



Strength. Service. Commitment.

INVESTMENT POLICY STATEMENT

Effective July 1, 2017

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Chapter I: Legal Authority and Fiduciary Responsibilities

A. Introduction

The Board of Retirement (Board) of the San Diego County Employees Retirement Association (SDCERA or Association) has plenary authority and the fiduciary responsibility for investment of moneys and administration of the Association. The assets of a public pension or retirement system are held in trust, and the Board has exclusive control of the investment of SDCERA's Trust Fund (Fund) assets. (California Constitution Article XVI, Section 17.)

B. Legal Authority

Under the California State Constitution and the County Employees Retirement Law of 1937 (CERL), the Board is authorized to invest in any form or type of investment deemed prudent by the Board pursuant to the requirements of CERL Section 31595, which provides in part:

Except as otherwise expressly restricted by the California Constitution and by law, the board may, in its discretion, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the board.

C. Fiduciary Responsibility

The Board and its officers and employees shall discharge their duties:

1. Solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system;
2. With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims;
3. By diversifying the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so; and
4. Recognizing that its duty to its participants and their beneficiaries takes precedence over any other duty.

In discharging its fiduciary duties, the Board will exercise prudent judgments and to make these judgments will seek expert advice and guidance from the internal investment staff and external investment consultants. The Board's judgment will reflect the prevailing facts and

circumstances. As stated in Chapter II of this Investment Policy Statement (IPS), the Board recognizes the importance of maintaining a long-term perspective when setting policy and asset allocation.

The IPS governs all asset classes and establishes the guidelines, policies and procedures for the management of SDCERA's diversified investment portfolio. The IPS is subject to applicable provisions of law and the applicable limitations and requirements of SDCERA's governance policies. The Board may amend, supplement or rescind the IPS at any time at its discretion.

Chapter II: Investment Philosophy and Performance Objectives

A. Investment Philosophy

The Board believes that establishing an appropriate asset allocation is the single most important determinant of investment returns. Because the asset allocation decision is the investment decision that the Board has the most control over, the Board will place particular emphasis on setting the Trust Fund's asset allocation.

In setting the asset allocation, the Board recognizes that the pension payments to members are guaranteed by the Constitution of the State of California. The assets in the Trust Fund and their allocation will be such as to minimize the risk of loss, maximize the returns, minimize employer contributions, and defray the reasonable expenses of administering the system.

In determining asset allocation, the Board will adhere to the following core beliefs:

1. An investment program need not be complex to be successful;
2. The Board's role is to exercise its judgment to make decisions. These judgments will be based on a combination of experience, investment theory, and empirical evidence. The Board recognizes that pension assets are long-term investments and the measurement period is years, and, in some cases, decades. Past investment returns are important in making judgments on expected future returns and volatility. However, the Board recognizes that there will not be enough data observations available to "prove" an investment strategy or manager as the superior one and, therefore, a process that is based on theory combined with the analysis of empirical evidence is the process that leads to prudent judgments by the Board; and
3. The asset allocation decisions that have the largest impact on portfolio risk and return are the overall allocation between (1) public and private assets (including real estate, private equity, and real assets), (2) equity and fixed-income, and (3) domestic and international assets.

Given the importance of asset allocation and the associated investment policies, the Board-approved policies will be monitored by SDCERA staff for compliance on an ongoing basis and reported to the Board quarterly.

SDCERA's asset allocation and IPS will be reviewed every three years in conjunction with the tri-annual actuarial review. On an annual basis, the asset allocation and IPS will be updated, as needed, to ensure that SDCERA's policies remain consistent with the prevailing investment and economic circumstances.

B. Performance Objectives

The goal of SDCERA's investment program is to generate adequate long-term returns that, when combined with employer and employee contributions, will result in sufficient assets to pay SDCERA's present and future obligations. The following objectives are important to achieving this goal:

1. The investment program should seek to earn, on a long-term average basis, a rate of return that maximizes the return of the Trust Fund, subject to prudent risks under the prevailing circumstances, and is consistent with the level of risk and returns historically reflected in the actuarial investment return assumption;
2. Investment risk is inherent in any portfolio. SDCERA will take investment risk where (1) an estimate of the investment risks can be made, and (2) the risks can be measured and monitored so that portfolio changes can be made to ensure the portfolio is prudently diversified and is positioned to earn the highest returns under the current circumstances; and
3. Active management can be employed when, for each asset class, it can be expected to earn a net-of-fee return above an investible, passive benchmark. Paying investment management fees is acceptable provided that the fees are transparent and measurably add value over a low-cost, passive investment.

To achieve these objectives, the Board will allocate Trust Fund assets with a strategic, long-term perspective of the capital markets.

C. Investment Program Structure

Prudent and effective implementation of the Board's asset allocation decisions are critical to ensuring that the goals of the approved asset allocation are being met. SDCERA's investment program structure is designed to achieve a cost-conscious and risk-controlled implementation within each asset class, such that the asset class performs the role intended for its use in the asset allocation.

