California State Teachers' Retirement System Annual Report Regarding Expenditures for External Investment Advisors Investments

December 31, 2010

Introduction

Item 1920-002-0835 of the annual Budget Acts enacted beginning 1995 requires the California State Teachers' Retirement System (CalSTRS) to report to the Legislature: 1) The final expenditures for external investment advisers, made during the prior fiscal year and, 2) A revision of the budget act's estimate of expenditures for external investment advisers, including an accounting and explanation of the changes, and the proposed external investment adviser expenditures for next fiscal year. Also to be included in the reports:

- A summary and comparison of externally managed portfolios, internally managed portfolios, and the total fund;
- A description of actions to be taken to ensure that any future expenditures for outside advisors will result in a greater return on investments, including costs for these advisors, than if in-house advisors were used; and
- A listing of adviser contracts in effect and approved for the future.

This legislative report is submitted in compliance with that direction and covers external investment management fees paid in FY 09-10 and revisions to the estimated external investment management fees paid in FY 10-11 and forecasts the likely fees for FY 11-12. Questions on this Legislative Report should be directed to Berman Obaldia, Director of Governmental Affairs and Program Analysis, (916) 414-1977.

Final 2009-10 Expenditures for External Investment Advisors

As of June 30, 2010, the CalSTRS portfolio held $129.3 billion in investments. In mid October 2010, CalSTRS assets averaged $130 billion. CalSTRS internally manages 30 percent of those assets and hires external managers for the remaining 70 percent. CalSTRS also hires firms to manage discrete portions of the portfolio. These investment managers are under personal service contracts and are broken out in the summary by those asset classes.

Over the past seven years, the CalSTRS Investment Committee has approved hiring more firms to help develop a Developing Manager Program which reaches small emerging investment managers. In addition, CalSTRS has expanded the use of active investment management at a higher fee structure with the goal of generating a higher, overall return. Lastly, over the past six years, CalSTRS has also expanded the number of investment areas to include equity investments in emerging markets, debt investments in global fixed income, and currency managers.

1) SUMMARY OF EXTERNALLY MANAGED PORTFOLIOS

A complete summary of all investment managers by asset class is listed in Attachment 1. The external investment manager cost of the Total Portfolio for FY 09-10 is $129,595,836.40. According to an international cost comparison universe, CalSTRS operates a lower cost investment fund compared to large pension peers and operates well below the cost of other large California pension plans.

Attachment 2 provides a listing of all investment managers. Just like Mutual Funds, professional institutional investment services are very expensive, yet the net results are highly variable. There are no guarantees on Wall Street and investing is a very complex and challenging endeavor. Not surprising, some of CalSTRS investment managers have outperformed, while others underperformed.

The Budget Act requires a comparison between internal and external investment management. For example, it costs roughly one-tenth the cost to manage money with CalSTRS investment staff as compared to external firms. Also, CalSTRS staff is under the State Government system and subject to State personnel rules and procurement rules, and the Government system is not an efficient business model to run most or all of the investment assets. As a result, CalSTRS attempts to manage as much as is prudent and in as many styles as is prudent with internal staff. If CalSTRS was given autonomy from the state rules, similar to the University of California Retirement System, then CalSTRS could dramatically reduce investment costs.

CalSTRS spends $11 million to manage approximately one-third of the assets in-house. As noted previously, it costs $130 million to manage the 70 percent of the assets that are managed by external firms. Therefore, the total investment manager fees for the system are $141 million. It is difficult to compare the returns since external firms fulfill different investment mandates and in different asset classes compared to the internal strategies.

2) DESCRIPTION OF ACTIONS TO BE TAKEN TO ACHIEVE GREATER RETURNS

In July of each year, CalSTRS Investment Committee adopts business plans for each segment of the Investment Portfolio. The goal of CalSTRS is to achieve greater investment results; therefore, the business plans outline those exact plans. Attachment 3 includes the Investment Branch Business Plans for Fiscal Year 09-10.

3) LISTING OF ADVISER CONTRACTS IN EFFECT AND APPROVED FOR THE FUTURE

Attachment 4 outlines the various investment advisors/consultants in effect and under annual retainer for the future year. CalSTRS Investment Committee retains a general investment consultant and two specialty consultants. CalSTRS staff retains several firms to assist with management and guidance of the investment portfolio; some are paid an annual retainer while most are paid on an hourly basis for specific projects.

Estimate of 2010-11 Expenditures for External Investment Advisors

In the fall of 2008, stocks around the world suffered a meltdown on par with the historic declines of 1987 and even 1929. Since the majority of external investment managers fees are based upon assets under management, those fees will decline along with the drop in assets. Given the extreme volatility of the global financial markets both here in the U.S. and across the globe, it is more difficult than ever to forecast where the asset value may move in FY 10-11 and FY 11-12. CalSTRS internally manages 30 percent of the portfolio assets and hires external managers for the remaining 70 percent. CalSTRS also hires firms to manage discrete portions of the portfolio. These investment managers are under personal service contracts and are broken out in the summary by those asset classes.

A. REVISION OF THE BUDGET ACT'S ESTIMATE OF EXPENDITURES

In the FY 10-11 Budget, CalSTRS estimated investment manager costs to be $139,531,737. This has been revised down based on the decline of assets from the 2008 financial crisis.

B. PROPOSED EXTERNAL INVESTMENT ADVISER EXPENDITURES FOR FY 10-11

Based upon the value of the investment portfolio at December 2010, we can estimate the expected size of the portfolio over the next 20 months if we experience a normalized investment climate. Unfortunately, financial markets are never "normalized" and year to year they do not match the long-term average return. All financial markets trade within a wide standard deviation, especially in one year time periods.

1) SUMMARY OF EXTERNALLY MANAGED PORTFOLIOS

CalSTRS estimates the external investment manager costs for FY 11-12 will be $152,089,116 million, internal management costs will be $17,737,960, and the Total Fund costs will be $181,560,006. It should be noted Total Fund costs additionally includes the cost of legal services, custodian services, and investment research.

The most effective way to compare investment costs is to calculate the basis point cost per dollar invested. This term is also used extensively by the Mutual Fund industry to help investor compare costs factors. Our external investment managers cost, on average, 18 basis points. This compares with the cost of internal management at 1 basis point. In other words, internal management is 18 times more cost effective than hiring external investment managers.

The CalSTRS Investment Committee would like to manage more assets internally than hire external firms. However, the regulations on a State Agency make it very difficult to attract and retain the qualified talent and compete with Wall Street investment management firms.

2) DESCRIPTION OF ACTIONS TO BE TAKEN TO ACHIEVE GREATER RETURNS

Annually, in July of each year, CalSTRS adopts business plans for each segment of the Investment Portfolio. The entire goal of CalSTRS is to achieve greater investment results; therefore, the business plans outline those exact plans. Attachment 5 is the Investment Branch Business Plans for Fiscal Year 10-11.

3) LISTING OF ADVISER CONTRACTS IN EFFECT AND APPROVED FOR THE FUTURE

Attachment 6 outlines the various investment advisors/consultants in effect and under annual retainer for the future year. CalSTRS Investment Committee retains a general investment consultant and three specialty consultants. The Investment staff retains several firms to assist with management and guidance of the investment portfolio; some are paid an annual retainer while most are paid on an hourly basis for specific projects.

State Teachers Retirement Fund

Teachers' Retirement Fund Schedule of Investment Expenses by asset class for the year ended June 30, 2010.

