TEACHERS' RETIREMENT BOARD

INVESTMENT COMMITTEE

SUBJECT: Investment Policy and Management Plan Revision – First Reading | ITEM NUMBER: 3

CONSENT: ___ | ATTACHMENT: 1

ACTION: X | DATE OF MEETING: July 13, 2007

INFORMATION: ___ | PRESENTERS: Christopher Ailman, Allan Emkin, Pension Consulting Alliance

---

POLICY

The asset allocation of the CalSTRS Investment Portfolio is governed by the Investment Policy and Management Plan (IPMP).

PURPOSE

The purpose of this item is to update the Investment Policy and Management Plan in the following two areas: 1) set new asset allocation targets for the 07-08 Fiscal Year, as we strive to grow Real Estate (RE) and Alternative Investments (AI); and 2) adjust the benchmarks in accordance to the new policies adopted in the past year.

In accordance with the Investment Policy and Management Plan, each July, the Investment Committee must set the asset allocation targets for the following year. At the September 2006 meeting, the Investment Committee approved new long-term asset mix targets and a step by step plan to achieve those levels. The following is an excerpt from the September 7, 2006 Investment Committee memo and the Investment Policy and Management Plan (page A-13/14) on the asset allocation implementation plan:

> To manage the shift to the new allocation targets established in 2006, the Investment Committee has developed a step approach. The target asset mix will be established at the start of each Fiscal Year. The respective ranges of +/- three percent for U.S. equity, non-U.S. equity, and fixed income will apply to each year's target. The range for alternative investments, real estate, and liquidity will be zero to + two percent of the long-term target for the entire plan.

Asset Class	FY 06-07	Step 2	Step 3	Step 4	Long-term targets
U.S. Equity	42%	42%	42%	41%	40%
Non-U.S. Equity	21%	21%	21%	21%	20%
Alternative Investments	6%	7%	7%	8%	9%
Real Estate	7%	8%	9%	10%	11%
Fixed Income	23%	22%	21%	20%	20%
Liquidity	1%	0%	0%	0%	0%

When adopted last year, it was noted that the plan was not year by year, but rather a step by step approach. While that might seem minor, it's actually rather significant. This was done to recognize that the financial markets are fluid and dynamic, and investment opportunities don't follow a rigid calendar. On one hand, we wanted to avoid the pressure to allocate funds on a time line. On the other hand, we didn't want to be restricted from moving faster if opportunities presented themselves. We need the flexibility to pay attention to opportunities and market conditions. This year is a prime example, where we invested more than originally anticipated and, more importantly, we saw returns from AI and RE greater than forecasted. As a result, after just one year, we are skipping step two of the plan and moving to step three.

The first step is to adjust the target for AI and RE up to their current levels, then adjust the public markets asset class according to the implementation plan. The changes are reflected on page A-12 of the IPMP.

- The targets for Real Estate will be set at 9% and Alternative Investment at 7%.
- The level of RE and AI would align with step three of the plan. That would set U.S. Equity at 42%, Non-U.S. Equity at 21%, Fixed Income at 21% and Cash at 0%.
- These new targets would be retro-active to July 1, 2007, and would be used to establish the Total Fund benchmark. That benchmark is used to measure the Fund's success over the baseline passive index returns in the Annual Report, allocation benchmarks, performance measurement, incentive calculations, and risk measurement.

The other change to the IPMP is on page A-5 under Performance Benchmarks. The Investment Committee has approved changes to the benchmarks within the individual asset class policy statements and those changes need to be reflected in the overall Investment Policy and Management Plan.

RECOMMENDATION

Since this is a first reading of the IPMP revision, staff and PCA request the Committee's comments and feedback on the proposed changes. Those comments will be incorporated with these changes and be presented for final adoption at the September '07 Investment Committee meeting.

Prepared and recommended by:

Christopher J. Ailman
Chief Investment Officer

Attachment 1
Investment Committee – Item 3
July 13, 2007

CALSTRS

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

INVESTMENT POLICY & MANAGEMENT PLAN

INVESTMENT BRANCH

~~SEPTEMBER 2006~~JULY 2007

INV97

1000 INVESTMENT POLICY

A. Investment Policy and Management Plan

EXECUTIVE SUMMARY

The California State Teachers' Retirement Board (Board) believes that to manage growth of assets in a prudent manner, it is necessary to establish a clear investment policy and a planning statement in the form of an investment management plan under which the Investment Branch will operate. The Board has sole and exclusive fiduciary responsibility to administer the investment assets in a manner that will assure the prompt delivery of benefits and related services to the plan participants and their beneficiaries. As a public pension fund, the California State Teachers' Retirement System (CalSTRS) is not subject to ERISA, which governs corporate pension plans. The CalSTRS investment decision-making criteria are based on the "prudent expert" standard, for which the ERISA prudence standards serve as a basis. Additionally, the California Constitution, Article 16, Section §17, and the California Education Code, Part 13 Teachers Retirement Law, Chapter 4, Section §22250 require diversification of risk across asset classes and minimization of employer costs.

The Investment Policy and Management Plan have been developed within the context of the significant events that have occurred during CalSTRS' eighty-five year history. The CalSTRS Investment Management Plan is updated to reflect the changes that have occurred in the investment policy and strategy as a result of implementing approved programs. In addition, the Investment Policy and Management Plan is updated to ensure that the factors that impacted initial decisions are still relevant in the current environment.

This document addresses general objectives governing the policies of the investment function and specific performance objectives. The general objectives are meant to provide a framework for the operation of the investment function. CalSTRS' performance objectives can be divided into objectives for the overall investment function and objectives for investment managers.

The asset allocation decision governs the allocation of CalSTRS' assets between public and private, and fixed income and equity. Strategic allocation of CalSTRS' assets is the most important factor in the determination of the realized total rate of return. The Board, Investments Staff, and the General Consultants worked together to create a variety of optimal asset allocation alternatives. The Board has adopted the desired targets and set tight ranges around those targets to control risk and ensure the proper allocation of the portfolio.

Strategic asset allocation targets are established within a variety of sub-asset categories to achieve the identified performance objectives. In conjunction with the overall asset allocation targets, sub-asset class level tactical ranges provide flexibility to adapt to changing market conditions.

