor and, to the extent they are reasonably accessible and such consultation can be completed on a timely basis without jeopardizing the portfolio, the Committee Chair and Vice Chair. Such actions by the CIO shall be reported as soon as reasonably practicable to the Committee Chair and Vice Chair (if prior consultation does not take place) and at the next scheduled meeting of the Investment Committee.

iii. The CIO and CEO may jointly request a special meeting of the Investment Committee if extreme market conditions or extraordinary circumstances arise that compel an inter-sessional decision, deliberation, or guidance by the Committee.

Policy Review

The Board will review this policy at least every three years to ensure that it remains relevant and appropriate.

Policy History

The Board adopted this policy on May 11, 1992. It was revised on the following dates: February 22, 2000, November 21, 2005, November 19, 2007, February 17, 2009, November 23, 2009, September 26, 2012, October 24, 2012, April 1, 2013, August 28, 2013, June 25, 2014, October 29, 2014, February 25, 2015, and June 24, 2015.

Secretary's Certificate

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

6/24/15

Steve Delaney
Secretary of the Board

Date

Total Fund Performance Benchmarks

ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Domestic Equity	15%	Russell 3000
International Developed Equity	7%	MSCI EAFE
International Small Cap	2%	MSCI EAFE Small Cap
Emerging Markets Equity	6%	MSCI Emerging Markets Equity
Global Equity	5%	MSCI World
Domestic Fixed Income	10%	BC US Universal
Global Fixed Income	0%	Citigroup World Govt. Bond Index
Emerging Market Debt	3%	65% JPMorgan GBI-EM Global Diversified un-hedged + 35% JPMorgan EM Bond Index
Diversified Credit	14%	50% ML HY Constrained/50% CS Leveraged Loan
Real Return	8%	CPI + 3%
Hedge Funds	7%	LIBOR + 5%
Global Tactical Asset Allocation (GTAA)	7%	LIBOR + 5%
Real Estate	10%	90% NCREIF ODCE/10%FTSE/EPRA NAREIT Developed Ex-US Index
Private Equity	6%	Cambridge Private Equity Lagged
Cash	0%	90-Day T-bill
	100%	

Strategic Asset Allocation

ASSET CLASS	TARGET ALLOCATION	RANGE*
Domestic Equity**	15%	12% - 18%
International Developed Equity**	7%	4% - 10%
International Small Cap Equity	2%	0% - 4%
Emerging Markets Equity	6%	4% - 8%
Global Equity	5%	3% - 7%
Domestic Fixed Income	10%	7% - 13%
Global Fixed Income	0%	
Emerging Market Debt	3%	1% - 5%
Diversified Credit	14%	9% - 17%
Real Return	8%	6% - 10%
Hedge Funds	7%	5% - 9%
GTAA	7%	5% - 9%
Real Estate	10%	8% - 12%
Private Equity	6%	4% - 8%
Cash	0%	0% - 1%
Liquidity Reserve***	0%	0% - 10%
	100%	

* Ranges for illiquid asset categories can be fulfilled by commitments that are not yet invested, so that policy compliance is fulfilled through capital commitments.

** The Investment Committee may, by majority vote, double the width of the domestic equity and international equity ranges to 9% to 21% and 1% to 13% respectively, upon the unanimous recommendation of the CIO, the general consultant and the risk advisory consultant.

*** The Liquidity Reserve has a zero strategic allocation, but can be invoked by the Committee as provided in Section 11(a).

Appendix 3

U.S. Equity Structure

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Large Core Passive	87%	Russell 1000
Small Growth Active	6.5%	Russell 2000 Growth
Small Value Active	6.5%	Russell 2000 Value
	100%	

Appendix 3A

International Equity Structure

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
EAFE Active	40%	MSCI EAFE
EAFE Index Passive	40%	MSCI EAFE
EAFE Small Cap Active	20%	MSCI EAFE Small Cap
	100%	

Emerging Markets Equity Structure

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Emerging Core/Value	42%	MSCI Emerging Markets Equity
Emerging Growth Active	41%	MSCI Emerging Markets Equity
Emerging Small Cap Active	17%	MSCI Emerging Markets Small Cap Equity
	100%	

Appendix 3B

Global Equity Structure

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Global Equity Active	100%	MSCI World
	100%	

Appendix 3C

U.S. Fixed Income Structure

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Core Passive Index	17%	Barclays Aggregate Bond Index
Core Plus Active	43%	Barclays Aggregate Bond Index
Unconstrained	40%	3 Month LIBOR
	100%	

Appendix 3D

Global Fixed Income Statement

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Global Fixed Income[1]	100%	Citigroup World Govt. Bond Index
	100%	

Emerging Market Debt Structure

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Emerging Debt (Local)	65%	JPMorgan GBI-EM Global Diversified Un-hedged
Emerging Debt (Hard)	35%	JPMorgan EM Bond Index
	100%	

[1] New targets would be established if global or international fixed income is restored in the policy. Presently this category has a zero allocation.

Diversified Credit Structure

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Multi-Strategy Credit	55%	HFRI Relative Value (Total)
US Direct Lending	15%	CS Leverage Loan Index
Mortgage/ABS	15%	3 Month LIBOR + 5%
Non-US Direct Lending	15%	75% S&P European Leverage Loan Index + 25% JACI Non-Investment Grade Corporates
	100%	

Appendix 3F

Total Real Return Structure

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Multi-Strategy Real Return	25-50%	CPI + 3%
Energy	25-50%	S&P 500 Energy Index
Other (examples below)	25-50%	
Timberland		NCREIF Timberland Index
Agriculture		NCREIF Farmland Index
Metals & Mining[1]		HFRX Commodity-Metals Index (for liquid metals only)
	100%	

[1] Metals and mining can include precious metals. Specific benchmarks would be required for mining and precious metals if such mandates are added.

Absolute Return Structure

SUB-ASSET CLASS	MAXIMUM ALLOCATION	BENCHMARK
Equity Long/Short	5-20%	HFRX Equity Hedge Index
Event Driven	20-45%	HFRX Event Driven Index
Relative Value Long/Short Credit	5-20%	HFRX Relative Value Index
Relative Value Excluding Long/Short Credit	0-25%	HFRX Relative Value Index
Tactical Trading	10-40%	HFRX Macro Index
Multi-Strategy	0-25%	HFRX Global Hedge Index
	100%	

GTAA Structure

SUB-ASSET CLASS	TARGET ALLOCATION	BENCHMARK
Global Tactical Allocation	100%	LIBOR + 5%
	100%	

Appendix 3H

Total Real Estate Structure

STYLE	TARGET RANGE	BENCHMARK
Core	≥ 50%	NCREIF ODCE
Non-Core	0% to 50%	NCREIF ODCE
Public Securities	0% to 15%	FTSE/EPRA NAREIT Developed Ex-US Index

PROPERTY TYPE	TARGET RANGE	
Apartment	0% - 40 %	
Office	0% - 40 %	
Industrial	0% - 40 %	
Retail	0% - 40 %	
Hotel	0% - 15 %	
Land	0% - 15 %	
Other	0% - 15 %	

GEOGRAPHY	TARGET RANGE	
East	0% - 40 %	
Midwest	0% - 40 %	
South	0% - 40 %	
West	0% - 40 %	
International	0% - 20 %	