FY 2009-2010

External Portfolio Manager Costs

External Equity Manager Domestic	
Ariel Capital Management	5,489.58
Barclays Global Investors	1,358,570.85
Battery March Fin Management Inc	729,253.16
Bivium Capital Partners LLC	1,160,570.52
Blackrock Financial Management Inc.	380,792.00
Capital Prospects LLC	721,740.29
Chicago Equity Partners Corp.	863,320.55
Delaware Investment Advisors	552,077.00
Delphi Management, Inc.	697,376.87
Denver Investment Advisors	378,769.04
First Quadrant	604,760.17
FIS Funds Management Inc	1,710,574.77
Goldman Sachs Asset Management LP	76,148.00
Leading Edge Investment Advisors LLC	1,250,672.17
Light Green Advisors/Rhumbline Advisors	159,567.73
Mellon Capital Management	285,114.68
NCM Capital Management	357,455.02
New Amsterdam Partners LLC	246,996.82
Northern Trust Global Advisors	1,305,336.05
Progress Investment Management Company	1,825,780.55
Sasco Capital	5,402,044.88
State Street Global Advisors	995,352.38
Sterling Capital Management	1,513,525.44
T Rowe Price Enhanced	2,426,120.10
TCW Asset Management	3,781,615.19
UBS Global Asset Mgmt-USEQ	773,080.83
TOTAL	**29,562,104.64**

External Fixed Income Managers	
Aberdeen Asset Management	58,497.08
Artio Global Investors - Julius Baer	2,387,391.86
BlackRock Financial Management Inc	3,091,322.00
E H Williams Capital Management LLC	614,365.98
Goldman Sachs Asset Management	2,532,722.00
LM Capital Group LLC	732,323.62
MW Post Advisory Group	1,608,825.80
Western Asset Management Company	2,737,327.26
TOTAL	**13,762,775.60**

External Fixed Income Managers FX Overlay	
FDO Partners	157,123.29
Lee Overlay Partners	328,804.00
TOTAL	**485,927.29**

External Equity Manager International	
Acuity Investment Management	375,477.14
Baillie Gifford Overseas Ltd	5,847,052.77
Barclays Global Investors	776,746.04
Battery March Financial Mgmt. Co.	1,161,193.24
Blackrock, Inc.	2,261,231.66
Capital Guardian Trust	2,598,944.76
Generation Investment Management US LLP	12,016,139.13
Lazard Asset Management -EM	5,804,469.17
Lazard Freres Asset Management	1,980,207.13
Mondrian Investment Partners	4,482,237.83
Mondrian Investment Partners Ltd	6,816,526.47
Morgan Stanley	1,813,188.02
Nicholas-Applegate Capital Management	2,101,496.57
Oechsle International	1,972,462.73
Pyramis Global Advisors Trust Co	1,467,202.34
State Street Global Advisors	1,095,784.76
T Rowe Price International Inc	6,906,677.27
Templeton Asset Management	2,027,708.40
Templeton Asset Management Ltd	5,481,338.11
UBS Global Asset Mgmt-Non-USEQ	1,532,886.80
TOTAL	**8,518,970.34**

Real Estate Manager/Advisor	
BlackRock Realty Advisors Inc	1,914,631.00
CB Richard Ellis	7,201,301.53
Heitman Capital Management	2,475,297.00
ING Clarion Partners, LLC	721,007.00
Principal Global Investors	4,691,227.00
Thomas Properties Group, LLC	262,595.00
TOTAL	**17,266,058.53**

Total External Investment Manager Fees	**$129,595,836.40**

Total Internal Investment Management Costs	**$11,438,188**

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
Advisors and Consultants	ALTIUS ASSOCIATES LIMITED	0.00	ADVISORY SERVICES - ALTERNATIVE INVESTMENTS PORTFOLIO
	ALTURA CAPITOL GROUP	65,000.00	SUBSCRIPTION
	ALTURA CAPITOL GROUP	195,000.00	SUBSCRIPTION
	BARD CONSULTING, LLC	0.00	EVERGREEN CONTRACT FOR REAL ESTATE INDEPENDENT FIDUCIARY
	CAMBRIDGE ASSOCIATES	4,800,000.00	PRIVATE EQUITY PROGRAM ADVISOR
	CAMBRIDGE ASSOCIATES, LLC	0.00	ALTERNATIVE INVESTMENT PROGRAM ADVISOR-AMERICAS AND ASIA.
	CAPITAL HOTEL MANAGEMENT	0.00	REAL ESTATE INDEPENDENT FIDUCIARY
	COURTLAND PARTNERS, LTD	0.00	CONTRACTOR SHALL PROVIDE EVALUATION AND DUE DILIGENCE SERVICE FOR DOMESTIC AND INTERNATIONAL COMMINGLED FUNDS, JOINT VENTURES, AND OTHER REAL ESTATE RELATED PROJECTS.
	CREDIT SUISSE AG, NEW YORK BRNACH	0.00	AMENDED TO CHANGE NAME.
	CREDIT SUISSE FIRST BOSTON	0.00	SECURITIES LENDING MANAGER
	CREDIT SUISSE, NEW YORK BRANCH	0.00	SECURITIES LENDING AGENT SERVICES, AMEND TO CHANGE CONTRACT TO EVERGREEN.
	DAVID L. BONUCCELLI & ASSOCIATES, INC.	0.00	EVERGREEN: REAL ESTATE INDEPENDENT FIDUCIARY
	DLJ MB ADVISORS ON BEHALF OF CREDIT SUISSE FUND INVESTMENT GROUP	60,000.00	INDEPENDENT FIDUCIARIES FOR THE PROACTIVE PORTFOLIO
	EMKIN MANAGEMENT CORPORATION	0.00	ALTERNATIVE INVESTMENT CONSULTANT
	ENNIS KNUPP & ASSOCIATES	0.00	AMEND TO DELETE ANNUAL SERVICES FEE AND TO CHANGE FUNDING INDEX AND CODE
	ENNIS KNUPP & ASSOCIATES	0.00	REAL ESTATE INDEPENDENT FIDUCIARY
	ENNIS KNUPP & ASSOCIATES, INC.	0.00	SPECIAL PROJECT CONSULTANT
	ENNIS, KNUPP & ASSOCIATES, INC.	0.00	SPECIAL PROJECT CONSULTANT
	HOULIHAN LOKEY HOWARD & ZUKIN FINANCIAL ADIVSORS, INC.	0.00	AMENDED TO REFLECT EVERGREEN TERM AND ADJUST CONTRACT LANGUAGE
	HOULIHAN LOKEY HOWARD & ZUKIN FINANCIAL ADIVSORS, INC.	0.00	FUNDING STRIP 1
	HOULIHAN LOKEY HOWARD & ZUKIN FINANCIAL ADVISORS, INC.	0.00	ALTERNATIVE INVESTMENT MANAGER
	INDEPENDENT FIDUCIARY SERVICES, INC.	0.00	SPECIAL PROJECT CONSULTING SERVICES
	INSTITUTIONAL INVESTOR CONSULTING SERVICES, LLC	35,000.00	CONSULTING AND ADVISORY SERVICES FOR INSTITUTIONAL INVESTORS.
	INVESTORS DIVERSIFIED REALTY, LLC	0.00	EVERGREEN CONTRACT
	KPMG, LLP	0.00	FINANCIAL ADVISOR FOR CO-INVESTMENT
	MELLON CONSULTANTS, LLC	0.00	SPECIAL PROJECT CONSULTING SERVICES
	NELSON AND BERNSTIEN, LLC	50,000.00	REAL ESTATE INSURANCE CONSULTANT
	NELSON AND BERNSTIEN, LLC	541,650.00	REAL ESTATE INSURANCE CONSULTING SERVICES
	PACIFIC CORPORATE GROUP, LLC	0.00	CO-INVESTMENT ADVISOR, INDEPENDENT FIDUCIARY - AMEND TO REFLECT EVERGREEN TERM
	PACIFIC CORPORATE GROUP, LLC.	0.00	NAME CHANGE AND AUTHORIZED PERSONNEL
	PACIFIC CORPORATE GROUP, LLC.	0.00	FINANCIAL ADVISOR FOR CO-INVESTMENT
	PACIFIC CORPORATE GROUP, LLC.	0.00	REAL ESTATE INDEPENDENT FIDUCIARY
	PENSION CONSULTING ALLAINCE, INC.	0.00	AMEND TO REFLECT CHANGE IN TERM
	PENSION CONSULTING ALLIANCE	0.00	AMEND TO EXTEND TERM OF CONTRACT, ADD FUNDS AND ADDITIONAL SERVICES
	PENSION CONSULTING ALLIANCE	3,190,500.00	CONSULTING SERVICES