SDCERA will:

1. Implement the Board-approved asset allocation efficiently and with full transparency as to costs, risks, liquidity and leverage;
2. Gain exposure to the broad opportunity set within and across each asset class, and sub-asset class, by investing in a diversified asset-class specific strategy of index funds and active managers;
3. Measure and manage the Fund to minimize any residual risks that are not defined as part of the Board-approved asset allocation;

4. Pay little in investment management fees for market beta; and
5. Use industry-standard measurements for market risk (volatility, correlations, and expected drawdown) and active management risk (tracking error) as risk-budgeting and reporting tools to make informed investment decisions, to monitor and control investment risks, and to report both expected and realized risks to the Board.

D. Leverage

Leverage is a condition where the net potential market exposure exceeds the value of the underlying assets. Market exposure is defined to be risk assets, including, but not limited to equities, bonds, commodities, real estate and privately held assets. Based on the definition and measures of leverage in Chapter IV, under no circumstances will there be leverage at the total Trust Fund level.

E. Investment Managers

SDCERA will use external investment management firms to implement the Board-approved asset allocation. SDCERA's Chief Investment Officer (CIO) and his or her delegates within the SDCERA Investment Division (SDCERA Investment Staff) will recommend and oversee the investment vehicles and managers pursuant to the investment authority set forth in Chapter III. SDCERA's Investment Staff will not directly manage financial assets or particular strategies.

SDCERA adheres to the following principles relating to investment managers:

1. SDCERA may employ active investment management in areas where the preponderance of evidence shows that active management has generated value over time (on a net-of-fee and risk-adjusted basis), and there is conviction that the value-add by the strategy will be persistent over time;
2. All fees paid to investment managers will be measured, tracked, and reported. Value added will be measured as net of fee returns with the reference point of an investible, passive index. Paying active management fees is acceptable, provided value added is measurable, documented, and within accepted industry standards; and
3. SDCERA's Investment Staff and, where appropriate, the general investment consultant (General Consultant), will undertake a comprehensive investment manager due diligence process that will include, but is not be limited to, the following elements:
 - a) Business – stability, reputation, client base;
 - b) Staff – quality, depth of resources, team dynamic, turnover;

- c) Investment Process – cogent and transparent, based on sound investment theory, implementation, clear competitive advantage among peers;
- d) Performance and Risk Analysis – consistent with process, risk-adjusted, persistent;
- e) Terms and Conditions – cost effective, current best practice; and
- f) Operational Due Diligence – valuation of assets, clear operational controls, third-party vendors.

Chapter III: Governance: Roles and Responsibilities

The Board is responsible for formulating, adopting, and supervising the investment policies of SDCERA's investment program, including, but not limited to, the following decisions.

A. Board of Retirement Investment-Related Responsibilities

1. The Board is responsible for setting SDCERA's investment philosophy, objectives, and risk tolerances, and for adopting the Trust Fund's asset allocation that forms the basis of the implementation of the investment program. This includes:
 - a) Decisions on which asset classes and benchmarks will be used in the investment programs;
 - b) The allocation to each asset class;
 - c) Risk tolerances for the total Trust Fund and individual asset classes;
 - d) The operational policies that will implement the asset allocation; and
 - e) The monitoring and reporting of the risk management and performance measurement of the investment program.
2. The Board is responsible for approving the specific policies required to implement the investment program. These include, but are not limited to, the approval of the SDCERA custodian bank(s) (Custodian), portfolio rebalancing, proxy voting, manager retention and termination, securities lending, commission recapture, and strategic plans for illiquid asset class such as real estate, private equity, and other alternative investments.
3. The Custodian maintains custody of the majority of SDCERA's assets and accounts for and reports on all of SDCERA's assets. Given the importance of this role, the Board is responsible for the selection of the Custodian. The operating principles for choosing the Custodian are delineated in SDCERA's Vendor Selection Policy. SDCERA's CIO and Chief Financial Officer (CFO) will provide supporting analysis and input to the Board in making this decision.
4. The Board is responsible for the approval of the general investment consultant to the investment program.

B. Delegated Authority on Investment Program Implementation and Oversight

In delegating this authority, the Board establishes the core operating principles of responsibility, accountability, and transparency that will apply to actions taken under this authority as well as the duties delegated to SDCERA Investment Staff in Section III.C.

Under the legal authority granted the Board summarized in Chapter I, the Board grants to SDCERA’s Chief Executive Officer (CEO) and CIO (SDCERA Staff), the following authority and responsibilities:

1. Recommend to the Board for its approval an appropriate program structure to implement the Board-approved asset allocation and investment policy.
2. Hire external investment management firms within the parameters in the table below. All decisions must be approved by SDCERA Staff.

