

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
SUPPLEMENTAL INCOME PLANS
CalPERS RISK-BASED AND TARGET RETIREMENT DATE FUNDS**

~~October 15, 2012~~ November 13, 2012

This Policy is effective upon adoption and supersedes all previous Supplemental Income Plans CalPERS Risk-Based and Target Retirement Date Funds policies.

I. PURPOSE

The California Public Employees' Retirement System ("CalPERS") Total Fund Statement of Investment Policy, adopted by the CalPERS Investment Committee ("Committee"), sets forth CalPERS overarching investment purposes and objectives with respect to all its investment programs. This document sets forth the investment policy ("Policy") for the CalPERS Supplemental Income Plans ("SIP") Risk-Based Asset Allocation Funds and Target Retirement Date Asset Allocation Funds, Asset Allocation Funds Strategy ("Program"). The design of this policy ensures that investors, managers, consultants, and other participants selected by CalPERS take prudent and careful action while managing the Program. Additionally, use of this policy assures sufficient flexibility in managing investment [risks](#) and [returns](#) associated with this Program.

The Program furthers these goals by establishing [asset class allocation](#) targets and ranges, and managing asset class allocations within their policy ranges. For the [Target Retirement Date Funds](#) the asset class allocations are designed to change over time according to a pre-determined [glidepath](#).

II. STRATEGIC OBJECTIVE

The investment options offered in the CalPERS SIP Risk-Based Asset Allocation and Target Retirement Date Asset Allocation Funds will be broadly diversified to minimize the effect of short-term losses within any mix of investments self-directed by [participants](#). The objective of these funds, in combination with defined benefit pension income and possibly social security, is to help participants achieve retirement adequacy. The Program shall further these objectives by seeking to accomplish the following:

- A. Recommend asset allocation policies with targets and ranges based on a periodic assessment of estimated participant information such as: retirement objectives, demographics, other retirement assets and risk tolerances.

- B. Offer asset allocation funds that achieve the highest rate of total return reasonably possible within prudent levels of risk and [liquidity](#).
- C. Maintain sufficient [diversification](#) to avoid large losses and preserve capital.
- D. Ensure that the asset class policy ranges approved by the Committee are adhered to, and that any [rebalancing](#) is performed efficiently and prudently.

III. RESPONSIBILITIES

- A. In addition to the Committee's responsibilities outlined in the SIP Statement of Investment Policy, the Committee is also responsible for approving asset classes for investment and approving a policy target allocation, permissible range, and [benchmark](#) for each asset class.
- B. CalPERS Investment Staff ("Staff") is responsible for the following:
 - 1. All aspects of portfolio management including monitoring, analyzing, and evaluating performance relative to the appropriate benchmark.
 - 2. Managing CalPERS asset class allocations within policy ranges approved by the Committee, in accordance with Policy guidelines.
 - 3. Reporting to the Committee annually and more frequently if needed about Program allocations, returns, risks, and activity.
 - 4. Monitoring the implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of Policies at the next Committee meeting, or sooner if deemed necessary. These reports shall include explanations of any violations and appropriate recommendations for corrective action.
 - 5. Providing recommendations to the Committee concerning the identification of asset classes and selection of asset class benchmarks, policy targets and ranges.
- C. The [General Pension Consultant](#) ("Consultant") is responsible for:

Monitoring, evaluating, and reporting periodically, to the Committee, on the performance of the Program relative to the appropriate benchmark and Policy.

- D. Internal and External Manager(s) (“Manager(s)”) are responsible for aspects of portfolio management as set forth in their respective investment management contracts, guidelines or policies and shall fulfill the following duties:
1. Communicate with staff as needed regarding investment strategy and investment results.
 2. Manage to the objectives of each fund.
 3. Monitor, analyze, and evaluate performance relative to the agreed upon benchmark.
 4. Cooperate fully with Staff, SIP’s custodian, the Third Party Administrator and the consultant concerning requests for information.

IV. PERFORMANCE OBJECTIVE AND BENCHMARK

The benchmark for the Supplemental Income Plans CalPERS Risk-Based and Target Retirement Date Funds is specified in the Benchmarks Policy.