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	PENSION CONSULTING ALLIANCE	2,900,000.00	AMENDED TO EXTEND TERM, INCREASE FUNDS, AND CHANGE INDEX CODE.
	PENSION CONSULTING ALLIANCE, INC.	0.00	REAL ESTATE INDEPENDENT FIDUCIARY - AMEND TO REFLECT EVERGREEN TERM
	PENSION CONSULTING ALLIANCE, INC.	0.00	FUNDING CHANGE ONLY
	PENSION CONSULTING ALLIANCE, INC.	0.00	REAL ESTATE INDEPENDENT FIDUCIARY
	PENSION CONSULTING ALLIANCE, INC.	0.00	ALTERNATIVE INVESTMENT ADVISOR
	PENSION CONSULTING ALLIANCE, INC.	0.00	AMEND TO CHANGE NAME.
	PENSION CONSULTING ALLIANCE, INC.	0.00	ALTERNATIVE INVESTMENT ADVISOR
	R.V. KUHNS & ASSOCIATES, INC.	0.00	SPECIAL PROJECT CONSULTING SERVICES
	REAL ESTATE FIDUCIARY SERVICES	0.00	CONTRACTOR SHALL PROVIDE EVALUATION AND DUE DILIGENCE SERVICES - DOMESTIC AND INTERNATIONAL COMMINGLED FUNDS, JOINT VENTURES, AND OTHER REAL ESTATE RELATED PROJECTS.
	REAL ESTATE RESEARCH CORPORATION	0.00	REAL ESTATE INDEPENDENT FIDUCIARY
	REAL ESTATE RESEARCH CORPORATION	0.00	REAL ESTATE INDEPENDENT FIDUCIARY
	THE TOWNSEND GROUP	0.00	REAL ESTATE INVESTMENT CONSULTANT
	VALUATION RESEARCH CORP.	0.00	AMENDMENT TO MODIFY LANGUAGE
	VALUATION RESEARCH CORP.	0.00	AMEND TO REFLECT CHANGE IN TERM
	VALUATION RESEARCH CORP.	0.00	FUNDING CHANGE ONLY TO CORRECT EXPIRATION DATE
	VALUATION RESEARCH CORP.	0.00	CO-INVESTMENT ADVISOR
	VALUATION RESEARCH CORPORATION	0.00	EVALUATION AND DUE DILIGENCE SERVICES FOR DOMESTIC AND INTERNATIONAL COMMINGLED FUNDS, JOINT VENTURES, AND OTHER REAL ESTATE RELATED PROJECTS/ EVERGREEN
Attorneys, Master Custodian and Insurers	FULBRIGHT & JAWORSKI, LLP	0.00	AMENDED TO REFLECT THE APPROPRIATE CURRENT CONTINUOUS APPROPRIATION CODES.
	SHEPPARD, MULLIN, RICHTER & HAMPTON, LLP	480,000.00	PROVIDE LEGAL REPRESENTATION
	STATE STREET	0.00	AMENDED TO INCORPORATE ADDENDUM CHANGING CONTRACT LANGUAGE.
	STATE STREET BANK & TRUST CO.	0.00	AMEND TO REFLECT CHANGE IN TERM
	STATE STREET BANK & TRUST CO.	0.00	MASTER CUSTODY SERVICES
	STATE STREET BANK & TRUST COMPANY	0.00	FUNDING CHANGE ONLY
	STATE STREET BANK & TRUST COMPANY	0.00	SECURITIES LENDING SERVICES
	STATE STREET BANK & TRUST COMPANY	0.00	TRANSITION MANAGEMENT SERVICE
	STATE STREET BANK AND TRUST COMPANY	0.00	AMEND TO ACCOMMODATE THE EVERGREEN TERM AND CHANGE THE ITEM NUMBER, INDEX AND OBJECT CODE.
	STATE STREET BANK AND TRUST COMPANY	0.00	AMEND TO INCORPORATE CONTRACTOR'S AMENDMENT 1 & 2
	STATE STREET BANK AND TRUST COMPANY	0.00	AMEND TO REPLACE AUTHORIZED/KEY PERSONNEL
	STATE STREET BANK AND TRUST COMPANY	0.00	CREDIT ENHANCEMENT SERVICE AGENT
Corporate Governance	ASSET4	140,000.00	SUBSCRIPTION
	BROADRIDGE	1,050.00	WEB-SITE SERVICES - PROXY VOTES ON CALSTRS.COM

