Agenda Item 5b

November 18, 2013

ITEM NAME: Adoption of Global Derivatives and Counterparty Risk Policy and Repeal of Legacy Policies

PROGRAM: Total Fund

ITEM TYPE: Policy & Delegation – Action

RECOMMENDATION

Adopt the Global Derivatives and Counterparty Risk Policy (Policy) as shown in Attachment 1 and repeal the legacy derivatives policies as shown in Attachments 2 and 3. The list of additional policies that will be updated through the administrative change process, to reflect the repeal of the legacy derivatives policies and the adoption of the new Policy, is provided as Attachment 4. The Wilshire Associates consultant opinion letter is provided as Attachment 5.

EXECUTIVE SUMMARY

The Policy was presented to the Investment Committee (IC) for initial review on October 14, 2013. The Policy includes one change based on feedback from the initial review by the IC. In the *Purpose* section of the Policy, staff have included reference to the recently adopted CalPERS Investment Beliefs Policy. Changes made to the Policy based on the IC's feedback are denoted with yellow highlighting in Attachment 1.

Staff seeks approval of the Policy to ensure that CalPERS has effective operational, risk management and compliance controls when using derivatives within the investment process. Additionally, the new Policy consolidates and replaces two legacy derivatives policies and requires adjustments to asset class policy language where reference is made to the legacy derivatives policies or where the new Policy language now supersedes existing language. Upon approval of the new Policy staff will update any affected policies through the administrative change process.

STRATEGIC PLAN

This agenda item supports the CalPERS Strategic Plan goal to improve long-term pension and health benefit sustainability. The adoption of a clear and unified Policy will enhance CalPERS ability to achieve the System's investment objectives.

INVESTMENT BELIEFS
This agenda item supports the following CalPERS Investment Beliefs:

Investment Belief 9: Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error

- CalPERS shall develop a broad set of investment and actuarial risk measures and clear processes for managing risk

Investment Belief 10: Strong processes and teamwork and deep resources are needed to achieve CalPERS goals and objectives.

- CalPERS will be best positioned for success if it:
    - Has strong governance
    - Operates with effective, clear processes

BACKGROUND
The purpose of the Derivatives Central Clearing and Processing Target Operating Model initiative (Initiative) was to establish capabilities needed within the Investment Office (INVO) to implement central clearing mandated by Dodd Frank and improve policies and procedures associated with derivatives trading. As a part of the Initiative, INVO formally established a Derivatives Committee comprised of senior staff to provide ongoing oversight of derivatives and derivatives strategies. Derivatives Committee members are selected based on their senior oversight responsibilities and subject matter expertise with derivatives.

A specific responsibility outlined in the Derivatives Committee Charter is the "creation, management, and maintenance of the Global Derivatives Policy framework." The development of the new Policy constitutes an important step in establishing the Derivatives Committee as the owner of the derivatives policy framework and creation of any new derivatives policies and procedures thereunder. The new Policy was developed by Derivatives Committee members including representation from Absolute Return Strategies, Global Equity, Global Fixed Income, Investment Compliance and Operational Risk, Investment Servicing Division and Risk Management.

ANALYSIS
The new Policy was designed from the outset to support the following goals:

1. Provide an overarching framework for how derivatives should be monitored and managed within INVO.
2. Merge the existing Development of Derivatives Strategies and Derivatives – External Money Managers policies into one policy inclusive of all means of implementation (i.e., Internal Management, Externally Managed under Investment Manager Agreements and Limited Liability Entity investments).
3. Provide for inclusion and oversight of the Affiliate Funds within the new Policy.

4. Enhance and clarify responsibilities for a counterparty risk process that is measured and managed jointly across asset classes and inclusive of external manager exposures.
5. Remove procedural language contained in the existing derivatives policies.
6. Align the new Policy with regulatory requirements under the Dodd Frank Act.

The new Policy accomplishes these goals and sets a solid foundation to allow INVO to adapt to any future derivatives regulations or changes in investment strategies.

BUDGET AND FISCAL IMPACTS
Not Applicable

BENEFITS/RISKS
The new Policy is designed to reduce operational, compliance and regulatory risk by establishing a consolidated governance and procedural framework for monitoring and managing derivatives across INVO. The Policy formalizes the role and responsibilities of the Derivatives Committee in providing oversight to the use of derivatives across INVO. In addition, the Policy positions CalPERS to be in alignment with Dodd Frank requirements and creates a process for evaluating and elevating potential issues and matters that are likely to impact derivatives markets to the Investment Strategy Group and Operating Committee.

If the Policy is not adopted, INVO staff would be required to continue with a status quo derivatives governance framework that is fragmented and does not acknowledge the current tempo of regulatory changes in the derivatives market.

ATTACHMENTS
Attachment 1 – Proposed Global Derivatives and Counterparty Risk Policy
Attachment 2 – Black-lined Development of Derivatives Strategies Policy
Attachment 3 – Black-lined Derivatives – External Money Managers Policy
Attachment 4 – List of additional policies to be updated through the administrative change process
Attachment 5 – Wilshire Associates Opinion Letter

ERIC BAGGESEN
Senior Investment Officer
Asset Allocation/Risk Management

JOSEPH A. DEAR
Chief Investment Officer

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY

FOR
GLOBAL DERIVATIVES AND COUNTERPARTY RISK

~~October 14, 2013~~**November 18, 2013**

This policy is effective immediately upon adoption and supersedes all previous Derivatives policies.

I. PURPOSE

The California Public Employees' Retirement System ("CalPERS") Investment Beliefs Policy and 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 Global Derivatives and Counterparty Risk. The design of this Policy ensures that investors, managers, consultants or other participants selected by CalPERS take prudent and careful action while managing the Policy. Additionally, use of this Policy assures sufficient flexibility in managing investment risk and returns associated with this Policy.

The Policy is intended to provide a strategic framework for governance of the use of derivatives and derivatives strategies by the CalPERS Investment Office across both internally and externally managed portfolios. The policy is intended to ensure that CalPERS has effective operational, risk management and compliance controls when using derivatives within the investment process.

II. STRATEGIC OBJECTIVE

The strategic objective of this Policy is to outline the issues that must be addressed for each derivatives strategy, whether internally or externally managed, in regard to guidelines, development of procedures and operational requirements.

III. POLICY SCOPE

A. Benefit Plans/Trusts Covered under the Policy

This Policy applies to the use of derivatives by CalPERS within the following Defined Benefit, Health Care and Defined Contribution Benefit Plans/Trusts:

1. Public Employees' Retirement Fund ("PERF")

2. Legislators' Retirement System ("LRS")

3. Judges' Retirement System I ("JRS I")

4. Judges' Retirement System II ("JRS II")

5. Long Term Care ("LTC") Fund

6. Health Care Fund ("HCF")

7. Contingency Reserve Fund ("CRF")

8. California Employers' Retiree Benefit Trust ("CERBT") Fund

9. Supplemental Income Program Defined Contribution ("SIP DC") Funds

    a. CalPERS 457

    b. State Peace Officers' and Firefighters Supplemental Plans ("POFF")

    c. Supplemental Contribution Program ("SCP")

    d. Placer County 457/401K

B. All sections of this Policy shall apply to the use of derivatives by Investment Staff ("Staff") and external managers ("Managers") operating under Investment Management Agreements (IMAs).

C. The following shall apply to application of the Policy for investments through Registered/Commingled Funds or private investments made through Limited Liability Entities only:

1. Staff must exercise thorough due diligence in assessing the scope of each Limited Liability Entity or Registered/Commingled Fund Manager's use of derivatives, their purpose, experience of the fund Manager's staff in managing these positions, inherent leverage and the Manager's systems, controls and operations in determining appropriateness of these entities for CalPERS investment.

2. Staff shall evaluate periodically (no less than annually) for any changes in the use of derivatives at each Limited Liability Entity or Registered/Commingled Fund to reaffirm the appropriateness of these investments at inception.

3. Limited Liability Entity or Registered/Commingled Fund managers may be required to provide information to Staff on derivatives trading activities within each entity in order for CalPERS to comply with applicable aggregation or position limit regulations and reporting requirements.

IV. RESPONSIBILITIES

A. Staff is responsible for the following:

1. Monitor the implementation of and compliance with the Policy including due diligence and oversight of derivatives activities by External Managers, Limited Liability Entities, or Registered/Commingled Fund vehicles.