Subsequent to the establishment of strategic asset allocation targets, an investment structure was designed to guide and direct investment decisions. Investment related issues addressed included:

1. The Funds' overall investment objectives, risk tolerance, and performance standards,

2. The relative amount of active and passive management within each asset class,

3. The relative amount of internal and external management,

4. The appropriate direct and indirect costs of each asset category, and

5. The appropriate reporting standards and time horizons.

Additionally, CalSTRS is committed to holding and managing securities investments in both the public and private markets and exercising the corporate governance rights that are a necessary part of that ownership. CalSTRS views these rights as plan assets and discharges its fiduciary duty solely in the interest of the plan participants and their beneficiaries."

STANDARD OF CARE

Under California Constitution, Article 16, Section §17, and the California Education Code, Part 13 Teachers Retirement Law, Chapter 4, Section §22250, the Board has the sole and exclusive fiduciary responsibility over the assets of the retirement system. The retirement board shall also have sole and exclusive responsibility to administer the system in a manner that will assure prompt delivery of benefits and related services to the members and their beneficiaries. The assets of the retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries, and defraying reasonable expenses of administering the system.

The members of the retirement board of the retirement system shall discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of, providing benefits to members and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. The Retirement Board's duty to its members and their beneficiaries shall take precedence over any other duty.

The CalSTRS Retirement Board shall discharge their duties with respect to the system 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.

GENERAL INVESTMENT OBJECTIVES

The main goal for The California State Teachers' Retirement System is to "maintain a financially sound Retirement System". Within this context and in conjunction with the State Constitution and State Education Code, the following general investment objectives are designed to establish a framework for the operation of the investment portfolio.

1. **Provide for Present and Future Benefit Payments.** CalSTRS' Investment Program shall provide liquidity to pay benefits to its participants and their

beneficiaries, in the amounts and at the times called for, through the investment of contributions and other fund assets, strive to meet the assumptions built into the actuarial model, and strive to maintain a fully funded pension system.

2. **Diversify the Assets.** Seek to diversify the assets to achieve the desired rate of return at a prudent level of risk. The asset structure must provide for diversification of risk between asset classes in order to manage the risk/return relationship through strategic asset allocation.

3. **The Reduction of CalSTRS' Funding Costs.** Within prudent levels of risk, the reduction of CalSTRS' funding costs shall be a consideration in the organization and structure of the Investment Portfolio.

4. **Maintain the Trust of the Participants and Public**. Manage the investment program in such a manner that will enhance the member and public's confidence in the CalSTRS Investment Program.

5. **Establish Policy and Objective Review Process** – A formal review of the CalSTRS Investment Policy and Management Plan will be conducted annually, with an updated financial projection developed every two years.

6. **Create Reasonable Pension Investments Relative to Other Pension Funds.** The selection of investment vehicles and policies will be judged against other private and public pension funds. Investment performance, asset management costs, staffing, and overall expenses will be compared to other public and corporate pension plans, with special emphasis on comparisons with other large public funds.

7. **Minimize Costs.** Management fees, trading costs, and other expenses will be aggressively monitored and controlled.

8. **Compliance with State and Federal Laws.** The Investment Program must operate in compliance with all applicable State and Federal laws and regulations concerning the investment of pension assets.

INVESTMENT GOALS

Within these general investment objectives, the Investment Committee has set forth near term goals for the Investment Portfolio. These goals are ranked and proportioned in accordance with the Investment Committee's priorities set in the 2006 Asset Liability Study. These goals help serve to define the overall risk and return objectives for the Portfolio and set the long-term asset allocation. By prioritization, they emphasize the Investment Committee's focus on long-term results with the willingness to accept short term volatility in order to achieve a higher outcome over many years.

1. **Strive to achieve the lowest average actuarial cost over each of the next 20 years** (43 percent weight)

2. **Achieve 100 percent fully funded status at the end of 30 years** (28 percent weight)

3. **Seek to avoid an actuarial cost spike over 30 percent of payroll during each of the next 20 years** (17 percent weight)

4. **Avoid having the funded status drop below 62 percent during the next 30 years** (12 percent weight)

INVESTMENT PERFORMANCE OBJECTIVES

The general investment objectives designed a framework for the operation of the investment function. The performance objectives can be divided into three components: 1) performance objectives for the overall Investment Portfolio, 2) performance objectives for each asset class, and 3) performance objectives for the individual investment managers within each asset class. CalSTRS incorporates all three levels of analysis in its monitoring of the Investment Portfolio performance.

In 2001, a survey of the Board members confirmed the Board's primary objective is to meet the actuarial assumptions and to strive to maintain a fully funded pension plan. Further, the Board reaffirmed its focus on a long-term investment horizon of 10 years. As a long-term pension plan, the Board emphasizes that the primary time horizon for measuring investment performance will be over a three, five, and ten year period rather, than quarter to quarter or year to year.

There are four performance objectives identified for the overall Investment Portfolio:

1. Relative to Strategic Asset Allocation Targets

2. Relative to Inflation

3. Relative to the Actuarial Rate of Interest

4. Relative to CalSTRS' Liabilities

The first objective identifies a comparative benchmark that reflects CalSTRS' unique asset allocation policy. This performance objective is a composite of the target weighting for each asset category multiplied by the performance benchmark's return for that category. This performance number is compared to the actual asset allocation and actual total rate of return. This comparison identifies the contribution or detriment to performance caused by manager performance, market timing, and tactical asset allocation decisions.

The inflation related objective compares the investment performance against the rate of inflation as measured by the Consumer Price Index (CPI) plus 3.5 percent. The Consumer Price Index is used in the calculation of the estimated salary increases for the members (teachers). The inflation measure provides a link to CalSTRS' liabilities.

The actuarial rate of interest is reviewed and monitored as a measure of the long-term rate of growth of CalSTRS' assets. The current actuarial rate of interest is 8.0 percent. When adopting the actuarial rate of interest, the Board anticipates the Investment Portfolio may achieve higher returns in some years and lower returns in other years.

The liability related performance objective recognizes that liabilities must be paid in full and in a timely manner. The liabilities are future claims of the CalSTRS' participants. The actuarial rate of interest is used to discount the future value of the CalSTRS' liabilities to calculate the funded ratio.