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	CALIFORNIA PUBLIC EMPLOYEES RETIREMENT SYSTEM	750,000.00	FOR CALSTRS TO REIMBURSE CALPERS FOR THE COST OF CONFERENCE CO-HOSTING
	CARBON DISCLOSURE PROJECT	0.00	MEMBERSHIP
	CORPORATE LIBRARY	0.00	RESEARCH AND RATINGS
	COUNCIL OF INSTITUTIONAL INVESTORS	30,000.00	MEMBERSHIP
	EGAN-JONES PROXY SERVICES		SUBSCRIPTION
	EGAN-JONES PROXY SERVICES	2,250.00	SUBSCRIPTION
	EVA DIMENSIONS	0.00	RESEARCH
	EVA DIMENSIONS	45,000.00	SUBSCRIPTION
	GENOCIDE INTERVENTION NETWORK	0.00	SUBSCRIPTION
	GLASS LEWIS & CO.	0.00	RESEARCH
	GLASS, LEWIS	151,500.00	PROXY PAPER (INTERNATIONAL & DOMESTIC)
	GLOBAL PROXY WATCH	0.00	SUBSCRIPTION
	GOVERNANCEMETRICS INTERNATIONAL	0.00	RESEARCH AND RATINGS
	GOVERNANCEMETRICS INTERNATIONAL	26,000.00	SUBSCRIPTION
	INSTITUTIONAL SHAREHOLDERS SERVICES, INC (ISS)	25,000.00	SUBSCRIPTION
	INSTITUTIONAL SHAREHOLDERS SERVICES, INC (ISS)	286,675.00	SUBSCRIPTION
	INSTITUTIONAL SHAREHOLDERS SERVICES, INC (ISS)	5,000.00	SUBSCRIPTION
	INTERNATIONAL FUND SERVICES (N.A.) L.L.C.	131,250.00	ACCOUNTING SERVICES - CG MANAGEMENT PROGRAM
	IRSS	0.00	SUBSCRIPTION
	KLD	0.00	AMEND TO UPDATE CONTRACTOR NAME
	KLD	0.00	SUBSCRIPTION
	KLD	8,000.00	SUBSCRIPTION
	KLD RESEARCH & ANALYTICS	0.00	RESEARCH
	KLD RESEARCH & ANALYTICS	0.00	SUBSCRIPTION
	MCTM GOVERNANCE, LLC	0.00	SUBSCRIPTION
	PIRC	0.00	SUBSCRIPTION
	PROXY GOVERNANCE INC.	0.00	SUBSCRIPTION
	REUTERS AMERICA, LLC	0.00	SUBSCRIPTION
	STANFORD LAW SCHOOL	10,000.00	MEMBERSHIP
	THE CONFERENCE BOARD	15,000.00	MEMBERSHIP
	THE CONFERENCE BOARD	15,000.00	MEMBERSHIP
	THE CONFERENCE BOARD	0.00	SUBSCRIPTION
External Equity Manager - Domestic	ARIEL CAPITAL MANAGEMENT, INC.	0.00	AMENDED TO REFLECT AS AN EVERGREEN CONTRACT
	ARIEL CAPITAL MANAGEMENT, INC.	0.00	DOMESTIC EQUITY MANAGER (SMALL CAP)
	BARCLAYS GLOBAL INVESTORS	0.00	DOMESTIC EQUITY ENHANCED INDEX
	BARCLAYS GLOBAL INVESTORS	0.00	BENCHMARK CHANGES AND GUIDELINES
	BARCLAYS GLOBAL INVESTORS	0.00	AMEND TO REFLECT CHANGE IN TERM
	BARCLAYS GLOBAL INVESTORS	0.00	S & P 500 MANAGER
	BARCLAYS GLOBAL INVESTORS	0.00	CHANGE GUIDELINES AND AUTHORIZED PERSONNEL
	BARCLAYS GLOBAL INVESTORS	0.00	AMEND TO REFLECT CHANGE IN TERM
	BARCLAYS GLOBAL INVESTORS	0.00	EXTENDED MARKET MANAGER
	BATTERY MARCH FINANCIAL MANAGEMENT	0.00	ENHANCED INDEX MANAGER

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	BATTERYMARCH FINANCIAL MANAGEMENT	0.00	FEE RENEGOTIATION FOR BATTERYMARCH TC1G US ENHANCED
	BIVIUM CAPOTAL PARTNERS, LLC	0.00	DEVELOPING MANAGER PROGRAM
	BLACKROCK FINANCIAL MANAGEMENT, INC.	0.00	ENHANCED INDEX MANAGER
	BLACKROCK FINANCIAL MGMT	0.00	FIXED INCOME PORTFOLIO & RISK MGMT SYSTEM
	BLACKROCK INSTITUTIONAL TRUST COMPANY, N.A.	0.00	AMENDED TO REFLECT NAME CHANGE
	BLACKROCK INTERNATIONAL, LTD	0.00	INTERNATIONAL MANAGER PACIFIC BASIN
	BLACKROCK INVESTMENT MANAGEMENT, LLC	0.00	TRANSITION MANAGEMENT POOL
	BROWN CAPITAL MANAGEMENT	0.00	AMENDED TO REFLECT AS A EVERGREEN CONTRACT
	BROWN CAPITAL MANAGEMENT	0.00	DOMESTIC EQUITY MANAGER LARGE CAP
	CAPITAL PROSPECTS LLC	0.00	MANAGER - GLOBAL EQUITY, DEVELOPING MANAGER PORTFOLIO
	CHICAGO EQUITY PARNTERS, LLC	0.00	AMEND TO REFLECT NAME CHANGE
	CHICAGO EQUITY PARNTERS, LLC	0.00	AMENDED TO REFLECT AS AN EVERGREEN CONTRACT
	CHICAGO EQUITY PARTNERS, LLC	0.00	AMEND TO REFLECT NAME CHANGE
	CHICAGO EQUITY PARTNERS, LLC	0.00	DOMESTIC EQUITY LARGE CAP INDEX
	CITIGROUP GLOBAL MARKETS, INC	0.00	TRANSITION MANAGEMENT POOL
	DELAWARE INVESTMENT ADVISORS	0.00	AMENDED TO REFLECT AN EVERGREEN CONTRACT
	DELAWARE INVESTMENT ADVISORS	0.00	DOMESTIC EQUITY LARGE CAP INDEX
	DELPHI MANAGEMENT, INC.	0.00	DOMESTIC EQUITY MANAGER (SMALL CAP)
	DENVER INVESTMENT ADVISORS, LLC	0.00	AMENDED TO REFLECT AS AN EVERGREEN CONTRACT-NO EXP. DATE
	DENVER INVESTMENT ADVISORS, LLC	0.00	DOMESTIC EQUITY MANAGERS (SMALL CAP)
	FIRST QUADRANT, LP	0.00	AMENDED TO REFLECT AS AN EVERGREEN CONTRACT - NO EXPIRATION DATE
	FIRST QUADRANT, LP	0.00	DOMESTIC EQUITY LARGE CAP INDEX
	FIS FUNDS MANAGEMENT, INC.	0.00	DEVELOPING EQUITY MANAGER
	GOLDMAN SACHS ASSET MANAGEMENT	0.00	AMEND TO REFLECT EVERGREEN TERM
	GOLDMAN SACHS ASSET MANAGEMENT	0.00	INTERNATIONAL EQUITY MANAGER
	LEADING EDGE INVESTMENT	0.00	GLOBAL EQUITIES DEVELOPING MANAGER. (EVERGREEN)
	LIGHT GREEN ADVISORS/RHUMBLINE ADVISORS	0.00	SUSTAINABLE INVESTMENT MANAGER
	MELLON CAPITAL MANAGEMENT CORP.	0.00	ADD Y2K LANGUAGE
	MELLON CAPITAL MANAGEMENT CORP.	0.00	AMENDED TO REFLECT AS AN EVERGREEN CONTRACT
	MELLON CAPITAL MANAGEMENT CORP.	0.00	DOMESTIC EQUITY ENHANCED INDEX
	NCM CAPITAL MANAGEMENT GROUP, INC.	0.00	AMENDED TO REFLECT AS AN EVERGREEN CONTRACT
	NCM CAPITAL MANAGEMENT GROUP, INC.	0.00	DOMESTIC EQUITY LARGE CAP INDEX
	NEW AMSTERDAM PARTNERS LLC	0.00	SUSTAINABLE INVESTMENT MANAGER
	NORTHERN TRUST GLOBAL ADVISORS INC.	0.00	MANAGER - EXTERNAL EQUITIES DEVELOPING MANAGER PROGRAM
	PROGRESS INVESTMENT MANAGEMENT CO. LLC	0.00	MANAGER - GLOBAL EQUITY, DEVELOPING MANAGERS PORTFOLIO
	RUSSELL IMPLEMENTATION	0.00	TRANISION MANAGEMENT POOL