2. Monitor derivatives and counterparty risk exposures.

3. Immediately report concerns, problems, material changes and all violations of Guidelines and Policies at the next Committee meeting, or sooner if deemed necessary. These reports shall include explanations of the violations and appropriate recommendations for corrective action.

4. Evaluate the use of derivatives across CalPERS to ensure the appropriate investment risk controls are in place.

5. Develop internal guidelines and procedures for the use, control and compliance of derivatives.

6. Provide input to the Derivatives and Counterparty Risk Committee regarding the content and guidelines contained in the Policy and the Investment Office Derivatives and Counterparty Risk Procedures Manual.

7. Use derivative products in a prudent manner in line with established policies, procedures and guidelines.

B. The Investment Office Derivatives and Counterparty Risk Committee is responsible for the following:

1. Act as a standing committee to provide oversight on the use of derivatives and counterparty risk by CalPERS Investment Office including the development and approval of the Investment Office Derivatives and Counterparty Risk Procedures Manual.

2. Provide updates and guidance to the Operating Committee and the Investment Strategy Group regarding policy issues and matters that are likely to have a significant impact on derivatives markets and the implementation of derivatives strategies within the Investment Office.

C. The General Board Consultant (“Consultant”) is responsible for monitoring, evaluating and reporting periodically to the Committee on the performance of portfolios to ensure that any derivative use does not have a long-term harmful effect on the portfolio.

D. The External Manager is responsible for all aspects of portfolio management as set forth in each External Manager’s IMA with CalPERS and shall fulfill the following duties:

1. Operate under IMAs.

2. Communicate with Staff as needed regarding investment strategy and investment results.

3. Cooperate fully with CalPERS Staff, Custodian and General Board Consultant concerning requests for information.

V. PERFORMANCE OBJECTIVE AND BENCHMARK

Not Applicable.

VI. INVESTMENT APPROACHES AND PARAMETERS

A. Derivatives Terminology

A derivative is broadly defined as a financial instrument whose value, usefulness and marketability, is derived from or linked to the value of an underlying security, commodity, or index that represents either direct ownership of an asset or the direct obligation of an issuer, otherwise known as the cash market instrument.

Generally, there are five main categories of derivatives identified by the assets from which they are derived:

1. Currency derivatives
2. Interest rate derivatives
3. Credit derivatives
4. Commodity derivatives
5. Equity derivatives

A derivative position can be expressed using a number of different financial instruments, each of which has a unique regulatory, risk and documentation context:

1. A futures contract
2. A cleared derivative
3. An over-the-counter ("OTC") derivative
4. A hybrid instrument that embeds a derivative in a debt instrument

Derivatives under this Policy include, without limitation:

1. Futures contracts
2. Options
3. Options on futures contracts
4. Forward contracts
5. Swap agreements
6. Security based swap agreements
7. Swap contracts with embedded options
8. Instruments or contracts intended to manage transaction or currency exchange risk in purchasing, selling or holding investments.

Spot Foreign Exchange transactions with settlement date up to T+5 shall be exempt from this Policy.

Cash transactions in any asset class are not derivatives. Derivatives, as defined in this Policy, shall not be construed to include a broad range of securities, such as Collateralized Mortgage Obligations (CMOs) and convertible bonds.

B. Derivatives Application Permitted

Derivatives may be used to efficiently manage the Total Fund portfolio or individual sub portfolios risk and return characteristics.

C. Derivatives Application Not Permitted

Derivative applications may only be used to invest in asset classes that are consistent with CalPERS Total Fund Statement of Investment Policy and Asset Allocation Strategy Policy asset categories, implementation strategies, and risk-return characteristics.

D. Derivatives Control Procedures

Staff shall adopt documented control procedures that cover the following areas:

1. Accounting and Performance measurement for derivatives.

2. Risk Management – procedures for evaluating the use of derivatives and monitoring market risk exposure, liquidity needs, and counterparty risk limits.

3. Operational Risk – procedures that establish a process for evaluating operational activities associated with derivatives to ensure the use of proper systems, controls, staffing, and staff qualifications.

4. Regulatory Compliance – procedures for ensuring compliance with any regulations in conjunction with derivatives activities undertaken by CalPERS.

E. Derivatives Risk Limitations

Staff should reference the Investment Office Derivatives and Counterparty Risk Procedures Manual, Asset Allocation Strategy Policy, Leverage Policy and asset class investment policies for additional limitations specific to their portfolios inclusive of cash and derivatives instruments.

Managers should reference their IMA including Investment Guidelines for risk limitations specific to their portfolio or to the asset class or trust for which they are managing investments.

VII. CALCULATIONS AND COMPUTATIONS

Not Applicable

VIII. GLOSSARY OF TERMS

There are no Master Glossary of Terms contained in this Policy.

Adopted by the Investment Committee November 18, 2013

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

~~FOR~~
~~DEVELOPMENT OF DERIVATIVES STRATEGIES~~

~~August 17, 2009~~

~~This policy is effective immediately upon adoption and supersedes all previous Derivatives - Investment Office policies.~~

~~I.PURPOSE~~

~~The 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 policy for the use of each derivative strategy in the CalPERS Investment Office in order to understand and manage the risk attendant in the use of derivatives across CalPERS various portfolios~~

~~II.STRATEGIC OBJECTIVE~~

~~The strategic objective of this Policy is to outline the issues that must be addressed for each new derivatives strategy, whether internally or externally managed, in regard to guidelines and operational requirements.~~

~~III.RESPONSIBILITIES~~

~~A. CalPERS Investment Staff ("Staff") is responsible for the following:~~

~~Monitoring the implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of Policies to the Committee. These reports shall include explanations of the violations and appropriate recommendations for corrective action.~~

~~B. The **General Pension Consultant** ("Consultant") is responsible for evaluating Derivatives Guidelines to ensure that the necessary issues are addressed.~~

~~IV.PERFORMANCE OBJECTIVE AND BENCHMARK~~

~~Not applicable.~~

~~V. DEFINITION~~

~~A derivative is broadly defined as a financial instrument whose value, usefulness and marketability, is derived from or linked to the value of an underlying security, commodity, or index that represents either direct ownership of an asset or the direct obligation of an issuer, otherwise known as the cash market instrument. For the purpose of this Policy, a narrow definition of a derivative is used. It shall include only the following components:~~

~~A. Futures,~~

~~B. Forwards,~~

~~C. Swaps,~~

~~D. Structured Notes, and,~~

~~E. All forms of options.~~

~~In the case of derivatives based on market indices, the instruments shall be based on mainstream indices as opposed to those carrying CalPERS customization (e.g. ex tobacco, principles-based investment in emerging markets, etc.). This is due to several reasons, as follows:~~

~~A.Credit risk: only mainstream contracts are exchange-traded, meaning that in order to apply customization, an over-the-counter (OTC) contract would be necessary (which exposes both parties to counterparty credit risk).~~

~~B.Liquidity risk: OTC contracts tend to be much less liquid than exchange traded contracts, requiring any revisions to the position to be negotiated directly with the counterparty as opposed to traded through an exchange.~~

~~C.Operational complexity: Unlike exchange-traded derivatives, which are very simple in their trading and accounting mechanisms, OTC derivatives are much more complex, requiring specific terms and contracts and are neither traded nor accounted for according to standard protocols.~~

~~D.Competitiveness / Pricing: In the derivatives marketplace, customizations undermine the desirability of CalPERS as a counterparty, increasing pricing and/or reducing the value extracted from the derivatives position.~~

~~As a result, while CalPERS will not directly hold securities that are screened out due to customization, CalPERS will carry the exposure to such securities through the standardized derivatives instruments.~~

~~Derivatives, as defined in this Policy, shall not be construed to include a broad range of securities, such as Collateralized Mortgage Obligations (CMOS) and convertible bonds.~~

~~VI. GUIDELINES~~

~~Notional leverage, as defined for the Global Equity program, in the Statement of Investment Policy for Leverage, shall be constrained to 10% of the value of Global Equity assets.~~

~~Implementing Derivatives Guidelines shall be written to cover each derivative strategy in CalPERS Investment Office. At a minimum, implementing Derivatives Guidelines shall address the following:~~