The objective is for the funds to outperform the appropriate benchmark and perform above the universe median.

V. INVESTMENT APPROACHES AND PARAMETERS

- A. The Program asset classes and policy benchmarks are specified in the Benchmarks Policy.
- B. Asset Class Policy Targets and Ranges
 1. The policy asset class targets and permissible ranges for the Risk-Based Funds are shown below.

Fund	Global Equity		US Fixed Income		TIPs		Commodities		REITs		Expected Return	Expected Risk
	Target	Range	Target	Range	Target	Range	Target	Range	Target	Range		
Aggressive	85.0%	±6%	5.0%	±2%	0.0%	±0%	5.0%	±2%	5.0%	±2%	8.8%	14.5%
Moderate	60.0%	±5%	28.0%	±5%	5.0%	±2%	4.0%	±2%	3.0%	±1%	7.7%	10.4%
Conservative	30.0%	±5%	53.0%	±5%	15.0%	±4%	2.0%	±1%	0.0%	±0%	6.2%	5.4%

2. The policy asset class targets and permissible ranges for the Target Retirement Date Funds are shown in the glidepath below. ~~Initial asset class targets were assigned to each fund at inception based on an expected retirement age determined by actuarial data.~~ Each Fund has asset allocation targets based on an expected retirement year (e.g. the 2050 Fund has an 85% target allocation to

Global Equity in 2012 based on an expected retirement year of 2050). The Funds' ~~asset class~~allocation targets are adjusted annually by moving each Fund to the ~~asset class targets~~asset allocation one row down in the glidepath table, ~~according to reference years indicated on the table.~~ When a Fund's ~~asset class targets~~asset allocation reaches those of the Income Fund, the Fund will be closed and participants in the Fund will be mapped to the Income Fund. Participants may self-select funds either based on their ~~age/expected~~retirement date or based on their individual asset allocation preference. If no selection is made, the participant assets will be defaulted based on the participant age with an assumed retirement age of 59. Funds were built and assigned with an initial retirement age of 59, based on CalPERS member demographic data.