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	SASCO CAPITAL, INC.	0.00	AMENDED TO REFLECT EVERGREEN CONTRACT - NO END DATE
	SASCO CAPITAL, INC.	0.00	DOMESTIC EQUITY SMALL CAP INDEX
	STATE STREET GLOBAL ADVISORS	0.00	UPDATE CALSTRS AUTHORIZED PERSONNEL
	STATE STREET GLOBAL ADVISORS	0.00	AMENDED TO REFLECT EVERGREEN CONTRACT
	STATE STREET GLOBAL ADVISORS	0.00	DOMESTIC EQUITY ENHANCED INDEX
	STATE STREET GLOBAL ADVISORS	0.00	AMEND TO REFLECT CHANGE IN TERM
	STATE STREET GLOBAL ADVISORS	0.00	PORTFOLIO MANAGER FOR EXTENDED MARKET INDEX
	STATE STREET GLOBAL ADVISORS	0.00	ENHANCED INDEX MANAGER
	STATE STREET GLOBAL ADVISORS	0.00	AMEND BENCHMARK AND UPDATE GUIDELINES
	STERLING CAPITAL MANAGEMENT, LLC	0.00	INVESTMENT MANAGER RELATIONAL CORPORATE GOVERANCE
	STERLING CAPITAL MANAGEMENT, LLC. *EVERGREEN	0.00	AMENDMENT TO ADJUST FEES
	T. ROWE PRICE	0.00	EMERGING MARKETS MANAGER
	TCW ASSET MANAGEMENT CO.	0.00	DOMESTIC EQUITY SMALL CAP INDEX
	TCW ASSET MANAGEMENT CO.	0.00	DOMESTIC EQUITY SMALL CAP INDEX
	UBS GLOBAL ASSET MANAGEMENT (AMERICAS)	0.00	NAME CHANGE & UPDATE AUTHORIZED PERSONNEL
	UBS GLOBAL ASSET MANAGEMENT (AMERICAS)	0.00	CONTRACT AMENDED TO REFLECT AS AN EVERGREEN
	UBS GLOBAL ASSET MANAGEMENT (AMERICAS)	0.00	DOMESTIC EQUITY LARGE CAP INDEX
	UBS GLOBAL ASSET MANAGEMENT (AMERICAS) INC.	0.00	AMENDED TO REFLECT REDUCTION IN FEES AND TO UPDATE FUNDING SOURCE CODE
	UBS GLOBAL ASSET MANAGEMENT(AMERICAS) INC.	0.00	AMENDED TO REFLECT REDUCTION IN FEES AND UPDATE FUNDING SOURCE CODE
External Equity Manager - International	ACUITY INVESTMENT MANAGEMENT	0.00	SUSTAINABLE INVESTMENT MANAGEMENT
	BAILLIE GIFFORD OVERSEAS LIMITED	0.00	EMERGING MARKETS MANAGER
	BANK OF IRELAND ASSET MANAGEMENT LT	0.00	INTERNATIONAL MANAGER EAFE
	BARCLAYS GLOBAL INVESTORS	0.00	CLARIFY PROXY VOTING RESPONSIBILITIES
	BARCLAYS GLOBAL INVESTORS	0.00	AMEND TO REFLECT THE EVERGREEN TERM
	BARCLAYS GLOBAL INVESTORS	0.00	EAFE MANAGER
	BATTERYMARCH FINANCIAL MANAGEMENT	0.00	INTERNATIONAL MANAGER EAFE
	BATTERYMARCH FINANCIAL MANAGEMENT	0.00	FEE RENEGOTIATION
	CAPITAL GUARDIAN TRUST COMPANY	0.00	INTERNATIONAL MANAGER EAFE
	CAPITAL GUARDIAN TRUST COMPANY	0.00	HIGH YIELD FIXED INCOME INVESTMENT MANAGEMENT SERVICES
	FRANKLIN TEMPLETON INSTITUTIONAL, LLC	0.00	AMEND TO REFLECT NAME CHANGE
	FRANKLIN TEMPLETON INSTITUTIONAL, LLC	0.00	INTERNATIONAL MANAGER EAFE

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	GENERATION INVESTMENT MANAGEMENT	0.00	
	GENERATION INVESTMENT MANAGEMENT	0.00	SUSTAINABLE INVESTMENT MANAGER
	LAZARD ASSEST MANAGEMENT, LLC	0.00	EMERGING MARKETS MANAGER
	LAZARD FRERES ASSET MANAGEMENT	0.00	INTERNATIONAL MANAGER EAFE
	MARVIN & PALMER ASSOCIATES, INC.	0.00	INTERNATIONAL MANAGER EAFE
	MONDRIAN INVESTMENT PARTNERS, INC.	0.00	INTERNATIONAL EQUITY MANAGER - EAFE
	MONDRIAN INVESTMENT PARTNERS, INC.	0.00	INTERNATIONAL MANAGER EAFE
	MONDRIAN INVESTMENT PARTNERS, INC.	0.00	EMERGING MARKETS MANAGER
	MONDRIAN INVESTMENT PARTNERS, LTD	0.00	AMENDED TO REFLECT A CHANGE IN FEES
	MORGAN STANLEY DEAN WITTER	0.00	INTERNATIONAL MANAGER EAFE
	NICHOLAS-APPLEGATE CAPITAL MGMT.	0.00	INTERNATIONAL MANAGER EAFE
	OECHSLE INTERNATIONAL ADVISORS	0.00	INTERNATIONAL MANAGER EUROPEAN
	PARIBAS ASSET MANAGEMENT, INC	0.00	INTERNATIONAL EQUITY EUROPEAN
	PYRAMIS GLOBAL ADVISORS TRUST COMPANY	0.00	CORE PLUS BOND MANAGER
	STATE STREET GLOBAL ADVISORS	0.00	CLARIFY PROXY VOTING RESPONSIBILITIES
	STATE STREET GLOBAL ADVISORS	0.00	UPDATE CALSTRS AUTHORIZED PERSONNEL
	STATE STREET GLOBAL ADVISORS	0.00	AMEND TO REFLECT CHANGE IN TERM
	STATE STREET GLOBAL ADVISORS	0.00	EAFE MANAGER
	T. ROWE PRICE ASSOCIATES	0.00	EXTERNAL MANAGER
	T. ROWE PRICE ASSOCIATES, INC	0.00	GLOBAL EQUITY U.S. ENHANCED MANAGER SERVICES
	TEMPLETON ASSET MANAGEMENT, LTD.	0.00	AMEND TO REFLECT CHANGE IN FEES AND UPDATE BUDGET SOURCE CODES
	TEMPLETON ASSET MANAGEMENT, LTD.	0.00	EMERGING MARKET MANAGER
	UBS GLOBAL ASSET MANAGEMENT (AMERICAS)	0.00	REFLECT NAME CHANGE & UPDATE AUTHORIZED PERSONNEL
	UBS GLOBAL ASSET MANAGEMENT (AMERICAS)	0.00	INTERNATIONAL MANAGER EAFE
External Fixed Income Managers	ABERDEEN ASSET MANAGEMENT	0.00	CORE PLUS BOND MANAGER
	ABERDEEN ASSET MANAGEMENT, INC.	0.00	AMEND TO REFLECT CHANGE IN FEES
	ARTIO GLOBAL MANAGEMENT LLC	0.00	AMEND TO REFLECT NAME CHANGE AND CONTACT INFORMATION
	BLACKROCK FINANCIAL MANAGEMENT	0.00	HIGH YIELD BOND MANAGER
	BOSTON GLOBAL ADVISORS	0.00	AMEND TO FEE STRUCTURE
	BOSTON GLOBAL ADVISORS	0.00	AMEND TO REFLECT CHANGE IN TERMS
	BOSTON GLOBAL ADVISORS	0.00	SECURITIES LENDING