<i>Asset Class / Role within Total Fund</i>	<i>Initial Allocation</i>	<i>Follow-on Allocation **</i>	<i>Total Manager Exposure</i>
Public Markets and Actively Managed Liquid* Portfolios	3%	2%	5%
Private Markets *** and Illiquid Portfolios	0%	1%	5%
Passive-Plus Index Funds	10%	5%	30%
Index Funds	30%	20%	50%

% = Percentage of the Total Trust Fund

*“Liquidity” is defined as open-ended investments and investment vehicles whereby the manager can liquidate the investments without meaningful market impact and/or bid/ask spreads in a period of days or weeks, depending on the asset class.

**“Follow-on Allocation” is defined as additional investments made with an existing SDCERA investment manager. Generally speaking, this applies to private asset

managers where SDCERA invests in subsequent funds managed by the same team, applying the same investment thesis.

***Private Markets are private market investments, such as private equity and private real estate. Given their long-lived nature, potential for volatility, and higher investment management costs, private markets require a higher standard of review. As such, the Board will review and approve all such investments based on the recommendation of the CIO and the due diligence conducted by the Investment Staff and General Consultant.

3. The Board grants SDCERA Staff authority for follow-on allocations for Private Markets investments of up to 1% of the value of the total Trust Fund. Follow-on investments cannot occur within six months of initial manager allocation without prior approval of the Board.
4. Allocations to Public Markets portfolios above 2% where the assets are not held by SDCERA's Custodian or custodial correspondent bank or in a registered fund such as a SEC registered 1940 Act fund or a European registered UCITS fund must be approved by the Board.
5. The Board grants SDCERA Staff the authority to terminate investment managers. All such terminations will be reported to the Board in the SDCERA monthly risk-return report. Reasons to terminate a manager may include, but are not limited to, turnover of investment management or other professionals that is likely to have an adverse impact on the performance of the strategy, divergence of strategy from stated objectives, violation of guidelines, legal action or action by any regulatory organization on the investment management firm, and/or a change in the organizational structure that is likely to have an adverse impact on the performance of the strategy.
6. The CIO will review and approve recommendations and supporting documentation relating to manager selection and termination. The specific elements of due diligence are to be conducted by SDCERA's Investment Staff or the General Consultant and will vary based on the asset class and the characteristics of the individual manager(s) and/or strategies under consideration. The due diligence with respect to underlying investment managers will include, but is not limited to, an assessment of the merits of investment process and philosophy, resources and talent available to the organization, the likelihood that key resources will remain, risk management processes, internal control and compliance processes and procedures, other organizational considerations, and, where appropriate, background checks on the key principals managing the portfolio or leading the investment management firm.

7. SDCERA's Investment Staff has the responsibility and authority to rebalance assets within an asset class to maintain the Board-approved asset allocation and risk limits. The rebalancing review will be done monthly upon receiving the holdings report provided by the custodian, or when a materially large shift in asset values has occurred. When portfolio rebalancing to guidelines is required, the Investment Staff will have up to twenty business days after the review date to implement the changes. The Investment Staff has authority to change the allocations to the existing investment managers within the existing asset allocation. The CIO must approve all these rebalancing changes. Additional rebalancing rules are contained in Chapter V, Section D.
8. All investment manager hiring and terminations will be reported to the Board by SDCERA's Investment Staff in the monthly risk-return report. Reporting will include a summary of due diligence of SDCERA's Investment Staff and/or General Consultant.

C. Duties Delegated to SDCERA's Investment Staff

1. Conduct a review of the asset allocation and IPS on an annual basis, and in-depth analysis every three years, as set forth in Chapter II;
2. With the CFO, recommend to the Board firms to serve as the Custodian and, if appropriate, the securities lending agent;
3. Monitor and supervise the ongoing investment program asset allocation, risk, external managers, and the measurement and verification of investment management fees;
4. Manage day-to-day investment operations;
5. Manage day-to-day liquidity needs and rebalance the Trust Fund in accordance with rebalancing framework;
6. Conduct manager searches and recommend candidates for Board approval for manager candidates that fall outside Investment Staff's authority;
7. Address and resolve violations of investment manager guidelines;
8. Negotiate manager fees and other outside vendor fees; and
9. Monitor and provide analysis of the General Consultant and other advisors to the investment program, periodically.