Target Retirement Date Funds Glidepath

Year*	Target Retirement Date Fund	Global Equity		US Fixed Income		TIPS		Commodities		REITs		Expected Return	Expected Risk
		Target	Range	Target	Range	Target	Range	Target	Range	Target	Range		
2012	2050	85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2013		85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2014		85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2015		85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2016		85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2012	2045	85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2013		85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2014		85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2015		85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2016		85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2012	2040	85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2013		85.0%	± 6%	5.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.8%	14.5%
2014		84.0%	± 6%	6.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.7%	14.3%
2015		83.0%	± 6%	7.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.7%	14.1%
2016		82.0%	± 6%	8.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.6%	13.9%
2012	2035	81.0%	± 6%	9.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.6%	13.7%
2013		79.0%	± 6%	11.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.5%	13.4%
2014		77.0%	± 6%	13.0%	± 2%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.5%	13.2%
2015		75.0%	± 6%	15.0%	± 5%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.4%	13.0%
2016		74.0%	± 6%	16.0%	± 5%	0.0%	-	5.0%	± 2%	5.0%	± 2%	8.3%	12.8%
2012	2030	72.0%	± 6%	17.0%	± 5%	1.0%	± 1%	5.0%	± 2%	5.0%	± 2%	8.2%	12.6%
2013		71.0%	± 5%	19.0%	± 5%	1.0%	± 1%	5.0%	± 2%	4.0%	± 2%	8.1%	12.3%
2014		70.0%	± 5%	20.0%	± 5%	1.0%	± 1%	5.0%	± 2%	4.0%	± 2%	8.1%	12.0%
2015		68.0%	± 5%	22.0%	± 5%	1.0%	± 1%	5.0%	± 2%	4.0%	± 2%	8.0%	11.8%
2016		66.0%	± 5%	23.0%	± 5%	2.0%	± 1%	5.0%	± 2%	4.0%	± 2%	7.9%	11.6%
2012	2025	64.0%	± 5%	24.0%	± 5%	3.0%	± 1%	5.0%	± 2%	4.0%	± 2%	7.9%	11.4%
2013		63.0%	± 5%	26.0%	± 5%	3.0%	± 1%	4.0%	± 2%	4.0%	± 2%	7.8%	11.1%
2014		61.0%	± 5%	28.0%	± 5%	4.0%	± 2%	4.0%	± 2%	3.0%	± 1%	7.8%	10.7%
2015		59.0%	± 5%	29.0%	± 5%	5.0%	± 2%	4.0%	± 2%	3.0%	± 1%	7.7%	10.3%
2016		57.0%	± 5%	30.0%	± 5%	6.0%	± 2%	4.0%	± 2%	3.0%	± 1%	7.6%	9.9%
2012	2020	55.0%	± 5%	31.0%	± 5%	7.0%	± 2%	4.0%	± 2%	3.0%	± 1%	7.5%	9.5%
2013		54.0%	± 5%	32.0%	± 5%	8.0%	± 2%	3.0%	± 2%	3.0%	± 1%	7.4%	9.3%
2014		53.0%	± 5%	32.0%	± 5%	9.0%	± 3%	3.0%	± 2%	3.0%	± 1%	7.4%	9.1%
2015		52.0%	± 5%	32.0%	± 5%	10.0%	± 3%	3.0%	± 2%	3.0%	± 1%	7.3%	8.8%
2016		50.0%	± 5%	33.0%	± 5%	11.0%	± 3%	3.0%	± 2%	3.0%	± 1%	7.2%	8.5%
2012	2015	48.0%	± 5%	34.0%	± 5%	12.0%	± 3%	3.0%	± 2%	3.0%	± 1%	7.1%	8.3%
2013		47.0%	± 5%	35.0%	± 5%	13.0%	± 3%	2.0%	± 1%	3.0%	± 1%	7.0%	8.1%
2014		46.0%	± 5%	36.0%	± 5%	14.0%	± 3%	2.0%	± 1%	2.0%	± 1%	7.0%	7.9%
2015		45.0%	± 5%	36.0%	± 5%	15.0%	± 4%	2.0%	± 1%	2.0%	± 1%	6.9%	7.7%
2016		44.0%	± 5%	37.0%	± 5%	15.0%	± 4%	2.0%	± 1%	2.0%	± 1%	6.9%	7.5%
2012	2010	43.0%	± 5%	37.0%	± 5%	16.0%	± 4%	2.0%	± 1%	2.0%	± 1%	6.8%	7.4%
2013		42.0%	± 5%	38.0%	± 5%	16.0%	± 4%	2.0%	± 1%	2.0%	± 1%	6.8%	7.3%
2014		40.0%	± 5%	40.0%	± 5%	16.0%	± 4%	2.0%	± 1%	2.0%	± 1%	6.7%	7.0%
2015		39.0%	± 5%	43.0%	± 5%	16.0%	± 4%	2.0%	± 1%	0.0%	-	6.7%	6.8%
2016		37.0%	± 5%	45.0%	± 5%	16.0%	± 4%	2.0%	± 1%	0.0%	-	6.6%	6.6%
2012	2005	35.0%	± 5%	47.0%	± 5%	16.0%	± 4%	2.0%	± 1%	0.0%	-	6.6%	6.4%
2013		33.0%	± 5%	49.0%	± 5%	16.0%	± 4%	2.0%	± 1%	0.0%	-	6.5%	6.2%
2014		31.0%	± 5%	51.0%	± 5%	16.0%	± 4%	2.0%	± 1%	0.0%	-	6.4%	6.0%
2015		30.0%	± 5%	52.0%	± 5%	16.0%	± 4%	2.0%	± 1%	0.0%	-	6.3%	5.7%
2016		30.0%	± 5%	53.0%	± 5%	15.0%	± 4%	2.0%	± 1%	0.0%	-	6.2%	5.4%
Target Income Fund (target allocation remains constant)		30.0%	± 5%	53.0%	± 5%	15.0%	± 4%	2.0%	± 1%	0.0%	-	6.2%	5.4%

* Asset allocations become effective on October 1 of each year.