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	COMMUNITY CAPITAL MANAGEMENT, INC.	0.00	MANAGER - PORTION OF THE FIXED INCOME, DEVELOPING MANAGER PORTFOLIO.
	CREDIT SUISSE, NEW YORK BRANCH	0.00	TRANSITION POOL
	E.H. WILLIAMS	0.00	HIGH YIELD BOND MANAGER
	GOLDMAN SACHS AGENCY LENDING	0.00	AMEND TO REFLECT NAME CHANGE
	GOLDMAN SACHS ASSET MANAGEMENT	0.00	HIGH YIELD BOND MANAGER
	JULIUS BAER	0.00	CORE PLUS BOND MANAGER
	LEADING EDGE INVESTMENT	0.00	MANAGER - PORTION OF THE FIXED INCOME, DEVELOPING MANAGER PORTFOLIO.
	LM CAPITAL GROUP, LLC	0.00	CORE PLUS BOND MANAGER
	MW POST ADVISORY GROUP, LLC	0.00	TO UPDATE CALSTRS AUTHORIZED PERSONNEL & GUIDELINES
	MW POST ADVISORY GROUP, LLC	0.00	AMEND TO REFLECT CHANGE IN TERM
	MW POST ADVISORY GROUP, LLC	0.00	HIGH YIELD MANAGER
	WESTERN ASSET MANAGEMENT COMPANY	0.00	AMENDED TO REFLECT CHANGE IN FEES
	WESTERN ASSET MANAGEMENT COMPANY	0.00	CORE PLUS BOND MANAGER
FX Overlay	FDO PARTNERS, LLC	0.00	MANAGER - PORTION OF THE EXTERNAL CURRENCY MANAGER PORTFOLIO.
	LEE OVERLAY PARTNERS	0.00	MANAGER - EXTERNAL CURRENCY PROGRAM.
	LEE OVERLAY PARTNERS	0.00	AMENDED FEES
Operating Expenses	ATTORNEY'S DIVERSIFIED SERVICES	300.00	PROCESS SERVER FEES
	BANK OF AMERICA, N.A.	0.00	AMENDED TO REFLECT NAME CHANGE
	BARCLAYS CAPITOL	450,000.00	ONLINE SUBSCRIPTION
	BROADRIDGE	0.00	AMENDED TO CHANGE FUNDING SOURCE CODE
	BROADRIDGE FINANCIAL SOLUTIONS, INC.	0.00	SUBSCRIPTION
	CALIFORNIA PUBLIC EMPLOYEES RETIREMENT SYSTEM	0.00	TO REIMBURSE CALPERS FOR THE COST OF CONFERENCE CO-HOSTING.
	COUNTRYWIDE HOME LOANS INC.	0.00	ADMIN. SUPPORT FOR CALSTRS HOME LOAN PROGRAM.
	COUNTRYWIDE HOME LOANS, INC.	0.00	HOME LOAN PROGRAM
	COUNTRYWIDE HOME LOANS, INC.	0.00	FUNDING CHANGE
	DOW JONES & CO	0.00	SUBSCRIPTION
	DOW JONES & CO	0.00	SUBSCRIPTION
	DOW JONES & COMPANY	0.00	SUBSCRIPTION
	EFL ASSOCIATES	0.00	EXECUTIVE SEARCH SERVICES
	EFL ASSOCIATES	450,000.00	EXECUTIVE SEARCH SERVICES
	EMERGING MARKETS PRIVATE EQUITY ASSOCIATION	3,000.00	MEMBERSHIP
	EMPLOYEE RELATIONS, INC	4,500.00	AMENDED TO ADD FUNDS AND EXTEND TERM OF CONTRACT
	INSTITUTIONAL LIMITED PARTNERS ASSOCIATION (ILPA)	2,500.00	MEMBERSHIP
	INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, INC.	9,360.00	MEMBERSHIP
	IPC SYSTEMS, INC	20,000.00	MAINTENANCE SUPPORT FOR TRADING FLOOR TURRET PHONES
	KATRINA KENNEDY TRAINING	59,500.00	TRAINING AND CONSULTING SERVICES
	KORN/FERRY INTERNATIONAL	0.00	EXECUTIVE SEARCH SERVICES
	KORN/FERRY INTERNATIONAL	0.00	EXECUTIVE SEARCH SERVICES
	KORN/FERRY INTERNATIONAL	450,000.00	EXECUTIVE SEARCH SERVICES
	NCTR	2,900.00	MEMBERSHIP

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	PACIFIC PENSION INSTITUTE	10,000.00	MEMBERSHIP
	STATE CONTROLLER'S OFFICE (SCO)	0.00	RELEASE OF PAYMENT
	SYMSOFT SOLUTIONS, LLC	27,860.00	WEB DESIGN AND MAINTENANCE
Real Estate Manager/Advisor	BLACKROCK REALTY ADVISORS, INC.	0.00	LANGUAGE CHANGE ONLY
	BLACKROCK REALTY ADVISORS, INC.	0.00	LANGUAGE CHANGE ONLY
	BLACKROCK REALTY ADVISORS, INC.	0.00	AMENDED TO REFLECT NAME CHANGE AND TERMS
	BLACKROCK REALTY ADVISORS, INC.	0.00	REAL ESTATE MANAGER
	BLACKTROCK REALTY ADVSORS, INC.	0.00	FUNDING CHANGE ONLY
	C. B. RICHARD ELLIS INVESTORS LLC	0.00	FUNDING CHANGE ONLY
	C. B. RICHARD ELLIS INVESTORS LLC	0.00	RESPONSIBILITIES CONTRACTOR AS TITLE HOLDING ENTITIES
	C. B. RICHARD ELLIS INVESTORS LLC	0.00	AMEND TO REFLECT EVERGREEN TERM
	C. B. RICHARD ELLIS INVESTORS LLC	0.00	REAL ESTATE MANAGER
	HEITMAN CAPITAL MANAGEMENT, LLC	0.00	INCORPORATE ATTACHMENT A
	HEITMAN CAPITAL MANAGEMENT, LLC	0.00	AMEND TO REFLECT EVERGREEN CONTRACT TERM
	HEITMAN CAPITAL MANAGEMENT, LLC	0.00	AMEND TO CHANGE FUNDING SOURCE CODE
	HEITMAN CAPITAL MANAGEMENT, LLC	0.00	REAL ESTATE MANAGER
	ING CLARION PARTNERS, LLC	0.00	RESPONSIBILITIES CONTRACTOR AS TO TITLE HOLDING ENTITY
	ING CLARION PARTNERS, LLC	0.00	AMEND TO REFLECT EVERGREEN TERM
	ING CLARION PARTNERS, LLC	0.00	AMEND TO REFLECT NAME CHANGE
	ING CLARION PARTNERS, LLC	0.00	REAL ESTATE MANAGERS
	JOHN MCMAHAN GROUP	0.00	AMEND TO REFLECT EVERGREEN TERM
	JOHN MCMAHAN GROUP	0.00	REAL ESTATE - CO INVESTMENT IND. FIDUCIARY
	LOWE ENTERPRISES	0.00	HOW CALSTRS REAL PROPERTY TITLE HELD & RESPON. OF ADVIS
	LOWE ENTERPRISES	0.00	AMEND TO REFLECT EVERGREEN TERM
	LOWE ENTERPRISES	0.00	REAL ESTATE MANAGER
	LOWE ENTERPRISES	0.00	REAL ESTATE MANAGER
	ORG PORTFOLIO MANAGEMENT LLC	0.00	REAL ESTATE INDEPENDENT FIDUCIARY
	PCA REAL ESTATE ADVISORS, INC.	0.00	REAL ESTATE INDEPENDENT FIDUCIARY
	PRINCIPAL CAPITAL REAL ESTATE INVESTORS, LLC	0.00	RESPONSIBILITIES OF CONTRACTOR TO TITLE HOLDING ENTITY
	PRINCIPAL CAPITAL REAL ESTATE INVESTORS, LLC	0.00	UPDATE CONTRACTORS AUTHORIZED PERSONNEL PAGE
	PRINCIPAL CAPITAL REAL ESTATE INVESTORS, LLC	0.00	AMEND TO UPDATE CONTRACTOR'S AUTHORIZED PERSONNEL EXHIBIT
	PRINCIPAL CAPITAL REAL ESTATE INVESTORS, LLC	0.00	AMEND TO REFLECT CHANGE IN FUNDING SOURCE CODE
	PRINCIPAL CAPITAL REAL ESTATE INVESTORS, LLC	0.00	REAL ESTATE INVESTMENT MANAGER
	PRINCIPAL REAL ESTATE INVESTORS, LLC.	0.00	AMEND TO CHANGE TERM TO EVERGREEN