PERFORMANCE BENCHMARKS

To facilitate the periodic reporting to the Investment Committee and to provide a relative measure to gauge success, custom performance benchmarks are approved by the Investment Committee. The Investment Committee has also adopted the Benchmark Modification Policy to allow for the deletion of certain industries that met specific risk criteria from all benchmarks. The approved custom performance benchmarks are shown below:

Total Public Equity	Weighted blend of the Russell 3000 Index ex-Tobacco combined with the MSCI ACWI ex-U.S. Index ex-Tobacco
U.S. Equity	Russell 3000 Index ex-Tobacco
Non-U.S. Equity	MSCI ACWI ex-U.S. Index ex-Tobacco
Total Public Debt	(95%) Lehman Brothers U.S. Aggregate ex-Tobacco + 5% U.S. High Yield Cash Pay 2% Issuer Constrained Index ex Tobacco ~~(for Fiscal Year 2006 – 2007)~~
U.S. Core ~~Dollar Denominated~~	Lehman Brother U.S. Aggregate Index ex-Tobacco
U.S. Core Plus Debt	Lehman Brother U.S. Universal Index ex-Tobacco
High Yield Debt	Lehman U.S. High Yield. Cash Pay ex-Tobacco 2% Issuer Constrained ~~Cap~~ Index
Private Equity	Weighted blend of the NCREIF Property Index and the Custom Alternative Investment Index
Real Estate	NCREIF Property Index
Alternative Inv.	Custom Alternative Investment Index and the ~~Venture Economics~~ Private Edge Group (TPEG) Peer Index cumulative pooled internal rate of return data weighted by sub-asset type.

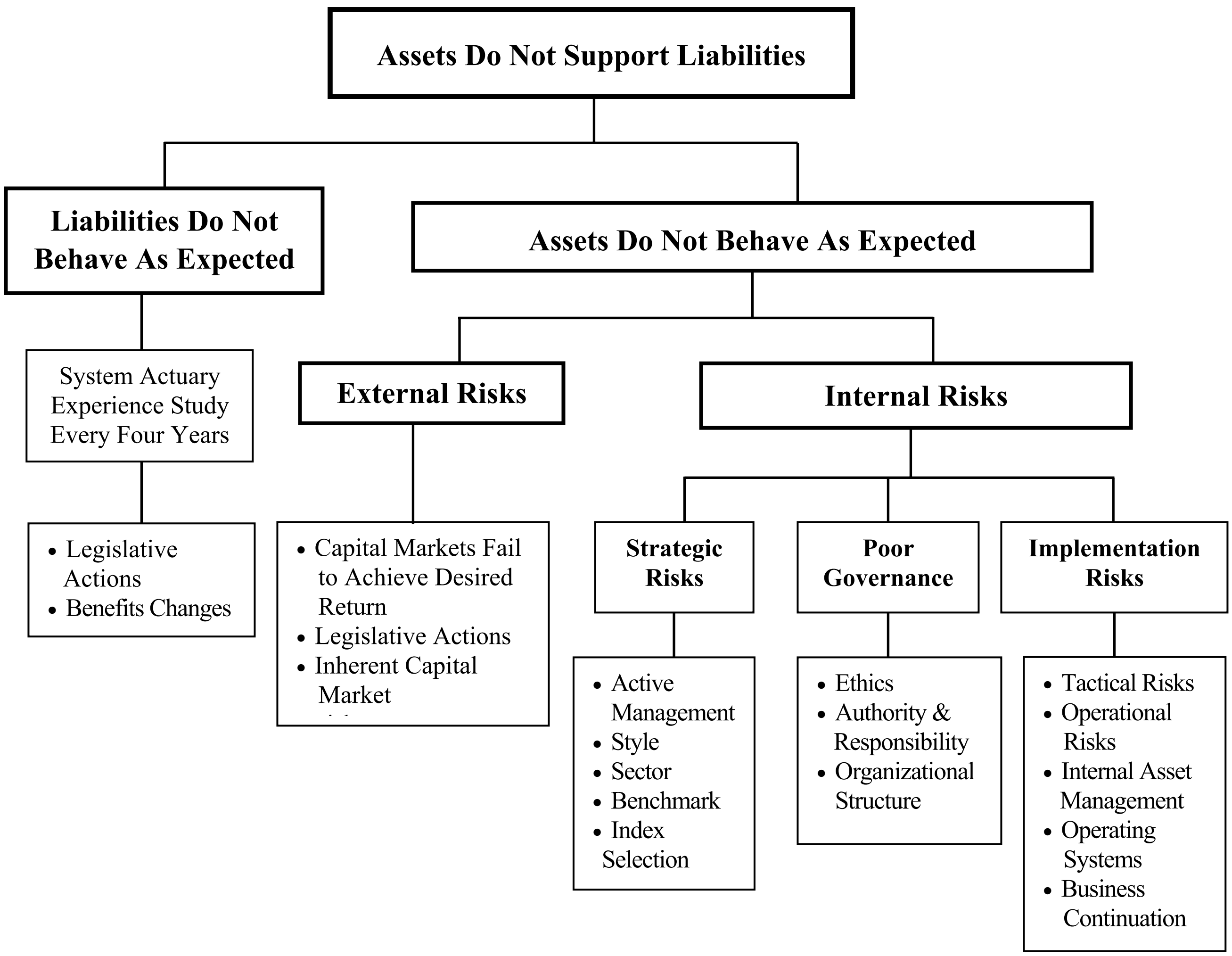
Blended indices are weighted based upon CalSTRS' target allocations to each respective index. Each investment manager, for U.S. and non-U.S. equity, fixed income, and currency hedging has an individualized benchmark designed to measure its performance relative to the objective identified in each manager's respective investment guidelines.

RISK CONSTRAINTS

The CalSTRS Investment Portfolio will be invested to maximize return at a prudent level of risk in accordance with the CalSTRS Investment Policy, the California Constitution, and the California Education Code.

RISK STANDARDS

With a few enhancements, CalSTRS has utilized the risk matrix *Statements of Key Investment Risk and Common Practices to Address Those Risks*, *June 2000*, which is endorsed by the NCTR[1], GFOA[2], and APPFA[3]. These standards promulgate the CalSTRS risk framework which is listed below:



[1] National Council on Teacher Retirement;
[2] Government Finance Officers Association
[3] Association of Public Pension Fund Auditors

External Risk - External risks are embedded and inherent within the capital markets. This policy defines the Fund's strategy and process to capture or, in turn, mitigate these risks.