D. The Role of Investment Consultants

1. SDCERA will employ a General Consultant who serves as a fiduciary for the Trust Fund. Where necessary, SDCERA will employ specialist investment consultants (Specialist Consultant). The General Consultant and Special Consultant work for the Board in a direct role as the independent expert on board policy, asset allocation, and Trust Fund performance. The General Consultant and Special Consultant will also work for SDCERA's Investment Staff, providing risk-return analysis, investment manager analysis and overall support.
2. The selection of the General Consultant is critical, given their responsibilities and the Board's reliance on advice and guidance separate and distinct from that of SDCERA's Investment Staff. Given the complexity of capital markets and global orientation of more and more investment managers, SDCERA will seek consultants that have global resources and deep research capabilities. SDCERA will also require consultants with expertise in:
 - a) Governance and policy development;
 - b) Asset allocation and risk modeling;
 - c) Performance reporting and risk reporting;
 - d) Manager research capabilities and demonstrated topical research related to SDCERA's asset classes; and
 - e) Experience in working with large institutional investors, including public pension funds.
3. The General Consultant and any Specialist Consultant(s) will work with SDCERA's Custodian, Investment Staff, and the Board, to:
 - a) Monitor and report investment returns, benchmark returns, manager peer group rankings, portfolio risk(s), and active management risk. The format and frequency of this reporting are addressed in Chapter VI;
 - b) Provide the Board and Investment Staff with reports and analysis of material events affecting the portfolio asset allocation, risk profile, and external managers;
 - c) Analyze and advise on the annual and tri-annual IPS and Asset Allocation updates;

- d) Monitor portfolio performance attribution for the total Trust Fund and asset classes;
- e) Perform external manager tracking, manager peer group ranking and benchmark comparisons, performance reporting, and evaluation;
- f) Assist and support Investment Staff with investment manager searches; and
- g) Advise the Board with respect to the investment program in general.

E. Investment Manager Requirements

1. Every external manager retained by SDCERA shall hold itself to a fiduciary standard of prudence and care as defined by the Constitution of the State of California and the CERL. Manager behavior and practices must also be consistent with the ethical standards promulgated by the CFA Institute, in accordance with applicable local, state, and federal statutes, and with industry best practices in general.
2. External investment manager responsibilities include, but are not limited to, the following:
 - a) Invest assets in a prudent manner and consistent with the individual investment management guidelines and the role of a fiduciary;
 - b) Be a SEC-registered investment advisor under the 1940 Act, except as otherwise provided in this Policy, and be recognized as providing demonstrated expertise over a number of years in the management of institutional, tax-exempt assets within a defined investment specialty. In emerging investment opportunities where there may not be a track record, the process will be judged theoretically sound by SDCERA's Investment Staff and the investment manager firms will have a multi-year period of accomplishment in portfolio management;
 - c) Adhere to the investment management style concepts and principles for which they were retained, including, but not limited to, developing portfolio strategy, performing research, developing buy, hold, and sell lists, and purchasing and selling securities;

- d) Execute all transactions for the benefit of SDCERA and at the best net cost to SDCERA with brokers and dealers who are qualified to execute institutional orders, and facilitate the recapture of commissions on behalf of SDCERA, as directed;
- e) Maintain timely communication with the General Consultant and SDCERA Investment Staff relating to the investments managed on SDCERA's behalf, including, but not limited to:
 - i. Major changes in the investment manager's investment outlook, investment strategy and portfolio structure;
 - ii. Significant changes in ownership, organizational structure, financial condition or senior personnel;
 - iii. Any changes in the investment manager or other key personnel assigned to the SDCERA;
 - iv. Except for index funds and passive-plus index funds, reporting within 30 days, if a client which in aggregate represents greater than 5% of the investment manager's strategy/portfolio or firm AUM terminates its relationship with the investment manager; and
 - v. All pertinent issues that the investment manager deems to be of significant interest or material importance;
- f) Provide monthly and quarterly reports summarizing all portfolio activity and periodic reports attesting to compliance with contractual, ethical, and procedural guidelines as required by SDCERA;
- g) Provide in-person account reviews as required by the General Consultant and/or SDCERA Investment Staff;
- h) Provide timely reporting of trades to the Custodian, as necessary. Provide timely performance and related portfolio data to the Custodian;
- i) Unless expressly directed by the Board or any third-party proxy voting agent appointed by the Board, vote proxies relating to the portfolios that they manage on behalf of SDCERA. The managers will vote proxies with the same care, skill, diligence, and prudence as is exercised in managing its other assets. On an annual basis, the manager will provide Investment Staff and/or the General Consultant a summary of proxies and how they voted on them; and

- j) Comply with all applicable federal, state and local laws and regulations as well as SDCERA Board policies pertaining to the scope of work performed by the external investment manager for SDCERA. It is the responsibility of each external manager to become familiar with the federal, state and local laws and regulations pertaining to the manager's scope of work. SDCERA Investment Staff will provide external investment managers with applicable SDCERA Board policies.

F. Securities Lending

1. SDCERA's assets can be made available for securities lending. The Board must approve SDCERA entering into a securities lending agreement. If such an agreement is entered into, the securities lending provider will be governed by a separate contract, distinct from a custody relationship, detailing the type of securities lending relationship. This is both mandatory and essential in the treatment of securities lending as an investment function with the associated risks and return implications and fiduciary responsibilities.
2. The securities lending provider must exercise investment discretion within the overall objective of preserving principal, providing a liquidity level consistent with market conditions and the lending and trading activities of the Trust Fund's assets, and maintaining full compliance with stated objectives and statutory provisions. The securities lending provider will exercise prudence and expertise in managing the cash collateral reinvestment function.