~~A. The purpose of the derivative strategy.~~

~~B. Justification for the use of derivatives.~~

~~C. Description of the risks inherent in the strategy and how they shall be managed. At a minimum, the descriptions shall include pricing risk, liquidity risk, and legal risk.~~

~~D. An appropriate risk analysis and monitoring capabilities for any derivative strategy implemented.~~

~~E. Implementing Derivatives Guidelines shall address the amount of leverage employed under the strategy, the prudent reasons for employing leverage, and the definition of leverage specific to the strategy, shall be consistent with any Investment Office-wide leverage policy.~~

~~F. Acceptable limits on overall exposure to be achieved through derivatives.~~

~~G. Criteria by which the use of counter parties is considered acceptable.~~

~~H. Procedures for monitoring and managing the derivative exposure relative to the strategy including protocol for prompt reporting of violations of limits or other policy requirements.~~

~~I. Prohibited uses of derivatives and general restrictions on their use.~~

~~J. Provide for periodic staff review, at least annually, of the Derivatives Guidelines, specifically addressing the risks and assumptions it contains.~~

~~VII. OPERATIONAL REQUIREMENTS~~

~~To minimize operational risks, CalPERS Investment Office shall establish the following criteria to support the use of derivatives:~~

~~A. A documented procedure in the operations manual for the involvement of and oversight of derivatives activity by the Senior Investment Officer of the appropriate investment unit.~~

~~B. A risk management function that shall track the aggregation of risk across CalPERS various portfolios, including derivative use.~~

~~1. The risk management function shall be separated from the portfolio management function, ensuring proper risk management of derivatives use, counter party exposure, and exposure to leverage.~~

~~2. The risk management function and all derivatives use shall at all times comply with the requirements of any risk audit function which oversees CalPERS Investment Office.~~

~~C. Sufficient and experienced back office support with sufficient technology and systems for handling confirmations, payment, margin levels, and accounting and reporting of derivative use.~~

~~D. Derivative Guidelines shall also have operational procedures that address:~~

~~1. Accounting and valuation procedures of derivatives, including mark-to-market procedures.~~

~~2. Reconciliation procedures for cash and margin positions with the master custodian bank.~~

~~3. Staff duties and responsibilities, including the separation of duties and responsibilities for those authorized to use derivatives.~~

~~4. Reports concerning violations of the operational procedures of each specific guideline along with the resolution or the recommended remedy or sanction.~~

~~VIII. CALCULATIONS AND COMPUTATIONS~~

~~Not applicable.~~

~~IX. GLOSSARY OF TERMS~~

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

~~Derivatives – Investment Office~~
~~Approved by the Policy Subcommittee: March 24, 2000~~
~~Adopted by the Investment Committee: May 15, 2000~~
~~Revised by the Policy Subcommittee: December 10, 2004~~
~~Approved by the Investment Committee: February 14, 2005~~

~~Name changed to Development of Derivatives Strategies~~
~~Revised by the Policy Subcommittee: October 12, 2007~~
~~Approved by the Investment Committee: November 13, 2007~~
~~Revised by the Policy Subcommittee: October 20, 2008~~
~~Approved by the Investment Committee: November 17, 2008~~
~~Revised by the Policy Subcommittee: June 15, 2009~~
~~Approved by the Investment Committee: August 17, 2009~~

~~Asset Class Glossary: Investment & Risk Management Policy: Development of Derivatives Strategies~~

~~Cash Market~~
~~The physical market for a deliverable instrument or commodity.~~

~~Collateralized Mortgage Obligation~~
~~A mortgage-backed security that pools together mortgages and separates the cash flows into short, medium, and long classes (often called tranches), allowing a wider range of risk and return characteristics than in the more homogeneous pass-through market.~~

~~Convertible Bond~~
~~A bond that has a provision that permits conversion to the issuer's stock at some fixed ratio.~~

~~Counter Party~~
~~The entity which is in the opposing position to a transaction.~~

~~Forward Contract (Forwards)~~
~~An instrument that allows the purchase or sale of a specific quantity of a commodity, government security, foreign currency, or other financial instrument at the current price, with delivery and settlement at a specified future date.~~

~~Futures~~
~~Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.~~

~~Leverage~~
~~A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).~~

~~Margin~~
~~Collateral representing a portion of the notional amount of a transaction specified by the exchange clearing the transaction or the counter-party to the transaction.~~

~~Mark to Market~~
~~A method of determining the value of securities by applying current trading prices of similar or identical securities to the securities being valued.~~

~~Option~~
~~Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.~~

~~Structured Note~~

~~An instrument representing a financial obligation created by modifying one or more standard financial obligations or instruments (i.e., a bond or mortgage) to create a risk/return profile or cash flow payment stream. This type of risk or return profile differs from the standard financial instrument from which it derives.~~

~~Swap~~
~~Private agreement between two companies to exchange cash flows in the future according to a prearranged formula.~~

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

~~**FOR**~~
~~**DERIVATIVES – EXTERNAL MONEY MANAGERS**~~

~~**November 13, 2007**~~

~~*This Policy is effective immediately upon adoption and supersedes all previous Derivatives - External Money Managers policies.*~~

~~I. PURPOSE~~

~~The 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 permitted circumstances, parameters, and requirements for the use of Investment Derivatives by External Money Managers ("Program"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("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 the use of derivatives.~~

~~II. STRATEGIC OBJECTIVE~~

~~Facilitating risk management while managing the cost of investing in publicly-traded stocks and bonds is the strategic objective of this Policy. The growth of derivatives worldwide facilitates the investment process. For the purposes of this document a "derivative" is broadly defined as a financial instrument whose value, usefulness and marketability, is derived from or linked to the value of an underlying security, commodity, or index that represents either direct ownership of an asset or the direct obligation of an issuer, otherwise known as the cash market instrument.~~

~~CalPERS retains external domestic and international money management firms ("Managers") for the express purpose of investing in publicly-traded stocks and bonds. CalPERS is a long-term investor; therefore, Managers shall manage assets for the generation of long-term gains from investments, principally in cash market positions, stocks, and bonds. However, as a significant global institutional investor, CalPERS is positioned for taking advantage of derivatives to ensure the overall investment performance objective is achieved.~~

~~III. RESPONSIBILITIES~~

~~A. CalPERS Investment Staff ("Staff") is responsible for the following:~~

~~1. Reviewing written policies and procedures of the Managers concerning derivative use;~~

~~2. Monitoring the investment performance results of the Managers to ensure that any derivative use does not have a long-term deleterious effect on the Portfolio; and~~

~~3. Monitoring the implementation of, and compliance with, the Policy. Staff shall monitor reports from the Managers and the CalPERS Custodian at least quarterly to ensure derivative use is in compliance with this Policy. Staff shall report concerns, problems, material changes, and all violations of Guidelines and Policies immediately and in writing to the Committee. These reports shall include explanations of any violations and appropriate recommendations for corrective action.~~

~~B. The General Pension Consultant is responsible for:~~

~~Monitoring, evaluating, and reporting periodically to the Committee on the performance of the Managers' portfolios to ensure that any derivative use does not have a long-term deleterious effect on the Portfolio.~~

~~C. The External Manager ("Manager") is responsible for aspects of portfolio management as set forth in each Manager's contract with CalPERS and shall fulfill the following duties:~~

~~1. The execution of derivatives transactions under this Policy, subject to Section V.B.6 of this document. If the Manager does not comply with this Policy, CalPERS prohibits its use of derivatives. Nothing in this Policy supersedes the Managers' legal obligations to CalPERS contained in its investment management contracts;~~

~~2. Cooperate fully with CalPERS Staff, Custodian, and General Pension Consultant concerning requests for information; and~~

~~3. Comply with all pertinent CalPERS policies.~~

~~IV. PERFORMANCE OBJECTIVE AND BENCHMARK~~

~~Not applicable.~~

~~V. INVESTMENT APPROACHES AND PARAMETERS~~

~~A. Derivative Approaches~~

~~Of the approaches described below, only substitution, risk control and arbitrage are permitted; speculation is prohibited.~~