Governance Risk - Governance risk is mitigated within the Board's Policy and the individual asset class policies. Roles and assignments are clearly stated in each policy.

Strategic Investment Risks & Implementation Risks - This Policy is designed to mitigate the strategic investment risks and implementation risks of the investment activity. A critical element to mitigate these risks is the asset allocation and sub-asset structure of each asset class. The Board has adopted target allocations and tight ranges to control and limit the strategic and tactical risks in the Portfolio. To control the active manager style, sector, index, and benchmark risks, the Board has delineated guidelines and structure through the asset allocation plan and equity manager policies and guidelines.

Geopolitical and Social Risks – CalSTRS Investment Portfolio operates in a unique and complex social-economic milieu, and the Board expects corporations in which securities are held to meet a high ethical and social standard of conduct in their operations which, in the long-term, will result in superior investment performance. Importantly, CalSTRS ownership of securities in a corporation does not signify approval of all of a company's policies, products, or actions. This Policy is intended to address the financial and administrative risks associated with corporate decisions that support Government endorsed genocide, as identified by the U.S. government, or that violate the CalSTRS 20 Risk Factors adopted by the Board (see Attachment A).

It is important to state that investments shall not be selected or rejected based solely on the basis of geopolitical and social risk factors. In fact, geopolitical and social risk factors can only be taken into consideration to the extent that such factors bear on the financial advisability of the investment; e.g., not investing in a corporation whose conduct demonstrates a negative effect on the corporation's financial viability. The extent of the responsibility of the System to engage in activity to address these issues will be determined by: 1) the number of shares held in the corporation, and 2) the gravity of the violation of CalSTRS policies.

When faced with a corporate decision that violates CalSTRS policies, at the direction of the Investment Committee or at the discretion of the CIO, the Investment Staff will directly engage corporate management to seek a change in corporate behavior that supports government endorsed genocide and/or that violates the CalSTRS 20 Risk Factors, a subset of the Investment Policy and Management Plan, in the following manner. First, CalSTRS will actively engage, in a constructive manner, corporate management whose actions are inconsistent with this Policy. All forms of engagement will be utilized (letter writing, meetings, participation in advocacy groups, media campaigns, proxy voting etc.) Second, after all reasonable efforts have been made to constructively engage management and there is a clear nexus between the corporate behavior and the CalSTRS Policy violation, and in the CIO's opinion, the corporate remedies are insufficient or non-responsive, CalSTRS will inform its active investment managers that, to the extent that suitable alternative investments are available and that their inclusion in the Portfolio would result in no diminution in portfolio return or increase in risk, the managers shall invest in said alternative(s) until such time as the violations of this policy cease. Notice of this action will be reported to the Investment Committee in writing. Passive portfolios will cease to acquire shares of companies in violation of this Policy until such time as the violations of this Policy cease. Third, upon remedy of the policy violation, CalSTRS will inform the active investment managers and passive managers that the securities can be purchased and report such action in writing to the Investment Committee.

RISK BUDGET

The CalSTRS Asset Allocation Plan is developed within the concept of a risk budget. In CalSTRS view, the public markets of U.S. equity, U.S. fixed income and, to a lesser extent, non-U.S. equity, are fairly efficient markets. Information is disseminated quickly and new information is quickly absorbed into the market prices of a given security. As a result, CalSTRS utilizes a more passive management style. The less efficient the investment the greater exposure to active management and hence the larger exposure to style, sector, and management risk.

In the less liquid and inefficient asset classes of high yield fixed income, alternative investments, and real estate, the Fund utilizes a complex active management style to capture the greater opportunity set offered by the larger risks.

TOTAL FUND RISK

Liquidity Risk

No more than 30 percent of the total fund shall be invested in instruments that are not regularly publicly traded on a daily basis.

Maximum Investment

No more than 3 percent of the total fund shall be invested or exposed to any one security or corporation, with the exception of United States Treasury or Agency Obligations. No more than 15 percent of any asset class maybe invested in any one security, with the exception of United States Treasury or Agency Obligations.

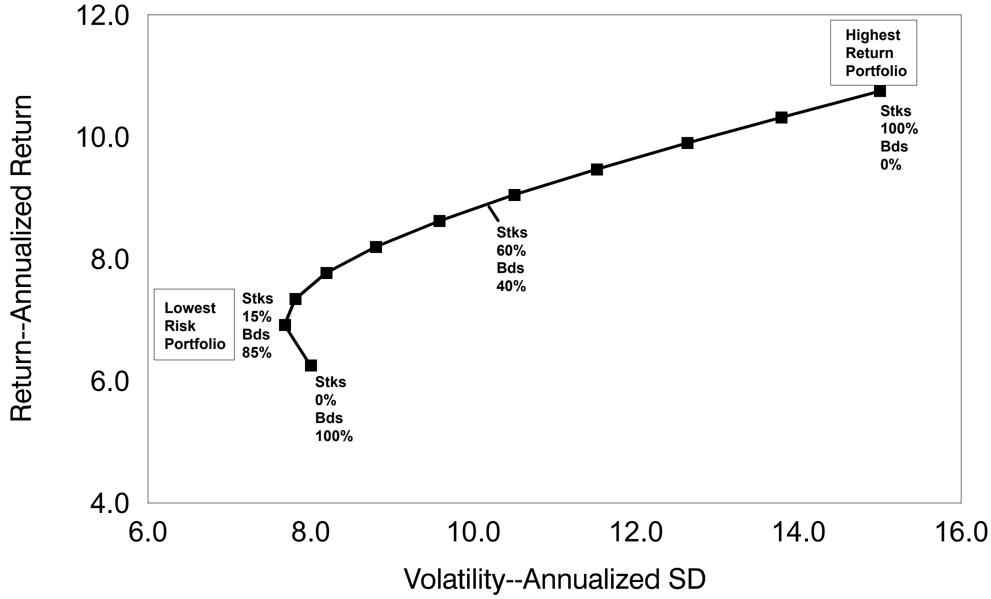
ASSET ALLOCATION

A Review of Asset Allocation

A diversified investment portfolio consists of multiple asset classes whose investment returns respond differently to varying economic scenarios. Diversified portfolios are attractive because the combination of various asset classes can reduce expected risk while maintaining expected return. Combining assets having different return patterns can produce a portfolio that has much lower volatility (risk) than any individual asset while producing returns that are competitive. Maximizing return while reducing risk increases the probability of meeting a specified return objective.