Chapter IV: Asset Classes, Leverage and Risk

A. Permissible Investments

To minimize the risk of loss and maximize the return of the Trust Fund, SDCERA will seek broad exposure to various asset classes such as equity, fixed income, real estate, and private markets (which include private equity and infrastructure).

1. The following asset classes/strategies are appropriate candidates for consideration of inclusion in the portfolio:
 - a) US equity, including convertible and preferred debt;
 - b) Non-US equity, including emerging and frontier markets;
 - c) Global equity, including equities as listed above;
 - d) Domestic fixed income, including U.S. Government, corporate, asset-backed securities, high yield, floating rate debt, bank loans, convertible bonds, real estate debt, and preferred stock;
 - e) International fixed income, including high yield, emerging markets, and frontier markets;
 - f) Mutual funds, closed funds, and ETFs that are registered on a national exchange;
 - g) Real estate, including private and public real estate;
 - h) Private markets, including private equity, private equity co-investments, private credit, Rule 144A assets, and real assets such as infrastructure, timber, agriculture and mining; and
 - i) Portfolios that utilize public and private market securities typically offered in a hedge fund structure, a long-short portfolio, and commodity trading advisor portfolios (CTAs), where the market leverage is fully encapsulated and the encapsulation limits the risk of loss to SDCERA to the investment in the portfolio.

B. Criteria for Inclusion of Asset Classes

1. The following criteria will be used in evaluating an asset class for inclusion in the investment program:
 - a) Whether the asset class has sufficient size and liquidity;
 - b) Whether SDCERA Investment Staff and the General Consultant can measure the risk, return, and correlations of the investment against readily-available benchmark indices; and
 - c) Whether the incorporation of the asset class contributes to the return enhancement and/or further diversification of the Trust Fund's assets.

C. Leverage

Leverage exists where the net potential market exposure exceeds the value of the underlying assets.

1. Total Trust Fund Market Leverage: Leverage of the total Trust Fund is defined as creating a market exposure to risk assets that is greater than the total value of the Trust Fund. Risk assets include, but are not limited to, equities, bonds, commodities, real estate, and privately held assets. Total Trust Fund market leverage is not permitted.
2. Encapsulated Leverage: Approved portfolio managers may use leverage in their portfolios so long as it is used in a manner consistent with the discipline for which the investment manager was hired and does not introduce leverage at the total Trust Fund level. These portfolios include, but are not limited to, real estate investments, private equity investments, hedge funds, long-short portfolios, and commodity trading advisors (CTAs). Examples of these investments include, but are not limited to, debt tied to an investment in a building, the debt of a company in the private equity portfolio, or the futures positions in a hedge fund, where the total market exposure exceeds the portfolio investment but the losses are limited to that investment and there is no recourse to the total Trust Fund.

The leverage in these strategies must be “encapsulated” in the specific investment such that any claims by debt holders and counterparties will be limited to the value of SDCERA’s investment in the portfolio. Under no circumstances should there be recourse to the Trust Fund beyond the value of SDCERA’s investment in the specific portfolio.

3. Fully-Collateralized Leverage: A portfolio that invests in futures/options/swaps, purchased with the specific intent to gain exposure to a risk asset class within the

approved asset allocation guidelines, must be fully collateralized with cash or short-term securities in the same account. The fully collateralized cash and short-term securities account is used to accept and make collateral payments and is managed such that the total value of the cash and short-term securities is equal to or greater than the notional value of the futures/options/swaps. The purpose of this collateral structure and daily management is to limit any losses to the value of SDCERA's investment in the futures/options/swaps. These portfolios include passive-plus portfolios and cash overlay portfolios. This type of fully-collateralized portfolio limits any losses to the value of SDCERA's investment.

D. Private Asset Commitments and Open Capital Calls

When the Board approves a private asset investment, the typical structure is a contractual agreement to provide funds from the Trust Fund when these funds are "called" by the investment manager up to the limit of the commitment that the Board has approved. Given the uncertain pacing of private investment capital calls, it is typically the case that the total notional amount of private assets contractually committed by the Board exceeds the total Trust Fund investments in private assets. These open capital calls are funded when they are requested by the manager and are funded by using existing cash balances or, if required, by selling existing Trust Fund assets. These open capital calls do not count as leverage at the total Trust Fund level.

E. Derivatives

Derivatives include futures contracts; options; options on futures contracts; forward contracts; swap agreements, including swap contracts with embedded options; any instrument or contract intended to manage transaction or currency exchange risk in purchasing, selling or holding investments; and any other instrument commonly used by institutional investors to manage institutional investment portfolios. Investment managers may be permitted to utilize derivatives to implement their approved investment strategies within their portfolios. Each individual investment manager's conduct will specify guidelines regarding the specific derivatives usage. Derivative usage by investment managers that introduces leverage that is not encapsulated nor fully collateralized and thus introduces market leverage to the total Trust Fund is not permitted.

F. Risk Measurement and Management

The measurement, management, and reporting of the risks associated with the Trust Fund are very important.