C. Asset Allocation Fund Design Process

1. A comprehensive design analysis shall be completed for each asset allocation fund at least once every three years and will be presented to the Committee for review and approval of policy asset allocation targets and ranges. The [Chief Investment Officer](#) (“CIO”) may recommend a more frequent analysis of asset allocation targets and ranges if expected returns, risks or estimated participant characteristics have substantially changed since the prior analysis. Additionally, the Program shall be reviewed by Staff at least annually to ensure that all assumptions used in establishing the Program continue to be reasonable. The CIO may also recommend to the Committee changes in the policy targets and ranges. A target for cash is exempt from consideration.
2. The Program analyses shall also encompass the expected long-term capital markets outlook and expected inflation.
 - a. Analyses shall identify suitable asset classes in accordance with Section V.D., and consider asset class expected returns, volatilities, and correlations.
 - b. Analyses shall determine a suitable glidepath for the Target Date Retirement Funds taking into consideration the estimated participant characteristics.
 - c. Analyses of alternative asset allocation strategies shall measure the estimated effect on expected risk and return, diversification, and likelihood of meeting participant retirement objectives.
 - d. The Committee shall approve policy asset allocation targets and ranges expressed as a percentage of total assets. The Committee shall set policy ranges sufficiently wide to permit efficient and flexible implementation, yet sufficiently narrow to maintain the basic risk and return relationship established by the allocation targets.

D. Asset Class Criteria

A financial or real asset type shall be considered as an asset class if it has a risk, return, and correlation profile sufficiently different from existing CalPERS asset classes, and if its inclusion or exclusion materially affects the expected risk and return of the SIP Program.

1. Criteria for consideration when evaluating an asset class shall include the following:
 - a. Sufficient size, liquidity, and cost efficiency to permit CalPERS SIP to invest meaningful amounts in that asset class, and have a material effect on CalPERS SIP return.
 - b. Availability of sufficient internal or external investment and technical expertise to ensure prudent implementation of an investment in that asset class.
 - c. Presence of diversification, return enhancement, liquidity provision, or some other readily identifiable attribute sufficiently different from other asset classes and which enhances CalPERS SIP ability to achieve the strategic objectives outlined in Section II.
 - d. Acceptance by other large pension plan sponsors as a feasible and meaningful asset class, or in the absence of such acceptance, academic support for its inclusion.
 - e. Availability of sufficient data, history, or expertise to assess the feasibility and benefit of the asset class to CalPERS SIP, by means of a measurable investment outcome. Further, the asset class must have a basis for developing expected investment returns, risks, and correlations for the purposes of the financial study.
2. The Committee may approve an asset class for investment provided it meets the above criteria.
3. Once CalPERS approves an asset class for investment, as part of the Program, the investment may only be made in accordance with a policy reviewed and approved by the Committee for that asset class. Such a policy shall specify the investment guidelines and provide for the monitoring of that asset class.

VI. INVESTMENT APPROACHES AND PARAMETERS - IMPLEMENTATION

A. Philosophy and Approach

The funds shall be managed in accordance with the approved Policy or Policies governing each asset class. Such policies shall specify the method and parameters for implementation and provide for the ongoing monitoring of that asset class.

B. Funds Structure/Parameters

Staff shall manage each fund in accordance with the approved strategic asset allocation. In order to increase the investment opportunities, selected internally managed funds shall be made available for investment in the form of [pooled funds](#). CalPERS Custodian shall employ a [unitized fund structure](#) to maintain separate and distinct historical records and to produce individual [net asset values](#) (“NAV’s”).

C. Rebalancing

Asset class allocations shall be managed to be within policy ranges. Allocations may temporarily exceed policy ranges due to extreme market [volatility](#) or due to changing allocations established for a particular fund. In this case, the asset allocation will be returned to within its policy range in a timely manner, with the exact time period dependent upon transaction costs and liquidity.