Efficient frontier analysis is a widely accepted method of analyzing the tradeoff between risk and return across portfolios having different mixes of assets. Through this quantitative technique (which relies on several critical assumptions), an optimization process identifies portfolios of assets providing the highest expected return, given a specified level of risk. The procedure continues to determine ideal portfolios at varying levels of risk until an entire range of ideal portfolios (termed an "efficient frontier") is identified below.

An Efficient Frontier for a Stock and Bond Portfolio



Asset Class	Expected Annual Return	Expected Annual Volatility
Domestic Stocks:	9.25%	22.0%
Domestic Bonds:	5.75%	8.0%
Stock-Bond Correlation:	0.25	

In selecting certain combinations of assets (such as domestic equity and fixed income) any rational investor will always consider the tradeoff between changes in return and changes in risk. At a minimum, investors should expect to receive a higher rate of return for an incremental increase in investment risk.

Each mix of assets is, in itself, a unique asset having its own return vs. risk tradeoff. As highlighted above, these asset portfolios can exhibit return patterns that differ greatly from any underlying asset. Depending on the extent of how individual assets move in relationship to each other (measured by correlation), certain mixes of assets could enhance the return-risk tradeoffs over investing in any single asset.

The curve-point in the curve in the efficient frontier chart shows when adding a certain proportion of stocks ceases to add value (simultaneously adding return and reducing risk). This point comes when stocks become 13 percent of the portfolio. Beyond this point, the only way to increase return is to increase risk incrementally. For those points along the line past the curve point, the only decision one has to make is how much incremental risk one is willing to accept.

The only way to increase return will be to accept incremental increases in investment risk (uncertainty). The line between the curve-point and the "100% Stocks" point is termed the "efficient frontier." Any point along the efficient frontier represents that unique portfolio that offers the highest return for the given amount of risk.

The Asset Allocation Process

The key goal of the asset allocation process is to develop an asset allocation policy that maximizes the likelihood that an investment portfolio's assets will, over the planning horizon, fund plan benefits.

<u>Steps Involved in Setting Asset Allocation Policy</u>

Overview and Planning Steps

1. Review rationale for policy.
   A. Importance of diversification

2. Review financial condition of plan.
   A. Assets versus projected liabilities (balance sheet)
   B. Projected contributions versus projected benefits

Investment Related Steps

3. Review rationale for investment asset classes in light of plan financial requirements.

4. Develop expectations for asset class investment performance (returns, risks, correlations).

5. Identify investor-specific constraints that might limit investment strategies (e.g., liquidity).

6. Create model portfolios, incorporating objectives, assumptions, and constraints.

7. Isolate investor-specific model portfolio to represent an investor's asset allocation policy.

8. Perform additional sensitivity analyses to quantify impact of specific issues.
   A. Adjustments to required rate of return
   B. Shift in financial condition of the Plan due to funding

Once the rationale for undertaking an asset allocation study is understood, a review of the financial condition of the plan becomes imperative. A key component of reviewing a plan's financial condition is studying the actuarial requirements of the plan. These include the future liabilities and expected cash flow of contributions less benefit payments. For example, over the next decade, CalSTRS expects to see a negative cash flow as more participants retire. These requirements represent the plan's long-term liabilities and, when combined with the plan's investment portfolio, constitute a pension plan's balance sheet.

Understanding what factors (such as changes in interest rates, benefit structures, and plan demographics) influence these liabilities is important. Changes in these and other underlying factors may, in fact, alter a plan's liability structure. Such shifts could, in turn, impact the plan's financial condition. CalSTRS' were studied and considered as part of this asset allocation review.

Selecting Asset Classes for Portfolio Investment

As discussed earlier, there are three components required to model investment returns: 1) asset class expected returns, 2) asset class risks, and 3) correlations among asset classes. Investment consultants develop these components, which are then used to develop efficient frontiers quantitatively. CalSTRS' current long-term expected returns and risks for various assets classes range from 4.5 percent to 12.5 percent per year.

Total Return and Risk Estimates *
Assumed inflation level: 2.5% per year
Adopted in February 2006

Asset Class	**Expected Annual Return**	**Expected Risk (Annlzd. SD)**[4]
Cash	3.50	2.0
Domestic Bonds	4.75	6.5
TIPS (Inflation protected securities)	4.50	6.0
U.S. Stocks	9.00	18.5
Non-U.S. Stocks	9.00	19.0
Alt. Investments	12.50	35.0
Real Estate	7.50	13.5

Correlation among the asset classes:

	U.S. Equity	Non-U.S. Equity	Fixed Income	TIPS	Alt. Inv.	Real Estate
U.S. Equity	1.00					
Non-U.S. Equity	0.70	1.00				
Fixed Income	0.25	0.10	1.00			
TIPS	-0.40	-0.40	0.50	1.00		
Alt. Inv.	0.65	0.60	0.10	0.00	1.00	
Real Estate	0.50	0.40	0.50	0.50	0.15	1.00
Liquidity	0.10	0.00	0.40	0.40	0.10	0.30

* *These return and volatility estimates are only for asset allocation modeling purposes. The Investment Committee has not authorized their use for liability modeling purposes.*

[4] SD – Standard Deviation

These return and volatility estimates reflect several basic relationships:

1. Investors or lenders of capital require an incremental real return premium as a reward for making capital available.

2. Equity-oriented investment should, over long periods, produce return premiums that are higher than their fixed-income counterparts.

3. The return assumptions for the publicly traded asset classes do not account for added value opportunities within each asset class.

Review of Asset Allocation Policy

Over the last ~~fifteen~~ twenty years, CalSTRS' Asset Allocation Policy has shifted modestly.