~~1. Permitted:~~

~~a. **Substitution:** When the characteristics of the derivative sufficiently parallel those of the cash market instrument, the derivative may be substituted on a short-term basis for the cash market instrument, or on a longer-term basis to avoid withholding taxes. This approach is particularly useful when investing cash flow or liquidating investments, as the derivative can be used to manage more precisely the market entry and exit points.~~

~~b. **Risk Control**: When characteristics of the derivative instrument sufficiently parallel those of the cash market instrument, an opposite position in the derivative can be taken from the cash market instrument to alter the exposure to or the risk (volatility) of the cash instrument. This approach is useful to manage risk without having to sell the cash instrument. Sometimes referred to as "hedging", the use of derivatives in this context means that there is at least a 95% correlation in price movement between the cash market or instrument and derivative instrument over a rolling three-year period. For currency overlay Managers, the 95% correlation refers to the correlation between the proxy basket of currencies and the underlying portfolio.~~

~~c. **Arbitrage:** The simultaneous purchase and sale of two instruments for the purpose of capturing a pricing disparity between them. This usually takes place due to different markets, exchanges or instruments. This is only permissible when expressly stated by individual program investment policy and Manager guidelines.~~

~~2. Prohibited:~~

~~**Speculation:** An assumption of risk in anticipation of a gain but recognizing a higher than average possibility of loss. The goal of every program should be the attainment of the best risk adjusted returns for the portfolio.~~

~~B. General Requirements and Restrictions~~

~~1. Each external Manager shall prepare, maintain, and periodically review a written derivatives policy that describes the following information:~~

~~a. Specifies the philosophy and prescribed use of derivatives for client accounts;~~

~~b. Establishes limits to derivatives exposure within a client account expressed in terms of percentage of notional amount of derivatives exposure as a percent of market value;~~

~~c. Establishes a standard of care concerning the following areas:~~

~~(1) Back office and systems capabilities;~~

~~(2) Internal audit and review of derivatives use;~~

~~(3) Separation of responsibilities;~~

~~(4) Senior management supervision;~~

~~(5) The required expertise of those permitted to engage in the use of derivatives; and~~

~~(6) The authority of those permitted to use derivatives.~~

~~d. Establishes and describes the following criteria:~~

~~(1) The accounting and valuation procedures in the use of derivatives;~~

~~(2) The counter-party exposure credit limit policy;~~

~~(3) The value-at-risk analysis regarding the impact to a client's portfolio caused by the use of derivatives;~~

~~(4) Reconciliation procedures with the client's master custodian bank;~~

~~(5) Reporting requirements to clients; and~~

~~(6) The frequency of the policy review and the names of individuals conducting the review.~~

~~e. Establishes and describes the monitoring procedures for the following issues:~~

~~(1) Policy implementation; and~~

~~(2) Risk exposures~~

~~f. Describes the compensation of traders, portfolio managers, and other individuals involved in the use of derivatives to avoid inappropriate, fraudulent, or non-compliant behavior; and~~

~~g. Specifies the periodic review of the written derivatives policy.~~

~~2. Managers shall mark-to-market derivative positions daily.~~

~~3. Managers shall use a daily pricing source for valuing derivative positions.~~

~~4. Managers shall reconcile daily cash and margin positions with CalPERS master custodian bank.~~

~~5. Any derivative transaction, which results in the leveraging of the portfolio, is prohibited, unless expressly permitted by individual program investment policy and Manager guidelines.~~

~~6. Only the Managers' investment guidelines can confer authorization to use derivatives, which is included as part of its contract with CalPERS. If derivative use is authorized, then this Policy applies.~~

7. ~~Any derivative transaction, or any action concerning derivatives not expressly permitted in this Policy, is prohibited unless singularly approved by CalPERS Chief Investment Officer or his or her designee. Managers shall request approval for any policy exception from the Staff, who will seek the appropriate determination.~~

8. ~~Each Manager shall make available to CalPERS Chief Investment Officer or his or her designee, copies of any policy regarding derivatives it maintains which is applicable to the management of CalPERS account, including those policies required by this Policy.~~

9. ~~Managers shall perform a cost/benefit analysis concerning a derivatives transaction before it is undertaken and shall make that analysis available to CalPERS Staff upon request. Forward currency transactions are exempt from this requirement.~~

10. ~~While the use of options is permitted as expressed, there may be times when simultaneous, but opposing options positions may be taken by a Manager. An example of this occurs when a call option is written so that the premium income received is then used to finance the purchase of a put option. When the Manager explicitly demonstrates in writing that these simultaneous transactions result in a risk controlling or cost controlling impact to CalPERS portfolio, then they will be permitted. However, these transactions will be closely monitored to ensure that the Manager is not engaging in excessive derivative transactions, which are in conflict with CalPERS long-term investment objectives.~~

C. ~~Types of Risks~~

1. ~~**Market Risk** - Managers shall have systems, procedures, and, if necessary, models to assess the market-related risks to the price behavior of the derivative instruments held in the portfolio, and the impact of market-related risk on the value of the portfolio managed for CalPERS.~~

2. ~~**Credit Risk** - Managers shall have available for inspection credit policies which are applicable to their derivative use. Credit risk analysis must assess the current replacement cost of the transaction of a counter-party default and estimate the replacement cost if the counter-party were to default at some future point during the derivatives exposure period.~~

~~3. **Liquidity Risk** - To minimize liquidity risk, the potential derivatives transaction shall be reviewed and supported by at least three market makers.~~

~~4. **Cash Flow Risk** - To minimize the cash flow requirements of CalPERS, especially in the currency overlay program, Managers shall make use of master netting agreements and have systems in place to monitor when unrealized losses exceed unrealized gains in connection with derivatives transactions.~~

~~5. **Basis Risk** - To minimize basis risk, the price movement correlation of the derivative and the underlying cash market or instrument which represents the deliverable instrument must be at least 95% over a rolling three-year period. For currency overlay Managers, the 95% correlation refers to the correlation between the proxy basket of currencies and the underlying portfolio.~~

~~6. **Legal Risk** - To minimize legal risk, Managers are prohibited from engaging in derivative transactions where such transactions are unenforceable under the laws of the governing jurisdiction. Managers are required to maintain sufficient documentation to enable enforceability of a claim arising from a derivatives transaction and may only engage in derivative transactions when there exists sufficient authority or capacity to do so. Where reasonable, Managers at their own expense shall engage appropriate legal counsel expert in the laws of the governing jurisdiction to protect the interests of CalPERS in the use of derivatives.~~

~~7. **Settlement Risk** - To minimize settlement risk, master payment netting agreements shall be used where feasible and enforceable for payments in the same currency. Cross currency settlement risk shall be minimized by avoiding the use of spot and short-dated forward trades simultaneously.~~

~~8. **Operational Risk** - To minimize operational risk, Managers shall have sufficient internal controls to minimize derivative losses due to errors or omissions. These internal controls shall include the following:~~

~~a. Oversight of informed and involved senior management.~~

~~b. Documentation of policies and procedures, listing approved activities and establishing limits and exceptions, credit controls and management reports.~~

~~c. An independent risk management function, separate from the portfolio management function, or appropriate checks and balances to ensure proper risk management.~~

~~d. Independent internal and external audits to verify adherence to the firm's policies and procedures.~~

~~e. Back office support with sufficient technology and systems for handling confirmations, documentation, payment, margin levels and accounting and reporting.~~

~~f. A system of independent checks and balances throughout the derivative transaction process from initiation of trade to final settlement.~~

~~D. Counter-Party Requirements~~

~~1. Each Manager shall prepare, maintain, and periodically review a counter-party credit policy for non-exchange-traded derivatives, meeting the following standards:~~

~~a. Outlines acceptable credit standards a counter-party must meet.~~

~~b. Outlines how a counter-party will be evaluated against those standards.~~

~~c. Specifies the individuals within the firm responsible for evaluating counter-party creditworthiness.~~

~~d. Specifies a list of approved counter-parties with credit exposure limits.~~

~~e. Outlines the frequency of review of counter-parties for the approved list.~~

~~f. Outlines procedures for enforcing the counter-party credit policy.~~

~~g. Provides for the independent audit of credit policy procedures to ensure compliance.~~

~~h. Requires the separation of trading (dealing) activity responsibilities from credit approval and review responsibilities and provides for a separate risk management function within the firm, or an appropriate sets of checks and balances to ensure proper risk management.~~