1. Risk measures, which will come from the Custodian and General Consultant, will be reported to the Board monthly.
2. While SDCERA Investment Staff is expected to understand risk analysis and measurement, and to actively monitor the portfolio's risks, the monthly reporting

to the Board will be based on the independent calculations of the Custodian and General Consultant.

3. The following risk measures will be reported to the Board monthly. Recognizing the industry-wide measurement limitations of private market assets, these measures will be reported for the Trust Fund and for total public markets assets.
 - a) The volatility of the Trust Fund. This is measured by standard deviation of returns of the Trust Fund on monthly data over a trailing three-year period;
 - b) The volatility of the benchmark(s) of the Trust Fund measured by standard deviation of returns of the benchmarks of the Trust Fund on monthly data over a trailing three-year period;
 - c) The ex-ante estimate of Trust Fund risk. This forward-looking risk estimate will be measured by the expected standard deviation of the Trust Fund returns. This risk estimate will be calculated by the General Consultant using SDCERA's current portfolio allocations and the General Consultant's risk model, which is used for large pension plans, is considered to be within the family of best practices, and has been reviewed and certified by the CIO;
 - d) The Trust Fund's tracking error, or deviation of returns from the approved asset benchmark allocation. Tracking error is measured as the standard deviation of the Trust Fund's return minus the asset allocation benchmark return on monthly data over a three year period; and
 - e) The ex-ante estimate of the Trust Fund tracking error. This forward-looking tracking error estimate will be calculated by the General Consultant using SDCERA's current portfolio allocations; the benchmark allocations; and the General Consultant's risk model, which is used for large pension plans and has been reviewed and certified by the CIO.
4. On a quarterly basis, based on the SDCERA's reconciled Custodian data, SDCERA Investment Staff will provide a detailed review of the following:
 - a) Asset class weights versus the approved fiscal year asset allocation;
 - b) Portfolio performance attribution for the total Trust Fund and the sub asset classes of equity, fixed-income, alternative/opportunistic, and private markets; and

- c) Risk-return performance of the individual portfolio managers of the Trust Fund.

G. Tracking Error

1. Tracking error will be monitored and managed as part of the Trust Fund's regular rebalancing program, portfolio implementation strategy, and the selection of individual portfolio managers. The ex-ante tracking error estimate, as measured by the General Consultant's model, is set at 2.5%. The ex-ante and ex-post tracking error will be provided to the Board in the monthly risk-return report.
2. Measures of ex-ante portfolio tracking error are an estimate of a wide range of uncertain future outcomes and, therefore, cannot be precisely measured. Even when portfolio decisions are made within the tracking error limit set by the Board, the realized measure of tracking error can be measurably greater than the ex-ante estimate of the tracking error. Therefore, the Board sets tracking error as an operating guideline within the overall portfolio responsibility delegated to SDCERA Investment Staff to be made with skill, prudence, and diligence.

H. Liquidity Risk

A prudent liquidity management program will be established by the CFO and CIO, and approved by the CEO, to ensure that the Trust Fund maintains ample liquidity to meet its funding commitments, especially the timely payment of benefits to SDCERA's members. This program will be reviewed with the Board annually.

Chapter V: Asset Allocation

A. Asset Class Allocations, Ranges and Update Cycle

1. The asset allocation of the Trust Fund will be evaluated by the Board annually during the second quarter of the calendar year. The evaluation will include a detailed structural review of returns, risks, performance attributions, portfolio costs, and current economic and market circumstances. Based on this evaluation, the Board will approve an asset allocation for the following fiscal year beginning on July 1.
2. At least every three years, the Board will undertake an asset/liability study that evaluates the asset allocation policy in the context of projected actuarial liabilities and funding practices. The study will be timed to match the work of SDCERA's actuary.
3. SDCERA's investment program will be designed to maximize the probability that SDCERA's investment goals will be fulfilled. SDCERA will adopt and implement an asset allocation policy that is predicated on a number of factors, including:
 - a) A projection of actuarial assets, liabilities, benefit payments, and the cost of contributions;
 - b) Historical and expected long-term capital market risks, returns, and correlation behavior;
 - c) Accepted economic and capital market theory on portfolio risks, returns, and the trade-off between risks and returns;
 - d) An assessment of current and future economic conditions, including inflation and interest rate levels; and
 - e) Liquidity requirements.