CalSTRS Asset Allocation Policy Trends (in %)

Asset Class	**Long-term ***	**~~2006~~ 2007**	**1999**	**1995**	**1993**	**1986**
U.S. Equities	40	~~41~~ 42	38	34	33	40
Non-U.S. Equities	20	~~20~~ 21	25	18	18	15
Public Equity	60	~~61~~ 63	63	52	51	55
Real Estate	11	~~6~~ 9	5	5	10	10
Alt. Investments	9	~~6~~ 7	5	3	7	5
Total Equity	**80**	~~**73**~~ **79**	**73**	**60**	**68**	**70**
Global	0	0	0	5	1	0
Fixed-Income	20	~~26~~ 21	26	34	30	30
Cash	0	~~1~~ 0	1	1	1	0
Stable Assets	**20**	~~27~~ **21**	**27**	**35**	**31**	**30**
Total	100	100	100	100	100	100

* *The long-term target was established in July 2006.*

CalSTRS' Investment Policy has remained consistent from an equity/stable asset allocation viewpoint. In 1986, CalSTRS had a strategic allocation of 70 percent equities and 30 percent stable assets. In 1997, CalSTRS' Board adopted and reaffirmed a policy of 73 percent equity and 27 percent stable assets. During the 2006 Asset Liability Study, the Investment Committee approved a shift to a long-term plan of 80 percent equity and 20 percent stable assets to optimize the likelihood of success in meeting the investment goals listed at the beginning of the Policy.

STRATEGIC ASSET ALLOCATION

The System's asset allocation strategy utilizes a design for today's needs, while anticipating the future capacity and growth of the Investment Portfolio. A strategic asset allocation target for public equity, private equity, liquidity, and public debt was last established in 2001 after reviewing a comprehensive asset allocation analysis completed by Pension Consulting Alliance. In conjunction with the strategic target, a range for each asset category has been established to provide flexibility designed to reduce rebalancing costs and allow flexibility to adapt to changing market conditions.

To control the risk and return relationship, each asset category should be rebalanced to the strategic target. Rebalancing latitude is important and can significantly affect the performance of the Portfolio. Blind adherence to narrow ranges increases transaction costs without a documented increase in performance. A rebalancing range that is too wide may cause undesired changes in the asset allocation. The range is plus or minus three percent around the strategic target for the major asset categories (domestic equity, international equity, and fixed income). The range is plus or minus two percent around the strategic target for the other asset categories (private equity and cash). The two or three percent range refers to the market value of the total investment portfolio.

CalSTRS Long-term Policy Target and Ranges

	Long-Term Target	**Range**
U.S. Equity	40%	37% to 43%
Non-U.S. Equity	20%	17% to 23%
Total Public Equity	60%	54% to 66%
Alternative Investments	9%	4% to 11%
Real Estate	11%	4% to13%
Total Equity	**80%**	**75% to 83%**
Fixed Income	20%	17% to 23%
Cash	0%	0% to 2%
Total Public Debt	**20%**	**17% to 25%**
Total Asset Allocation	**100%**	

Please note that the allocated, but not funded, portion of Alternative Investments and Real Estate will be invested in accordance with the Strategic Asset Allocation Plan.

To manage the shift to the new allocation targets established in 2006, the Investment Committee has developed a step approach. The target asset mix will be established at the start of each Fiscal Year.

The respective ranges of +/- three percent for U.S. equity, non-U.S. equity, and fixed income will apply to each year's target. The range for alternative investments, real estate, and liquidity will be zero to + two percent of the long-term target for the entire plan.

Asset Class	FY 06-07	Step 2	Step 3	Step 4	Long-term targets
U.S. Equity	42%	42%	42%	41%	40%
Non-U.S. Equity	21%	21%	21%	21%	20%
Alternative Investments	6%	7%	7%	8%	9%
Real Estate	7%	8%	9%	10%	11%
Fixed Income	23%	22%	21%	20%	20%
Liquidity	1%	0%	0%	0%	0%

Rebalancing Procedure: The asset mix may deviate from the target as shown above. Deviations greater than described may require rebalancing within the range. The range around the allocation targets is intended to keep the actual allocation close to the target while minimizing the transaction costs that result from rebalancing.

1. The Board delegates to the Chief Investment Officer authority to rebalance the asset allocation across asset classes when market values of assets fall outside policy ranges. Rebalancing will be accomplished first using normal cash flows and second through reallocation of assets across asset classes. The timing of the re-balancing will be based on market opportunities and the consideration of transaction costs, and therefore need not occur immediately. The global financial markets and fund conditions are dynamic, not static. The optimum re-balancing will depend on market volatility and costs. The above policy ranges are long-term and may deviate in the short-term as a result of funding schedules, interim market movements, and market impact costs of implementation.

2. Idle cash will be allocated to asset classes and investment managers based on target allocations.

3. In cases of major rebalancing, the Board authorizes the Chief Investment Officer to shift assets in a timely, prudent, and cost efficient manner to maintain the policy ranges established by the Board. The Board further authorizes the Chief Investment Officer to utilize futures, forward contracts and options for a temporary period, in order to maintain target range exposure in asset classes and to reduce transaction costs that would otherwise be incurred by the buying and selling of actual securities. Major rebalancing can occur to bring asset classes within their target ranges or when there is transition between investment managers. The CIO will promptly report any major re-balancing to the Board at the next Investment Committee meeting.

4. Rebalance Within Asset Classes: the Board authorizes the Chief Investment Officer to rebalance within each asset class by first using normal cash flows and second through the reallocation of assets within asset classes. This reallocation will be based on individual policies and guidelines for each asset class.

5. Because of appraisal valuation and the illiquid market nature of appraised assets, exceeding the maximum policy range allocation will trigger a conscious review by the Chief Investment Officer, the specialty and General Consultant, and the Investment Committee rather than an automatic rebalancing.

INVESTMENT STRUCTURE

Investment structure guides and directs present and future investment decisions in a prudent manner. The structure is also used by CalSTRS to mitigate the strategic investment risk within the portfolio. Investment related issues addressed included:

1. The relative amount of active and passive management,
2. The relative amount of internal and external management,
3. The appropriate direct and indirect costs of each asset category, and
4. The appropriate reporting standards and time horizons.

ASSET ALLOCATION STRUCTURE

1. Based on academic studies, it has been determined that 91 percent of the total return is attributable to the asset allocation decision. Consequently, each asset category shall remain within the tactical range approved in the Strategic Asset Allocation adopted by the Board.

2. Control of the cash flow is critical to the success of long-term investment strategies. Estimated cash flows shall be provided to the Investment Committee in conjunction with the biennial Actuarial Study.

3. No less than quarterly, the Chief Investment Officer will complete a report identifying the salient aspects of the investments, including a section on compliance with approved asset allocation targets.