~~i. Outlines restrictions against the use of counter-parties requiring credit enhancement to establish acceptable creditworthiness.~~

~~j. Outlines appropriate internal reporting and control requirements for the management of counter-party risk exposure.~~

~~k. Provides for the contracting entity's chief executive oversight.~~

~~l. Specifies periodic review of the written counter-party credit policy.~~

~~2. Counter-party creditworthiness shall equal an "investment grade" of "A3" as defined by Moody's Investor Service or "A-" by Standard & Poor's. The use of counter-parties holding a split rating with one of the ratings below A3/A- is prohibited. Managers shall notify CalPERS if a counter-party is downgraded below A3/A- while an instrument held in the portfolio is outstanding with that counter-party. The use of unrated counter-parties is prohibited.~~

~~3. Non-exchange traded derivatives or individual counter-party exposure, including CalPERS Custodian, are limited to 33% of the notional amount of the derivative exposure of the portfolio being managed for CalPERS. An exception is allowed if total derivative exposure in the portfolio is less than $100 million. Where netting agreements approved by the CalPERS Chief Investment Officer or his or her authorized designee are in place with the counter-party, only the net amount applies toward the $100 million limit.~~

~~4. Any entity acting as a counter-party shall be regulated in either the United States or the United Kingdom.~~

~~5. The Manager shall, where applicable and enforceable, use master agreements permitting the netting of counter-party exposures to minimize credit risk.~~

~~6. CalPERS Chief Investment Officer or his or her designee may request an adjustment of the counter-party exposure, as CalPERS manages its overall counter-party exposure.~~

~~7. Managers are prohibited from "name washing" where credit guarantees extend to another party or parties, regardless of which party holds a higher rating.~~

~~E. Permitted and Restricted Instruments~~

~~The derivative market is evolving and new derivatives are created constantly. Rather than list each derivative, classes of derivatives will be described below, and **may only be used by Managers with guideline authority to do so.** A list of specifically approved derivative instruments shall be contained in the Staff operations manual.~~

~~1. **Futures Contracts** - Stock index futures, bond futures and currency futures contracts which are Commodities and Futures Trading Commission (CFTC)-approved are permitted when the Manager has permission to invest in the underlying or deliverable cash market instrument.~~

~~2. **Options** - Stock index options, options on stocks and bonds, options on futures and currency options are permitted for use by Managers who have permission to invest in the underlying or deliverable cash market instrument or whose mandate is to overlay a designated portfolio of deliverable cash market instruments.~~

~~3. **Currency Forward Contracts** - Currency forward contracts are permitted for use by Managers who have permission to invest in the underlying or deliverable cash market instrument or whose mandate is to overlay a designated portfolio of deliverable cash market instruments. FX transactions may occur between foreign currencies (cross currencies) when made in anticipation of future sales or purchases of securities or when consistent with the Manager's currency management guidelines.~~

~~4. **Swaps** - Swaps which provide for the receipt of the rate of return of the permitted cash market instrument are allowed.~~

~~5. **Structured Notes** - Structured notes (including, but not limited to,~~

~~inverse floaters) and mortgages are not considered derivatives for the purposes of this Policy, and are prohibited, unless expressly permitted by the Manager's investment guidelines included in its contract with CalPERS.~~

~~6. **Warrants** - Purchasing warrants separately is prohibited; however, warrants are permitted when attached to securities authorized for investment.~~

~~7. **Credit Default Swaps** -The purchase and sale of single issuer and basket/index credit default swaps are permitted for use by Managers, if expressly permitted in the Manager's investment guidelines included in its contract with CalPERS. High yield credit default swaps may not be used to create a net short position for a single issuer.~~

~~F. Listing Requirements~~

~~Derivatives, which are futures contracts, shall be CFTC-approved and exchange-traded. Options may either be exchange-traded or traded over-the-counter (OTC). If traded over-the-counter, then Managers shall strictly adhere to the counter-party guidelines.~~

~~G. Criteria for New Derivatives~~

~~Use of any new derivative shall only occur upon written authorization of CalPERS Chief Investment Officer or his or her authorized designee. New derivatives subject the investor to three types of risk:~~

~~1. Objective pricing risk;~~

~~2. Legal risk; and~~

~~3. Liquidity risk.~~

~~Before use of a new derivative, at least three market makers shall review and support it. The three market makers shall have adequate capitalization, exemplary reputations in the marketplace, and creditworthiness equivalent to "investment grade" of "A3" as defined by Moody's Investor Service or "A-" by Standard & Poor's. The benefits of three market makers include competitive pricing, a minimum number of market participants to create "commonly accepted practices and requirements" for a new derivative, and a minimum degree of liquidity to support institutional use. The derivative must be linked to a pre-existing permissible cash market or instrument, which can be used for delivery.~~

~~H. Reporting Requirements~~

~~Managers shall prepare a monthly report for CalPERS outlining the following information:~~

1. ~~The derivatives and the counter-parties used and the market value, cost-value, gain or loss, notional exposure, and amount of exposure;~~

2. ~~A description of the strategy and expected outcome of the derivative use; and~~

3. ~~The quantified impact to the portfolio.~~

~~VI. CALCULATIONS AND COMPUTATIONS~~

~~Investors, managers, consultants, and other participants selected by CalPERS shall make all calculations and computations on a market value basis as recorded by CalPERS custodian. Managers shall comply at all times with the operational requirements of CalPERS and its Custodian.~~

~~VII. GLOSSARY OF TERMS~~

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

~~Approved by the Policy Subcommittee:~~	~~December 6, 1996~~
~~Adopted by the Investment Committee:~~	~~December 16, 1996~~
~~Revised by the Policy Subcommittee:~~	~~December 10, 2004~~
~~Approved by the Investment Committee:~~	~~February 14, 2005~~
~~Revised by the Policy Subcommittee:~~	~~April 13, 2007~~
~~Approved by the Investment Committee:~~	~~May 14, 2007~~
~~Revised by the Policy Subcommittee:~~	~~October 12, 2007~~
~~Approved by the Investment Committee:~~	~~November 13, 2007~~
~~Administrative changes made due to Policy Review Project:~~	~~June 16, 2009~~

~~Asset Class Glossary: Investment & Risk Management Policy: Derivatives - External Money Managers~~

~~Arbitrage~~
~~The simultaneous purchase and sale of two instruments for the purpose of capturing a pricing disparity between them. The instruments do not need correlated price movements.~~

~~Basis Risk~~
~~The risk caused by a deviation in the price spread between two related instruments or markets.~~

~~Call Option~~
~~An instrument conveying the right, but not the obligation, to buy a deliverable instrument at a specified price.~~

~~Cash Market~~
~~The physical market for a deliverable instrument or commodity.~~

~~Commodities and Futures Trading Commission (CFTC)~~
~~An agency of the U.S. federal government that regulates the U.S. commodity futures and options markets. The CFTC is responsible for insuring market integrity and protecting market participants against manipulation, abusive trading practices, and fraud.~~

~~Counter Party~~
~~The entity which is in the opposing position to a transaction.~~

~~Custodian~~
~~A bank or other financial institution that provides custody of stock certificates and other assets of an institutional investor.~~

~~Derivative~~
~~An instrument whose value is based on the performance of an underlying financial asset, index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, swaps, and options on futures.~~

~~Forward Contract (Forwards)~~
~~An instrument that allows the purchase or sale of a specific quantity of a commodity, government security, foreign currency, or other financial instrument at the current price, with delivery and settlement at a specified future date.~~

~~Futures~~
~~Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.~~

~~**Hedge (Hedging)**~~
~~A strategy used to offset investment risk. A perfect hedge is one eliminating the possibility of future gain or loss.~~

~~**Leverage**~~
~~A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).~~

~~**Margin**~~
~~Collateral representing a portion of the notional amount of a transaction specified by the exchange clearing the transaction or the counter-party to the transaction.~~

~~**Mark to Market**~~
~~A method of determining the value of securities by applying current trading prices of similar or identical securities to the securities being valued.~~

~~**Master Agreement**~~
~~One agreement covering the terms, conditions, and settlement of several transactions.~~

~~**Netting**~~
~~The process by which a single payment obligation is derived from numerous sums owed between two parties.~~