4. SDCERA’s strategic asset allocation, ranges and benchmarks for FY 18 are as follows:

	Policy Target	Minimum	Maximum	Benchmark
Total Liquid Equity	45%	40%	50%	MSCI ACWI IMI
Global Equity	3%	0%	10%	MSCI ACWI IMI
U.S. Equity	18%	13%	23%	MSCI USA IMI
Non-U.S. Equity: Developed	15%	11%	19%	MSCI EAFE IMI
Non-U.S. Equity: Emerging	9%	5%	13%	MSCI Emerging Markets Index
Risk-Reducing Fixed Income	18%	13%	24%	Bloomberg Barclays U.S. Intermediate Aggregate Index
Return-Seeking Fixed Income	6%	0%	12%	BAML US High Yield Index
Opportunistic	8%	0%	15%	70% ACWI IMI / 30% Bloomberg Barclays U.S. Intermediate Aggregate Index Balanced Benchmark
Total Private Assets	23%	10%	25%	
Real Estate	9%	5%	13%	NCREIF ODCE Index
Private Equity	8%	3%	12%	MSCI ACWI IMI
Private Real Assets	6%	3%	9%	MSCI ACWI IMI

Notwithstanding the allocations and ranges above, the Trust Fund’s tracking error measure as defined in Chapter IV, Section G of this Investment Policy Statement serves as a constraint on Policy Target allocations.

B. Total Trust Fund Benchmarks

The reference benchmarks for the Trust Fund are defined as follows:

1. The Assumed Actuarial Rate of Return;^{*}
2. The SDCERA Benchmark,^{**} comprised of the following:
 - a) 45% MSCI ACWI IMI;
 - b) 16% Bloomberg Barclays U.S. Intermediate Aggregate Index;
 - c) 8% Bank of America Merrill Lynch U.S. High Yield Index;
 - d) 8% Balanced Benchmark;
 - e) 23% SDCERA private asset benchmark, currently set at 1/3 NCREIF ODCE plus 2/3 MSCI ACWI IMI; and
3. The Balanced Benchmark,^{***} comprised of the following:
 - i. 70% MSCI ACWI IMI; and
 - ii. 30% Bloomberg Barclays U.S. Intermediate Aggregate Index.

The performance of the Trust Fund and the benchmarks will be included in SDCERA's Investment Staff's monthly risk-return report to the Board.

^{*}The Actuarial Rate of Return references SDCERA's long-term investment expectation recommended by SDCERA's actuary and adopted by the Board.

^{**}The SDCERA Benchmark (45/16/8/8/23) references the returns from the Board-approved asset allocation invested in index funds and is rebalanced monthly.

^{***}The Balanced Benchmark references the returns of an index portfolio invested in two low-cost index funds and is rebalanced monthly.

C. Benchmark Definitions

1. MSCI ACWI IMI: Morgan Stanley Capital International All Country World Index - Investable Market Index.
2. MSCI USA IMI Stock Market Index: Morgan Stanley Capital International United States of America - Investable Market Index.
3. MSCI EAFE IMI Index: Morgan Stanley Capital International Europe, Australasia and Far East - Investable Markets Index.
4. MSCI Emerging Market Index: Morgan Stanley Capital International Emerging Market Index.
5. Bloomberg Barclays U.S. Intermediate Aggregate Index.
6. NCREIF ODCE Index: National Council of Real Estate Investment Fiduciaries – Open End Diversified Core Equity Index.

D. Rebalancing

The purpose of rebalancing is to maintain the Board-approved asset allocation.

1. SDCERA Investment Staff will maintain a structured rebalancing process, whereby actual allocations to asset classes will be managed within the Board-approved rebalancing ranges. The decision process to rebalance will take into account portfolio performance, tracking error, and costs. The Board recognizes there is a trade-off between cost, momentum, and valuation, and has delegated to SDCERA Investment Staff the specifics of rebalancing within the approved asset allocation ranges.
2. When the allocation to an asset or sub-asset class falls outside the range specified in the IPS, a rebalancing program will be initiated according to the delegated authority in Chapter III. As specified in Chapter III, the rebalancing review will be done monthly upon receiving the holdings report provided by the Custodian, or when a materially large shift in asset values has occurred. If current circumstances are such that, in the judgement of SDCERA Investment Staff, it is not prudent to rebalance, SDCERA Investment Staff will ask the Board for an exception to the policy. The results of this rebalancing will be reported to the Board in the monthly risk-return report.
3. Less liquid private assets, such as real estate and private equity, cannot be managed within rebalancing ranges, but will instead be managed to target over

time through distributions and strategic new investments. Any assets outside of rebalancing ranges will be reported to the Board in the monthly risk-return report.

E. Price Volatility in Public Markets versus Private Markets and Portfolio Rebalancing

Given the potential for rapid moves in the daily valuation of public markets assets, a large move in public markets asset prices, up or down, can materially change the asset allocation between private markets and public markets. When, in the judgment of SDCERA Investment Staff, a large value movement in public markets assets is the cause for private asset portfolios to exceed approved guidelines, the following policy guidelines apply:

1. No immediate rebalancing is required;
2. SDCERA Investment Staff will review the Trust Fund asset allocation and risk measures and determine if a resetting of the asset allocation and associated asset class guidelines is required. The analysis will be reviewed with the General Consultant; and
3. At the next scheduled Board Meeting, SDCERA Investment Staff will report the status of portfolio risk and asset allocations versus guidelines and, if there is a recommendation to rebalance, present a rebalancing recommendation to the Board.