COPORATE GOVERNANCE POLICY

CalSTRS has developed robust policies and standards for fair and open governance of corporations. As long-term owners and lenders to corporations around the world, it is the Fund's duty to protect those assets through the pursuit of good governance and operational accountability. More detailed information about the program can be found in the Corporate Governance Investment Policy.

EQUITY STRUCTURE

1. The U.S. Equity Portfolio will be managed using both passive (70 percent target) and active (30 percent target) strategies. The structure of the Active Portfolio will follow the general percentage breakout of the Russell 3000 Index between large and small capitalization and value and growth characteristics. The passive component may have both internal and external managers. The active component will be managed externally.

2. The non-U.S. equity markets are assumed to be more inefficient, allowing active management to add value. The target will be an equal amount of active management (50 percent) and passive management (50 percent) strategies. Emerging markets will be utilized to enhance return and diversification and will be 100 percent actively managed. The passive component may have both internal and external managers. The active component will be managed externally.

3. More detailed information and standards about the asset class can be found in the Global Equity Investment Policy.

FIXED INCOME STRUCTURE

1. The Fixed Income Portfolio shall be comprised of investment grade and non-investment grade securities, U.S. dollar based and non-U.S. dollar based securities. The Portfolio will target 80 percent using an enhanced indexing strategy, while 20 percent will be externally actively managed using a broader universal fixed income and high yield securities opportunity set. The Internally Managed Portfolio will emphasize tracking the risk characteristics of the performance benchmark.

2. Short term fixed income / liquidity and cash securities, including the cash portion of equity portfolios, shall be managed internally with emphasis on safety and liquidity. The Portfolio shall be comprised of investment grade securities, A1/P1 rated short-term debt, and other appropriate securities as approved in the policies and procedures.

3. More detailed information and standards for the asset class can be found in the Fixed Income Investment Policies.

CURRENCY MANAGEMENT STRUCTURE

1. The Currency Management Program overlays CalSTRS total exposure to foreign currencies from the U.S. Equity, the Alternative Investments, and the Real Estate Portfolios. The program structure is 80 percent internally managed, with a primary focus on defensive hedging in periods of a strong dollar, with opportunity for cross hedging to add value. External active currency overlay managers will be used for 20 percent of the overall currency exposure. These managers may actively shift currency exposure to add value to the Portfolio.

2. More detailed information about the program and structure can be found in the Currency Management Policy.

ALTERNATIVE INVESTMENT STRUCTURE

1. The Alternative Investment Portfolio will be comprised of limited partnerships and co-investments focusing on commitments to domestic and non-U.S. partnerships as identified in the Alternative Investment Policy. An Alternative Investment Advisor and Staff will analyze each partnership and conduct appropriate due diligence with the objective of achieving upper quartile performance, as identified by Venture Economics.

2. Alternative Investments have substantial fees and costs; consequently, emphasis will be placed on negotiating, monitoring, and controlling the direct and indirect costs of each limited partnership investment.

3. More detailed information and standards for the asset class can be found in the Alternative Investments Policy.

REAL ESTATE STRUCTURE

1. The Real Estate Portfolio will be comprised of direct real estate investments, joint venture investments, and commingled funds (opportunistic funds) with adopted targets of 50 percent to core and 50 percent to higher-risk tactical investments. Leverage maybe applied within the constraints set forth in the Real Estate Investment Policy.

2. To more closely align the interests of the plan sponsor and real estate manager, emphasis will be placed on negotiating, monitoring, and controlling the cash flow (both income and expense) associated with each property.

3. More detailed information and standards for the asset class can be found in the Real Estate Policy.

ADDITIONAL INVESTMENT PROGRAMS & POLICIES

CalSTRS also maintains programs and policy statements for the following additional investment programs:

1. California Investments – Urban & Rural Underserved Markets

2. Securities Lending

3. Credit Enhancement

4. Member Home Loan Program

5. Directed Brokerage Program

6. Benchmark Modification

Additional information and standards for each can be found in their respective investment policies statements.

REPORTING

On at least a quarterly basis, the Chief Investment Officer will prepare a comprehensive report on the Investment Program to include the asset allocation, movement of assets, System cash flow, and the market value of each Portfolio. Semi-annually, the General Consultant and CIO will preview and present the investment performance of the Systems' Investment Portfolio.

Approved July 2002
Revised Capital Market Assumptions December 2002
Revised Asset Allocation Plan November 2003
Revised November 2003
Revised December 2003
Revised December 2005
Revised Capital Market Assumptions February 2006
Revised June 2006
Revised July 2006
Revised for new asset allocation targets September 2006
Revised for new asset allocation targets September 2007

CALSTRS 20 RISK FACTORS
Monetary Transparency Free and open monetary and financial data, and observance of codes
Data Dissemination Whether or not a country is a member of the IMF (or similar organization) and satisfies the conditions for access, integrity, and quality for most data categories
Accounting Whether or not the accounting standards are formulated in accordance with International Accounting Standards or the U.S. Generally Accepted Accounting Principles
Payment System: Central Bank Whether the activities of the central bank encompass implementing and ensuring compliance with principles and standards which are established to promote safe, sound, and efficient payment and settlement systems
Securities Regulation Compliance with IOSCO objectives, which provide investor protection against manipulation and fraudulent practices
Auditing Whether or not the country uses International Standards on Auditing in setting national standards
Fiscal Transparency Publication of financial statistics. Sound standards for budgeting, accounting, and reporting
Corporate Governance Whether or not the government recognizes and supports good corporate governance practices. Whether they generally adhere to OECD principles
Banking Supervision Endorsement/compliance with the Basle Core Principles. An endorsement includes an agreement to review supervisory arrangements against the principles and bring legislation in line with the principles where necessary.
Payment System: Principles Whether country complies with the 10 Core Principles for Systemically Important Payment Systems. Operational reliability, efficiency, real time settlement, final settlement in central bank money. Whether rules and procedures are clear and permit participants to understand the financial risks resulting from participation in the system
Insolvency Framework Bankruptcy reform. Insolvency legislation
Money Laundering Whether or not a country has implemented an anti-money laundering regime in line with international standards. Compliance with the 40 recommendations in the Financial Action Task Force (FATF) on Money Laundering. Member of FATF
Insurance Supervision Regulatory framework in line with International Association of Insurance Supervisors (IAIS) Principles