~~**Option**~~
~~Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.~~

~~**Over-the-Counter (OTC)**~~
~~The market for securities and traded products that are not listed on the major exchanges. OTC options are options with negotiated premium, strike price, and expiration date.~~

~~**Premium**~~
~~The cost paid or revenue received for an option.~~

~~**Put Option**~~
~~An instrument conveying the right, but not the obligation to sell a deliverable instrument at a specified price.~~

~~**Speculation**~~
~~Assumption of risk in anticipation of gain but recognizing a higher than average possibility of loss.~~

~~**Spot Market**~~
~~Commodities market in which goods are sold for cash and delivered immediately.~~

~~**Structured Note**~~
~~An instrument representing a financial obligation created by modifying one or more standard financial obligations or instruments (i.e., a bond or mortgage) to create a risk/return profile or cash flow payment stream. This type of risk or return profile differs from the standard financial instrument from which it derives.~~

~~**Swap**~~
~~Private agreement between two companies to exchange cash flows in the future according to a prearranged formula.~~

LIST OF ADDITIONAL POLICIES TO BE UPDATED THROUGH ADMINISTRATIVE PROCESS

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Inflation Assets	Attachment A (Commodities Program), Section D. 1., and Section E.2.	Strike section D.1. ~~Counterparty creditworthiness, for non-exchange traded derivatives, shall be at a minimum of "A3" as defined by Moody's Investor Service, "A-" by Standard & Poor's and "A-" by Fitch. The use of counterparties holding a split rating with one of the ratings below A3/A- is prohibited. The use of unrated counterparties is prohibited unless the counterparty is a wholly owned affiliate of a parent company that unconditionally guarantees payment and meets the above credit standards.~~ Strike Section E.2. ~~**Legal risk** will be minimized by engaging in over-the-counter (OTC) derivative transactions only where such transactions are enforceable under the laws of the governing jurisdiction and will be governed by an International Swaps and Derivatives Association, Inc. (ISDA) agreement where applicable.~~
Statement of Investment Policy for Inflation Assets	Attachment B (Inflation Linked Bond Program), Section V.A.,	Strike paragraph under Section V.A. ~~Derivatives with risk and return characteristics substantially similar to bonds or bond indices included in the Program benchmark are permitted. Any use of derivatives shall be in compliance with the CalPERS Derivatives Investment Policy as stated in Section IX of the CalPERS Dollar-Denominated Fixed Income Program Policy.~~

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Barclays Aggregate Program	Section VI.A. and VI.C.	Adjust first paragraph under section VI.A. to the following: All transactions involving derivatives and leverage are governed by CalPERS Statement of Investment Policy for ~~Development of Derivatives Strategies~~ Global Derivatives and Counterparty Risk ("Derivatives and Counterparty Risk Policy"). In addition to the restrictions defined in the Derivatives and Counterparty Risk Policy, the following conditions apply: Strike section VI.C. ~~C. **Counterparty Exposure for Options, Swaps and Futures**~~ ~~1.~~ ~~The greater of $500 million or 25% of the total notional derivative exposure can be maintained with any one counterparty for non-exchange-traded derivatives (e.g., swaps, caps, floors, and options).~~ ~~1.~~ ~~Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. who have a short-term debt rating by at least two of the following three rating agencies:~~ ~~A1 (S&P) and P1 (Moody's), or F1 (Fitch Ratings), or rated on a long-term basis A3 (Moody's) A- (S&P), or A- (Fitch Ratings Services). The internal research staff shall actively review these brokers.~~
Statement of Investment Policy for Currency Overlay Program	Attachment B (Externally Managed Currency Overlay Program), Section III.B.2.a	Insert the following in place of the language under Section III.B.2.a: Statement of Investment Policy for Global Derivatives and Counterparty Risk; and,
Statement of Investment Policy for Currency Overlay Program	Attachment B (Externally Managed Currency Overlay Program), Section IV.B.	Strike Section VI.B. of Attachment B ~~B. **Counterparty Exposure for Forwards, Options, and Swaps**~~ ~~1. The greater of $500 million or 25% of the total notional derivative exposure can be maintained with any one counterparty for non-exchange traded derivatives.~~ ~~2. Transactions shall be executed with counterparties rated A- (S&P), or A- (Fitch) or A3 (Moody's) or higher by at least 1 of 3 rating agencies.~~

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Currency Overlay Program	Attachment C (Internally Managed Passive Currency Overlay Program), Section II.B.7.a, and Section III.B.	Insert the following in place of the language under Section II.B.7.a: Statement of Investment Policy for Global Derivatives and Counterparty Risk; and, Strike Section III.B. of Attachment C ~~B. **Counterparty Exposure for Forwards, Options, and Swaps**~~ ~~1. The greater of $500 million or 25% of the total notional derivative exposure can be maintained with any one counterparty for non-exchange traded derivatives.~~ ~~2. Transactions shall be executed with counterparties rated A- (S&P), or A- (Fitch) or A3 (Moody's) or higher by at least 1 of 3 rating agencies.~~
Statement of Investment Policy for Currency Overlay Program	Attachment D (Internally Managed Active Currency Overlay Program) Section III.B.	Strike Section III.B. of Attachment D ~~B. **Counterparty Exposure for Forwards, Options, and Swaps**~~ ~~1. The greater of $500 million or 25% of the total notional derivative exposure can be maintained with any one counterparty for non-exchange traded derivatives.~~ ~~2. Transactions shall be executed with counterparties rated A- (S&P), or A- (Fitch) or A3 (Moody's) or higher by at least 1 of 3 rating agencies~~

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Low Duration Fixed Income Program	Attachment A1 (High Quality Libor Program), Section II.D.3., Section IV., and Section IV.C.	Strike and insert the following in Section II.D.3. of Attachment A1: 3. Repurchase Agreements and Tri-Party Repurchase Agreements (repos and tri-party repos) collateralized at 102% by debt obligations of the U.S. Government or its agencies (this does not include mortgage-backed securities). Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by A3/A- or higher rated corporate debt or AAA structured securities or commercial paper with a minimum A1/P1 rating. Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by common stock of companies included in one of the following indices: Nasdaq composite, Russell 3000, or the S&P 500. Individual common stock concentration is limited to 5% per issuer. Repurchase agreements and Tri-Party Repurchase agreements must be marked-to-market daily. ~~Repurchase agreements and Tri-Party Repurchase agreements must be with counterparties rated at least A1/P1.~~ Mortgage-backed securities are prohibited. Collateral for Tri-party repurchase agreements must be a minimum of $1 million in size. Guidelines for Eligible Repo Counterparties can be found ~~in Attachment A3~~ in the Statement of Investment Policy for Global Derivatives and Counterparty Risk. Adjust first paragraph Section IV. to the following: All transactions involving derivatives and leverage are governed by CalPERS Statement of Investment Policy for ~~Development of Derivatives Strategies~~ Global Derivatives and Counterparty Risk. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the HQL Program. Strike Section IV.C. ~~Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 (S&P) and at least P1 (Moody's), or rated on a long-term at least A3 (Moody's) and at least A- (S&P). CalPERS internal research staff shall actively review these brokers.~~

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Low Duration Fixed Income Program	Attachment A2 (Short Duration Program), Section II.D.3. , Section IV., and Section IV.C.	Strike and insert the following in Section II.D.3. of Attachment A1: 3. Repurchase Agreements and Tri-Party Repurchase Agreements (repos and tri-party repos) collateralized at 102% by debt obligations of the U.S. Government or its agencies (this does not include mortgage-backed securities). Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by A3/A- or higher rated corporate debt or AAA structured securities or commercial paper with a minimum A1/P1 rating. Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by common stock of companies included in one of the following indices: Nasdaq composite, Russell 3000, or the S&P 500. Individual common stock concentration is limited to 5% per issuer. Repurchase agreements and Tri-Party Repurchase agreements must be marked-to-market daily. ~~Repurchase agreements and Tri-Party Repurchase agreements must be with counterparties rated at least A1/P1.~~ Mortgage-backed securities are prohibited. Collateral for Tri-party repurchase agreements must be a minimum of $1 million in size. Guidelines for Eligible Repo Counterparties can be found ~~in Attachment A3~~ in the Statement of Investment Policy for Global Derivatives and Counterparty Risk. Adjust first paragraph Section IV. to the following: All transactions involving derivatives and leverage are governed by CalPERS Statement of Investment Policy for ~~Development of Derivatives Strategies~~ Global Derivatives and Counterparty Risk. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the HQL Program. Strike Section IV.C. ~~Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 (S&P) and at least P1 (Moody's), or rated on a long-term at least A3 (Moody's) and at least A- (S&P). CalPERS internal research staff shall actively review these brokers.~~