F. Liquidity

Investments that entail a greater degree of illiquidity, such as private equity, real estate, real assets, infrastructure and public markets, such as frontier markets, that have characteristics of illiquidity, should offer the potential for greater return and/or enhanced diversification. As a long-term investor, SDCERA has the ability to bear illiquid investments. However, in recommending allocations to illiquid asset classes, SDCERA Investment Staff will assess if SDCERA's total Trust Fund is adequately compensated for bearing the illiquidity, lower transparency and greater complexity of holding private market investments. SDCERA Investment Staff and the General Consultant will consider cash flow projections and identify a prudent level of assets that can be committed to such illiquid asset classes. Consideration should also be given to the size that such allocations may comprise in times of market stress to ensure that the overall allocation to such categories does not exceed the intent of policy and negatively impact the Trust Fund's ability to meet ongoing cash flow needs.

G. Opportunistic Investments

1. Opportunistic investments can add value to the Trust Fund. These investments encompass a broad range of alternative strategies that do not fit within a single traditional asset. Investments may also be “opportunistic” in the sense that they may be available for investment only during certain market environments for a limited duration of time.
2. The guidelines for opportunistic investments are:
 - a) Whether a preliminary estimate of risk and net return can be made for the portfolio and a public benchmark is assigned;
 - b) Whether there is a traceable connection between the risk-return expectation of the portfolio to the expected risk-return performance of the total Trust Fund; and
 - c) Whether SDCERA Investment Staff can measure and assess performance results on a monthly or quarterly basis.

Chapter VI: Trust Fund Monitoring and Reporting

The delegation by the Board of certain duties to SDCERA Staff and SDCERA Investment Staff relies upon the principles of responsibility, accountability, and transparency. Transparency comes from accurate, timely, and clear reporting to the Board of the Trust Fund's assets, investment returns and risks, portfolio costs, and portfolio implementation decisions made by SDCERA Investment Staff. This chapter delineates the schedule and content of the core reporting that the Board will rely upon to fulfill its fiduciary duties.

A. Meeting and Reporting Schedule

1. Quarterly Meeting Reporting

In recognition of the long-term nature of the Trust Fund's assets and the Board's oversight responsibilities, SDCERA Investment Staff will provide four detailed and comprehensive quarterly reports to the Board. These quarterly reports will cover the SDCERA monthly risk-return report and the in-depth quarterly reports on Trust Fund performance, performance attribution, portfolio risk, portfolio costs, and, when appropriate, individual investment managers. These meetings will also cover current market conditions, commentary on portfolio performance and manager performance, updates on relevant regulatory changes, special market topics and continuing education.

The "as-of date" of the data used in the quarterly reporting will be from the prior calendar quarter end (e.g., the February meeting will review data through December 31 of the prior year using data from the Custodian). The analysis and reporting will be done by SDCERA Investment Staff with the support of the General Consultant.

2. Monthly Meeting Reporting

The risk-return report will be distributed to the Board every month. The General Consultant, using the Custodian's data and the General Consultant's risk model, will prepare the risk-return content of this report. SDCERA Investment Staff will review the data, add its report, and then distribute the report to the Board. Given the short time from month-end to submitting the report, typically ten days, some of the performance data will be subject to final revisions.

The SDCERA monthly risk-return report will contain the following:

- a) A report on asset allocation guidelines, rebalancing activities, and any breaches of Trust Fund guidelines;
- b) Any changes in managers and allocations to managers made in the portfolios by SDCERA Investment Staff;
- c) The CIO's report; and

- d) Any important topics or issues that need to be called to the Board's attention.

B. Performance Monitoring

1. The Trust Fund's performance will be compared to the actuarial assumed rate of return, a universe of other public funds, the SDCERA performance benchmark, and a Global Balanced benchmark. Performance will be reported on a net-of-fees basis.
2. Investment managers will be measured against stated objectives, an appropriate market index, a broad universe of managed portfolios, and against a smaller peer universe of portfolios managed by a similar investment style.
3. The Board will review and approve appropriate policy benchmarks annually.

C. Liquidity and Fees

Two important measures of the Trust Fund are liquidity and the fees paid to investment managers. SDCERA Investment Staff will report these measures to the Board as part of the quarterly portfolio review.

D. Manager Monitoring

1. SDCERA Investment Staff and General Consultant will review investment manager performance based on the Custodian's holding reports, quarterly performance reports, manager announcements, monthly performance and compliance reports, and other inputs, as required by the Investment Staff. Any notable changes in these factors will be summarized and provided to the Board quarterly.
2. Managers will be ranked considering a range of attributes including, but not limited to, the factors listed in Chapter II.

Review

This IPS shall be reviewed by the Board at least every three years and may be amended at any time.

History

Adopted November 5, 2015. (This IPS repeals and replaces the IPS adopted on January 6, 2000 and last amended July 17, 2014.)

Revised June 15, 2017.