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	SENTINEL REALTY ADVISORS CORP.	0.00	RESPONISIBILITIES CONTRACTOR AS TO TITLE HOLDING ENTITY
	SENTINEL REALTY ADVISORS CORP.	0.00	REAL ESTATE INVESTMENT MANAGER - AMEND TO REFLECT EVERGREEN TERM
	SENTINEL REALTY ADVISORS CORP.	0.00	REAL ESTATE MANAGER
	THOMAS PROPERTIES GROUP, LLC	0.00	EVERGREEN TERM AMENDED REAL ESTATE INVESTMENT
	THOMAS PROPERTIES GROUP, LLC	0.00	MODIFY FEES TO ALIGN WITH MARKET
	THOMAS PROPERTIES GROUP, LLC	0.00	RESPONSIBILITIES OF CONTRACTOR AS TITLE HOLDING ENTITY
	THOMAS PROPERTIES GROUP, LLC	0.00	AMEND TO REFLECT CHANGE IN TERM
	THOMAS PROPERTIES GROUP, LLC	0.00	REAL ESTATE MANAGER
Research and Rating Services	AUDIT INTEGRITY	0.00	RESEARCH
	BCA RESEARCH	0.00	RESEARCH
	CAPITAL IQ, INC	0.00	RESEARCH
	CEM	125,000.00	BENEFIT ADMINISTRATION BENCHMARKING ANALYSIS
	CREDIT SIGHTS	0.00	SUBSCRIPTION
	CREDIT SIGHTS	24,000.00	SUBSCRIPTION
	EVESTMENT ALLIANCE, LLC	14,979.00	SUBSCRIPTION
	FACT SET	284,000.00	SUBSCRIPTION
	FITCH INFORMATION, INC.	0.00	RESEARCH
	FITCH INFORMATION, INC.	109,000.00	RESEARCH
	FITCH INFORMATION, INC.	33,500.00	SUBSCRIPTION
	FITCH RATINGS	0.00	SUBSCRIPTION
	FITCH, INC.	20,000.00	RESEARCH AND RATINGS
	GIMME CREDIT LLC	0.00	RESEARCH AND RATINGS
	GIMME CREDIT, LLC	39,000.00	RESEARCH AND RATINGS
	INFORMA INVESTMENTS AND SOLUTIONS	6,500.00	SUBSCRIPTION
	INTERACTIVE DATA PRICING AND REFERENCE DATA, INC.	0.00	SUBSCRIPTION
	INTEX SOLUTIONS	444,000.00	SUBSCRIPTION
	ISI - INTERNATIONAL STRATEGY & INVESTMENT GROUP, INC.	0.00	RESEARCH
	ISI - INTERNATIONAL STRATEGY & INVESTMENT GROUP, INC.	125,000.00	AMENDED TO ADD FUNDS
	ISI - INTERNATIONAL STRATEGY & INVESTMENT GROUP, INC.	100,000.00	SUBSCRIPTION
	MARKET NEW INTERNATIONAL, INC.	8,640.00	SUBSCRIPTION
	MARKET NEWS INTERNATIONAL, INC	0.00	RESEARCH
	MERS	10,000.00	SUBSCRIPTION
	MONEY-MEDIA, INC	0.00	SUBSCRIPTION
	MONEY-MEDIA, INC.	3,260.00	SUBSCRIPTION
	MOODY'S ANALYTICS	0.00	SUBSCRIPTION
	MOODY'S ANALYTICS	0.00	SUBSCRIPTION
	MOODY'S ANALYTICS	17,000.00	SUBSCRIPTION
	MOODY'S ANALYTICS	62,010.00	SUBSCRIPTION
	MOODY'S ANALYTICS (FIXED INCOME)	0.00	SUBSCRIPTION
	MOODY'S INVESTORS SERVICES	269,000.00	RESEARCH AND RATINGS
	MORNINGSTAR	0.00	SUBSCRIPTION
	NCREIF	2,500.00	MEMBERSHIP
	OXFORD ANALYTICA	10,000.00	SUBSCRIPTION
	PROPERTY & PORTFOLIO RESEARCH, INC.	0.00	AMEND TO REDUCE TERM ON SUBSCRIPTION

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	PROPERTY & PORTFOLIO RESEARCH, INC.	0.00	RESEARCH
	RATINGSDIRECT	0.00	RESEARCH AND RATINGS
	REALPOINT, LLC	46,616.00	SUBSCRIPTION
	RUSSELL INVESTMENT GROUP	40,000.00	SUBSCRIPTION
	SOURCE MEDIA	20,000.00	SUBSCRIPTION
	STANDARD & POOR	0.00	SUBSCRIPTION
	STANDARD & POOR	0.00	ACCESS TO STANDARD & POOR'S INDEX INFORMATION
	STANDARD & POOR'S	40,000.00	RESEARCH AND RATINGS
	STANDARD & POORS FINANCIAL SERVICES, LLC	119,700.00	SUBSCRIPTION
	STANDARD & POORS FINANCIAL SERVICES, LLC	63,275.00	SUBSCRIPTION
	STANDARD AND POOR'S	15,000.00	STANDARD AND POOR'S LLC
	STANDARD AND POOR'S	132,000.00	RESEARCH AND RATINGS
	STANDARD AND POOR'S, LLC	15,000.00	SUBSCRIPTION
	THE INSTITUTE FOR QUANTITATIVE RESEARCH IN FINANCE	6,000.00	MEMBERSHIP
	THE YIELD BOOK	180,000.00	SITE ACCESS AND SOFTWARE LICENSE TO THE YIELD BOOK
	THOMSON FINANCIAL LLC	0.00	RESEARCH
	THOMSON FINANCIAL LLC	88,020.00	RESEARCH
	TRANS - LUX	3,362.70	REMOVAL AND HARDWARE AS THE SERVICE WAS DISCONTINUED
	VALUELINE	4,500.00	SUBSCRIPTION
	ZEPHER ASSOCIATES, INC.	3,000.00	SUBSCRIPTION
	ZEPHYR ASSOCIATES, INC	1,093.15	SUBSCRIPTION
	ZEPHYR ASSOCIATES, INC.	0.00	SUBSCRIPTION
Risk Management Systems	BARRA, INC	0.00	SUBSCRIPTION
	BARRA, INC	0.00	AMENDED TO EXTEND TERM END DATE AND ADD FUNDS
	BARRA, INC	0.00	AMENDED TO EXTEND TERM END DATE AND ADD FUNDS
	BARRA, INC.	0.00	FUNDING CHANGE
	BARRA, INC.	107,812.50	SUBSCRIPTION
	BARRAONE	0.00	SUBSCRIPTION
	MSCI INC.	0.00	SUBSCRIPTION
	MSCI INC.	0.00	SUBSCRIPTION
	MSCI INC.		SUBSCRIPTION
	MSCI INC.	0.00	SUBSCRIPTION
	MSCI INC.	40,556.25	SUBSCRIPTION
	MSCI INC.	5,665.00	SUBSCRIPTION
	MSCI INC.	0.00	MSCI WORLD- EX-TOBACCO INDEX
	MSCI, INC	23,500.00	MSCI MONTHLY EX- TOBACCO HOLDINGS DM & EM
	MSCI, INC	23,500.00	MSCI MONTHLY INDEX SERVICES
	MSCI, INC.	8,000.00	2010 GICS MSCI SUPPLIED WITH CUSIP
	MSCIBARRA	0.00	RISK MANAGEMENT SOFTWARE SYSTEM. LICENSING AND TESTING
	MSCIBARRA	0.00	MSCI REAL TIME INDICES
	MSCIBARRA	0.00	MONTHLY DEVELOPED/EMERGING MARKET SMALL CAP
	PENSION FUND DATA EXCHANGE, LTD.	3,750.00	SUBSCRIPTION
	TREPP, LLC	0.00	SUBSCRIPTION
	TREPP, LLC	106,200.00	RISK MANAGEMENT SOFTWARE FOR FIXED INCOME, LICENSING AND TESTING.
Trading Systems	BLOOMBERG FINANCE L.P.	556,137.00	AMENDED TO ADD FUNDS.