D. Restrictions, Prohibitions and Authorized Securities

Restrictions, prohibitions and authorized securities of the Fund are defined in the Policy governing each asset class.

VII. CALCULATIONS AND COMPUTATIONS

Investors, managers, consultants, and other participants selected by CalPERS SIP shall make all calculations and computations on a market value basis as recorded by CalPERS SIP Custodian.

VIII. GLOSSARY OF TERMS

Key words used in the policy are defined in CalPERS Master Glossary of Terms.

Approved by the Policy Subcommittee:	June 16, 2008
Adopted by the Investment Committee:	August 18, 2008
Technical Revision to Reflect Benchmark Name Change:	December 15, 2008
Revised by the Policy Subcommittee:	February 17, 2009
Approved by the Investment Committee:	March 16, 2009
Admin changes due to Policy Review Project:	June 16, 2009
Admin changes due to adoption of Benchmark Policy:	September 28, 2009
Approved by the Investment Committee:	October 15, 2012
Approved by the Investment Committee:	November 13, 2012

Asset Class Glossary: Asset Allocation
Policy: Supplemental Income Plans CalPERS Risk-Based and Target Retirement
Date Funds

~~October 15, 2012~~ November 13, 2012

Asset Class Allocation

The net long market value of all non-derivative securities plus the net long futures-equivalent notional value of all derivatives.

Benchmark

A set of securities with associated weights that provides a passive representation of a market segment. A benchmark's return is often used as a comparative measure of a manager's performance results in an active portfolio.

Chief Investment Officer

Heads the CalPERS Investment Office and works with the Investment Committee to develop a long-term investment policy and asset allocation strategy for the Public Employees Retirement Fund.

Diversification

Investing in multiple assets to avoid or reduce the exposure to any one source of risk.

General Pension Consultant

An individual or organization that provides specialized professional assistance to the Investment Committee in determining the pension fund's asset allocation model or optimal combination of investments in order to maximize risk-adjusted investment returns in a manner consistent with the State's long-term pension liabilities.

Glidepath

The pre-determined asset mix and asset allocation for a series of Target Date Retirement Funds. The glidepath automatically adjusts the asset allocation each year to achieve the appropriate risk and return for each stage of a participant's life.

Liquidity

The ability to quickly convert a particular investment into cash at a low transaction cost.

Net Asset Value - NAV

The Net Asset Value or NAV is a term used to describe the value of an entity's assets less the value of its liabilities.

Participant

A person that takes part in, or contributes to, one of the CalPERS Supplemental Income Plans.

Pooled Funds

Funds from many individual investors that are aggregated for the purposes of investment, as in the case of a mutual or pension fund. Investors in pooled fund investments benefit from economies of scale, which allow for lower trading costs per dollar of investment, diversification and professional money management.

Rebalancing

The movement of portfolio asset class exposures closer to policy target weightings, generally resulting in a reduction in active (benchmark-relative) risk.

Return

A measure of the total performance of an investment over a designated time period. The return calculation for private equity is typically based on the internal rate of return, net of all fees and expenses.

Risk

A measurable probability of losing or not gaining value. Risk is differentiated from uncertainty, which is not measurable. Risk in this context is also referred to as standard deviation, which is a statistical measure of the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution.

Target Retirement Date Funds

A series of diversified funds each of which has a pre-determined asset mix and allocation that will vary over time until and often into retirement. This dynamic asset allocation, or glidepath, is designed to reduce the level of risk as the participant approaches retirement. The target date refers to the date the participant reaches retirement age.

Unitized Fund Structure

Unitized Fund Structure allows multiple participants to contribute to a pool of assets while maintaining historical records and producing individual Net Asset Values (NAVs) for each participant. ~~Each participant's share in the portfolio is separately accounted for using a system that accounts for each class of shares' proportional entitlement to the portfolio's Total Net Assets. The system maintains all of the funds' holdings at the fund level, and maintains the fund prices at the class level.~~

Volatility

Expected or historical annualized standard deviation of returns. Returns can be total returns or the differential returns between a portfolio and its benchmark.