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Low Duration Fixed Income Program	Attachment A3 (Limited Liquidity Enhanced Return Program), Section IV. and Section IV.C.	Adjust first paragraph Section IV. to the following: All transactions involving derivatives and leverage are governed by CalPERS Statement of Investment Policy for ~~Development of Derivatives Strategies~~ Global Derivatives Strategies and Counterparty Risk. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the HQL Program. Strike Section IV.C. ~~Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 (S&P) and at least P1 (Moody's), or rated on a long-term at least A3 (Moody's) and at least A- (S&P). CalPERS internal research staff shall actively review these brokers.~~

<table>
<tr><th>POLICY</th><th>SECTION</th><th>LANGUAGE ADJUSTMENT</th></tr>
<tr>
<td>Statement of Investment Policy for Low Duration Fixed Income Program</td>
<td>Attachment A4 (Eligible Repo Counterparties)</td>
<td>Strike the entire A4 Attachment:

~~ELIGIBLE REPO COUNTERPARTIES~~
~~Effective September 14, 2006~~
~~Repo counterparties may include the following:~~
~~1. Any bank or broker/dealer explicitly rated A1/P1/F1 by at least two of the three rating agencies. In the case of split ratings, measure against the lowest of the three ratings.~~
~~2. Any bank branch whose parent is rated A1/P1/F1 (by at least two out of the three agencies).~~
~~3. Any subsidiary of a parent entity rated A1/P1/F1 carrying a guarantee of the parent.~~
~~4. If an entity is not explicitly rated, is not a bank branch, and does not carry a parental guaranty, then the entity must be a Primary Government Securities Dealer (as listed on the Federal Reserve Bank of New York's Primary Dealer List located at: http://www.ny.frb.org/markets/pridealers_current.html),~~
~~and~~
~~The parent entity must be rated A1/P1/F1 by two of the three rating agencies.~~
~~In all cases, ratings must be issued by two out of the three agencies; in the case of split ratings, measure against the lowest of the three ratings.~~

~~SPECIFIC REPO COUNTERPARTIES~~
<table>
<tr><th>~~Eligible Counterparties include the names listed below. These may be amended at any time provided they comply with above guidelines.~~ **~~Explicit Rating~~**</th><th>**~~Primary Dealer~~**</th><th></th><th>**~~Parent Rating~~**</th></tr>
<tr><td>~~Banc of America Securities, LLC.~~</td><td>~~A1+/P1~~</td><td>~~Yes~~</td><td>~~A1+/P-1~~</td></tr>
<tr><td>~~Barclays Capital Inc.~~</td><td>~~No~~</td><td>~~Yes~~</td><td>~~A1+/P1~~</td></tr>
<tr><td>~~BNP Paribas Securities Corp.~~</td><td>~~No~~</td><td>~~Yes~~</td><td>~~A1+/P-1~~</td></tr>
<tr><td>~~Citigroup Global Markets Inc.~~</td><td>~~A1+/P1~~</td><td>~~Yes~~</td><td>~~A1+/P-1~~</td></tr>
<tr><td>~~Credit Suisse Securities (USA) LLC~~</td><td>~~No~~</td><td>~~Yes~~</td><td>~~A1+/P1~~</td></tr>
<tr><td>~~Deutsche Bank Securities Inc.~~</td><td>~~P1~~</td><td>~~Yes~~</td><td>~~A1+/P-1~~</td></tr>
<tr><td>~~Dresdner Kleinwort Wasserstein Securities LLC~~</td><td>~~No~~</td><td>~~Yes~~</td><td>~~A-1/P-1~~</td></tr>
<tr><td>~~Goldman, Sachs & Company~~</td><td>~~A1+/P-1~~</td><td>~~Yes~~</td><td>~~A-1+/P1~~</td></tr>
<tr><td>~~HSBC Securities (USA) Inc.~~</td><td>~~No~~</td><td>~~Yes~~</td><td>~~A-1+/P1~~</td></tr>
<tr><td>~~JP Morgan Securities Inc.~~</td><td>~~No~~</td><td>~~Yes~~</td><td>~~A-1+/P1~~</td></tr>
<tr><td>~~Merrill Lynch Government Securities Inc.~~</td><td>~~No~~</td><td>~~Yes~~</td><td>~~A1/P1~~</td></tr>
<tr><td>~~Morgan Stanley & Co. Incorporated~~</td><td>~~No~~</td><td>~~Yes~~</td><td>~~A1+*/P1~~</td></tr>
<tr><td>~~RBS/Greenwich Capital Markets, Inc.~~</td><td>~~No~~</td><td>~~Yes~~</td><td>~~A1+/P-1~~</td></tr>
<tr><td>~~UBS Securities LLC~~</td><td>~~A1+~~</td><td>~~Yes~~</td><td>~~A1+/P-1~~</td></tr>
</table>
~~As of December 15, 2008~~
~~*Morgan Stanley S&P A-1+ rating is on negative watch~~
</td>
</tr>
</table>

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Global Fixed Income Program	Attachment A (Dollar Denominated Fixed Income Program), Section III.A. and Section III.C.	Adjust the first paragraph in Section III.A. to the following: All transactions involving derivatives and leverage are governed by CalPERS Statement of Investment Policy for ~~Development of Derivatives Strategies or CalPERS Statement of Investment Policy for Derivative-External Money Managers (collectively "Derivatives Policies").~~ Global Derivatives and Counterparty Risk. In addition to the restrictions defined in the Global Derivatives ~~Policies~~ and Counterparty Risk Policy, the following conditions apply: Strike Section III.C. ~~C.~~ **~~Counterparty Exposure for Options, Swaps and Futures~~** ~~1. The greater of $500 million or 25% of the total notional derivative exposure can be maintained with any one counterparty for non-exchange-traded derivatives (e.g., swaps, caps, floors, and options).~~ ~~2. Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. who have a short-term debt rating by at least two of the following three rating agencies:~~ ~~A1 (S&P) and P1 (Moody's), or F1 (Fitch Ratings), or rated on a long-term basis A3 (Moody's) A- (S&P), or A- (Fitch Ratings Services). The CalPERS internal research staff shall actively review these brokers.~~

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Global Fixed Income Program	Attachment B (International Fixed Income Program), Section III. and Section III.B.	Adjust the first paragraph in Section III. to the following: All transactions involving derivatives managed by both internal and external managers are governed by CalPERS Statement of Investment Policy for ~~Derivatives - External Money Managers~~ Global Derivatives and Counterparty Risk, except that leverage and shorting will be permitted in accordance with this Policy as outlined in Sections II, B and C. Strike Section III.B. ~~B. Counterparty Exposure for Options, Swaps, and Futures~~ ~~1. A maximum 33% of the total notional derivative exposure can be maintained with any one counterparty for non-exchange traded derivatives (e.g., swaps, caps, floors, and options). An exception is allowed if total derivative exposure in the International Program is less that $100 million. Where netting agreements approved by CalPERS Chief Investment Officer or his or her authorized designee are in place with the counterparty, only the net amount applies toward the $100 million limit.~~ ~~2. Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or U.K. who have a short-term debt rating by at least two of the following three rating agencies:~~ ~~A1 (S&P) and P1 (Moody's), or F1 (Fitch), or rated on a long-term basis A- (S&P), A3 (Moody's), or A- (Fitch).~~ ~~3. Counterparty creditworthiness shall equal or exceed "A3" as defined by Moody's or "A-" by S&P. The use of counterparties holding a split rating with one of the ratings below A3/A- is prohibited. External managers shall notify CalPERS if a counterparty is downgraded below A3/A- while an instrument held in the International Program is outstanding with that counterparty. The use of unrated counterparties is prohibited.~~ ~~4. Any entity acting as a counterparty shall be regulated in either the United States or the United Kingdom.~~