Respect for Human Rights • Judicial System • Arbitrary or Unlawful Deprivation of Life • Disappearance • Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment • Arbitrary Arrest, Detention, or Exile • Arbitrary Interference with Privacy, Family, Home, or Correspondence • Use of Excessive Force and Violations of Humanitarian Law in Internal Conflicts • Governmental Attitude Regarding International and Non-Governmental Investigation of Alleged Violations of Human Rights
Respect for Civil Liberties • Freedom of Speech and Press • Freedom of Peaceful Assembly and Association • Freedom of Religion • Freedom of Movement Within the Country, Foreign Travel, Emigration, and Repatriation
Respect for Political Rights • The Right of Citizens to Change Their Government
Discrimination Based on Race, Sex, Disability, Language, or Social Status • Women • Children • Persons With Disabilities • National/Racial/Ethnic Minorities • Indigenous People
Worker Rights • The Right of Association • The Right to Organize and Bargain Collectively • Prohibition of Forced or Bonded Labor • Status of Child Labor Practices and Minimum Age for Employment • Acceptable Conditions of Work • Trafficking in Persons
Environmental • Air Quality • Water Quality • Climate Change • Land Protection
War/Conflicts/Acts of Terrorism • Internal/External Conflict • War • Acts of Terrorism • Party to International Conventions and Protocols

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

INVESTMENT RESOLUTION

WHEREAS, the Electorate of the State of California in November, 1992 amended Section 17 of Article XVI of the State Constitution by approval of Proposition 162; and

WHEREAS, the Teachers' Retirement Board embraces the concepts of the revised Section 17 of Article XVI of the State Constitution, which states that the Retirement System shall have sole and exclusive fiduciary responsibility over the assets of the public pension or retirement system, a copy of which is attached and incorporated in this Resolution; and

WHEREAS, the Teachers' Retirement Board has approved the Investment Plan which provides for wider diversification of the System's investment assets; and

WHEREAS, the Teachers' Retirement Board on the advice of its consulting actuary and the pension fund consultant has adopted the objective of achieving a long term annualized investment return of 3.50% in excess of the rate of inflation; and

WHEREAS, in the exercise of its fiduciary responsibilities the Board has considered and approved various classes of investments for the Teachers' Retirement Fund; therefore it is

RESOLVED, that the following investment classes are authorized if deemed prudent at the time of purchase:

Fixed-Income Securities

Dollar denominated fixed income securities as authorized by the Investment Management Plan and Fixed Income Portfolio Policy Manual, including, but not limited to:

U.S. Treasury (direct or guaranteed)
U.S. Government Agencies
U.S. Government-Sponsored Corporations
U.S. corporations (including convertible obligations and private placements not registered with the Securities and Exchange Commission)

Government securities issued by countries contained in the Salomon Brothers World Government Bond Index

Non U.S. corporate issues rated "A" or higher by S&P or Moodys or an equivalent credit rating agency in countries contained in the Salomon Brothers World Government Bond Index

Mortgage Loans

(1) Notes secured by first mortgages or Deeds of Trust on single family residential property located in the United States if issued by or through a U.S. Government program such as GNMA, FHA, VA, FNMA and FHLMC; or

Originated, issued and serviced by banks, savings and loan associations or mortgage bankers.

(2) Notes secured by first mortgages or other senior encumbrances on suitable commercial, industrial and multi-family properties located in the United States which are insured through a U.S. Government program, or if not insured, meet the standards and specifications as approved by the Retirement Board.

Equity Securities

All equity securities, including listed securities that exhibit characteristics of equity securities traded on the local market(s).

Domestic equity securities consisting of all stocks domiciled in the U.S. plus eligible securities including ADRs of international securities traded on the U.S. and Canadian exchanges.

International securities consisting of issues traded on the exchanges of all countries contained in the MSCI All Country World Index ex US.

Derivatives including but not limited to stock futures and options contracts, warrants, convertible securities, and swap agreements.

Shares of diversified management investment companies (Mutual Funds) registered under the Investment Company Act of 1940, provided they are classified as equity funds.

Units of participation in commingled Index Funds or trusts.

NOTE: Provided that equity investments in any one company may not exceed 15% of the common stock shares outstanding and that no single common stock investment may exceed 2% of the assets of the Teachers' Retirement Fund based on cost.

Real Estate

Real Property investments as authorized by the Investment Management Plan and Real Estate Policies and Procedures.

Alternative Investments

Limited partnership investments in equity of fixed income securities as defined in the Alternative Investment Policies and Procedures and as authorized by the Investment Committee to include but not limited to:

Venture Capital Funds

Mezzanine Funds

LBO/MBO Funds

Other Investments

Purchase of other types of investments may be made only with advance approval of the Investment Committee of the Teachers' Retirement Board, including, but not by way of limitation:

Stock options (other than covered options), futures contracts in stocks, index funds and fixed-income securities, and interest rate futures.

Advance approval of the Investment Committee or its designates may be obtained by authorization for individual securities, or for a particular class of investments, or for specified investment managers of the Teachers' Retirement Fund.

RESOLVED further that all investments shall be made with the standards of care, skill, prudence and diligence prescribed in the revised Section 17 of Article XVI of the State Constitution. These tests will involve, importantly, full consideration of proper diversification of investments, adequacy of reliable information for analysis of investments, and suitability for the requirements of the Teachers' Retirement Fund. The Board endorses the principle that prudency of individual investments shall be judged in the context of the total Retirement Fund portfolio;

RESOLVED further, that cash reserves of the System are to be managed for the safety and convenience of the Teachers' Retirement Fund, in investments which are considered to be prudent money market instruments by internal investment managers;

RESOLVED further, that the services of at least one external independent organization (performance evaluator) will be retained to assess the investment results of portfolio managers and to compare such results with those of similarly situated institutions and such other standards of measurement as the Investment Committee deems appropriate;

RESOLVED further, that investments now held which no longer qualify for purchase under this Resolution may be retained if qualified under the Resolutions existing at their respective dates of acquisition;

RESOLVED further, that this Investment Resolution rescinds and replaces all previously adopted Investment Resolutions.

Adopted by the Teachers' Retirement Board on October 19, 1984
Revised on April 19, 1985
Revised on December 19, 1986
Revised on September 9, 1993
Revised on May 11, 1994
Revised July 10, 2002

This page left blank intentionally.