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for the Liquidity Program	Attachment A (US Treasury 2-10 Year Program), Section IV. and Section IV.C.	Adjust the first paragraph in Section IV. to the following: All transactions involving derivatives and leverage are governed by CalPERS Statement of Investment Policy for ~~Development of Derivatives Strategies~~ Global Derivatives and Counterparty Risk. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the UST Program. Strike Section IV.C. ~~C. Counterparty Exposure for Options, Swaps and Futures~~ ~~Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 (S&P) and at least P1 (Moody's), or rated on a long-term at least A3 (Moody's) and at least A- (S&P). CalPERS internal research staff shall actively review these brokers.~~
Statement of Investment Policy For Global Equity	Section V.B.2.	Adjust the language in V.B.2. to the following: 2. Investment Opportunity Set – The primary universe of allowable investment assets within Global Equity shall be publicly traded global equity securities and derivatives thereof as described in the Statement of Investment Policy for Global Derivatives and Counterparty Risk ~~Derivatives Policy~~. Any potential investment involving assets identified as being primarily associated with another CalPERS asset class shall only be undertaken upon:

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Asset Allocation Strategy	Section VII.C.3.a.-e. and VII.4.	Strike a.-e. under Section VII.C.3. and adjust the first sentence under section 3. 3. Counterparty risk. Counterparty risk shall be managed ~~by adherence to the following~~ in accordance with the Statement of Investment Policy for Global Derivatives and Counterparty Risk. ~~a. Non-exchange traded derivative agreements shall be made only with counterparties for which CalPERS has an executed International Swaps and Derivatives Association (ISDA) agreement.~~ ~~b. Counterparty creditworthiness, for non-exchange traded derivatives, shall be at a minimum of "A" or equivalent by leading credit rating agencies. The use of counterparties holding a split rating with one of the ratings below A is prohibited. The use of unrated counterparties is prohibited unless the counterparty is a wholly owned affiliate of a parent company that guarantees payment and meets the above credit standards.~~ ~~c. Swaps shall be settled quarterly or more frequently.~~ ~~d. Individual counterparty exposure, for non-exchange traded derivatives, is limited to 33% of the net notional option-adjusted exposure of all Program counterparty exposures at the inception of a new position. An exception is allowed if the Program total non-exchange traded derivatives exposure is less than $1 billion. Maximum notional exposure to a Program counterparty is $1 billion at inception of the position.~~ ~~e. Any entity acting as counterparty shall be regulated in either the United States or the United Kingdom.~~ ~~4. Exchange-traded derivatives used in the Program shall be traded on an exchange regulated by the SEC, CFTC (Commodities Futures Trading Commission) or the FSA (Financial Services Authority) of the United Kingdom.~~ Strike section VII.4. ~~4. Exchange-traded derivatives used in the Program shall be traded on an exchange regulated by the SEC, CFTC (Commodities Futures Trading Commission), or the FSA (Financial Services Authority) of the United Kingdom.~~

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for the Opportunistic Program	Section VI.C.3.a.-e. and Section VI.C.4.	Strike a.-e. under Section VI.C.3. and adjust the first sentence under section 3. 3. Counterparty risk. Counterparty risk shall be managed ~~by adherence to the following~~ in accordance with the Statement of Investment Policy for Global Derivatives and Counterparty Risk. ~~a. Non-exchange traded derivative agreements shall be made only with counterparties for which CalPERS has an executed International Swaps and Derivatives Association (ISDA) agreement.~~ ~~b. Counterparty creditworthiness, for non-exchange traded derivatives, shall be at a minimum of “A” or equivalent by leading credit rating agencies. The use of counterparties holding a split rating with one of the ratings below A is prohibited. The use of unrated counterparties is prohibited unless the counterparty is a wholly owned affiliate of a parent company that guarantees payment and meets the above credit standards.~~ ~~c. Swaps shall be settled quarterly or more frequently.~~ ~~d. Individual counterparty exposure, for non-exchange traded derivatives, is limited to 33% of the net notional option-adjusted exposure of all Program counterparty exposures at the inception of a new position. An exception is allowed if the Program total non-exchange traded derivatives exposure is less than $1 billion. Maximum notional exposure to a Program counterparty is $1 billion at inception of the position.~~ ~~e. Any entity acting as counterparty shall be regulated in either the United States or the United Kingdom.~~ ~~4. Exchange-traded derivatives used in the Program shall be traded on an exchange regulated by the SEC, CFTC (Commodities Futures Trading Commission) or the FSA (Financial Services Authority) of the United Kingdom.~~ Strike section VI.4. ~~4. Exchange-traded derivatives used in the Program shall be traded on an exchange regulated by the SEC, CFTC (Commodities Futures Trading Commission), or the FSA (Financial Services Authority) of the United Kingdom.~~

POLICY	SECTION	LANGUAGE ADJUSTMENT
Statement of Investment Policy for Securities Lending	Attachment A, Section I.C.1.	Adjust the language under section I.C.1. to the following: 1. All borrowers must be compliant with the counterparty guidelines in the Statement of Investment Policy for Global Derivatives Strategies and Counterparty risk and meet certain other financial criteria as determined by CalPERS.
Statement of Investment Policy for Securities Lending	Attachment B, Section A.2.a.	Adjust the language under section A.2.a. to the following: a. Repurchase agreements and Tri-Party Repurchase agreements must be compliant with the counterparty guidelines in the Statement of Investment Policy for Global Derivatives Strategies and Counterparty Risk and meet certain other financial criteria as determined by CalPERS at the time of purchase.

POLICY	SECTION	LANGUAGE ADJUSTMENT
1. Statement of Investment Policy for Real Assets 2. Statement of Investment Policy For Private Equity 3. Statement of Investment Policy for Absolute Return Strategies 4. Statement of Investment Policy for Multi-Asset Class Partners Program 5. Statement of Investment Policy for The California Employers Retiree Benefit Trust Fund 6. Statement of Investment Policy for The Legislators' Retirement System (LRS) Fund 7. Statement of Investment Policy for The Long Term Care (LTC) Fund 8. Statement of Investment Policy for The Judges Retirement System II (JRS II) Fund 9. Statement of Investment Policy for the Supplemental Income Plans, CalPERS Target Retirement Date, and POFF Funds 10. Statement of Investment Policy for Terminated Agency Pool 11. Statement of Investment Policy for Public Employees' Health Care Fund 12. Statement of Investment Policy for Supplemental Income Plans 13. Statement of Investment Policy for Developmental Investment Fund 14. Statement of Investment Policy for Corporate Governance Program 15. Statement of Investment Policy for Emerging Equity Markets Principles	Section TBD	In the appropriate area within each Policy listed to the left insert the following language: All transactions involving derivatives are governed by CalPERS Statement of Investment Policy for Global Derivatives Strategies and Counterparty Risk.

Michael C. Schlachter, CFA
Managing Director & Principal

October 24, 2013

Mr. Henry Jones
Chair, Investment Committee
California Public Employees' Retirement System
400 Q Street
Sacramento, CA 95814

Re: Global Derivatives and Counterparty Risk Policy

Dear Mr. Jones,

You requested our comments regarding the new Global Derivatives and Counterparty Risk Policy.

Recommendation

Since the changes requested by the Investment Committee during the first reading at the October Investment Committee meeting were incorporated into this document, Wilshire recommends that the Investment Committee approve these policy changes.

Discussion

The new policy prepared by Staff replaces and consolidates the current derivatives and counterparty policies. We have reviewed all of the new policies and the policies that they replace and have spoken to several members of Staff regarding this new policy.

A good deal of procedural language has been removed, such as specifics about things like counterparty ratings and limits. While those types of items have previously been decided by the board, the governance changes made over the past few years have delegated this to the Staff and the new policy has therefore eliminated all of these specifics. Going forward, a Staff committee will determine all risk limits instead of the Investment Committee.

In light of these procedural changes and the decreased role of the Investment Committee in overseeing changes to derivative and counterparty risks, we recommend that the Investment Committee continue to require Staff to periodically report on any changes made to counterparty and derivative risk limits and the aggregate levels of counterparty risk. Over the last several quarters, these reports have become less of a focus of the Investment Committee. Given these changes in the policy, we suggest that reviewing these risk reports should be of greater interest to the Investment Committee.

Should you require anything further or have any questions, please do not hesitate to contact us.

Best regards,