FY 2009/10 Summary of Externally Managed Portfolio Contracts

PROGRAM	CONTRACTOR	CURRENT FY ENCUMBERANCE AMOUNT	SERVICE PROVIDED
	BLOOMBERG FINANCE L.P.	1,800,000.00	SUBSCRIPTION
	BLOOMBERG FINANCE L.P.	1,750.00	RELOCATION ADD FEE STANDARD PER TERMINAL, RELOCATION REMOVE FEE STANDARD PER TERMINAL
	BLOOMBERG L.P.	21,000.00	AMENDED TO ADD BLOOMBERG ANYWHERE AND RELATED FUNDS TO THIS ONLINE SUBSCRIPTION: BLOOMBERG PORTFOLIO ORDER MANAGEMENT SYSTEM (POMS)
	BLOOMBERG, L.P.	0.00	BLOOMBERG TERMINALS AND MARKET ACCESS
	BLOOMBERG, L.P.	321,946.00	SUBSCRIPTION: AMENDED TO ADD FUNDS
	BLOOMBERG, L.P.	0.00	BLOOMBERG PORTFOLIO ORDER MANAGEMENT SYSTEM
	DTCC FICC MBS DIVISION	0.00	SUBSCRIPTION
	FACT SET	136,983.00	SUBSCRIPTION
	INTEX SOLUTIONS	0.00	SUBSCRIPTION
	MARKETAXCESS	75,600.00	MARKETAXESS IS AN ONLINE PRICE DISCOVERY SERVICE UTILIZED BY TRADER/ANALYSTS IN THE CORPORATE BOND AREA OF THE FIXED INCOME UNIT.
	METROPOLITAN WEST SECURITIES	0.00	SECURITIES LENDING
	NEW YORK STOCK EXCHANGE	5,543.00	AMENDED TO ADD FUNDS
	NEW YORK STOCK EXCHANGE	0.00	SUBSCRIPTION
	OMGEO	5,440.00	SUBSCRIPTION
	OMGEO	191,500.00	SUBSCRIPTION
	REAL CAPITAL ANALYTICS	0.00	SUBSCRIPTION
	REALPOINT, LLC	0.00	REALPOINT FOR CMBS SERVICES
	REUTERS AMERICA, LLC	82,192.00	SUBSCRIPTION: AMENDED TO ADD CONTRACTOR'S ORDER FORM
	REUTERS AMERICA, LLC	0.00	AMENDED TO ADD FUNDS.
	REUTERS AMERICA, LLC	0.00	MARKET MOVING DATA, INFORMATION PRICING AND NEWS FEEDS NEEDED FOR MANAGEMENT OF CALSTRS FIXED INCOME AND EQUITY PORTFOLIOS.
	RISE VISION	0.00	SUBSCRIPTION
	RISE VISION USA, INC.	0.00	MARKET DATA READER BOARDS
	THOMSON FINANCIAL LLC	144,000.00	SUBSCRIPTION
	THOMSON FINANCIAL LLC	144,000.00	SUBSCRIPTION
	THOMSON FINANCIAL LLC	2,000.00	SUBSCRIPTION
	THOMSON REUTERS	26,148.00	SUBSCRIPTION
	THOMSON REUTERS	88,219.56	SUBSCRIPTION
	TRADEWEB	38,400.00	SUBSCRIPTION
	WACHOVIA GLOBAL SECURITES	0.00	AMENDED TO REFLECT CHANGE IN NAME, FEES, SERVICES PROVIDED AND TO REFLECT EVERGREEN STATUS.
	WACHOVIA GLOBAL SECURITIES	0.00	AMEND TO REFLECT CHANGE IN TERM
	WACHOVIA GLOBAL SECURITIES	0.00	NAME CHANGE
	WACHOVIA GLOBAL SECURITIES LENDING	0.00	AMENDMENT TO ADJUST FEE SCHEDULE
	ZEPHER ASSOCIATES, INC.	18,000.00	CONTRACTOR SHALL PROVIDE USER ACCESS TO STYLE ADVISOR/ALLOCATION ADVISOR AND MORNINGSTAR BASIC PLUS MUTUAL FUND DATA.

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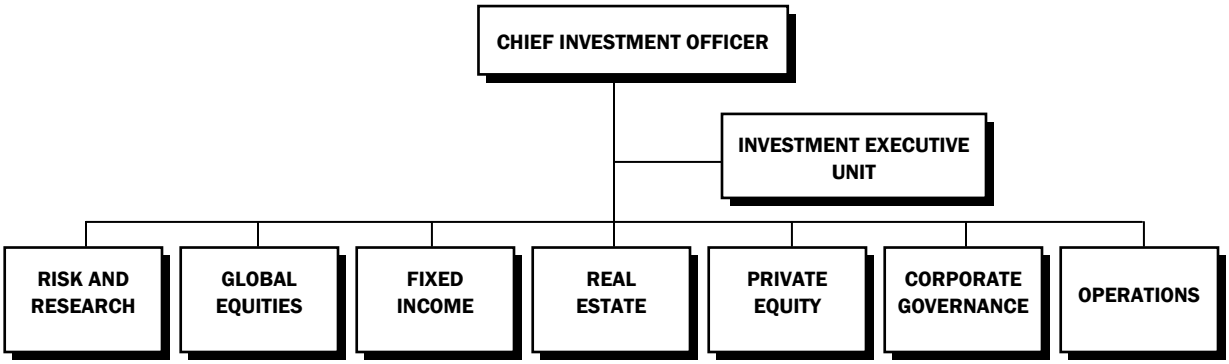
Investments Branch

2009-10 Business Plan

Investment Branch Mission & Organization Chart

The singular mission of the Investment Branch is to generate the required investment return to meet the actuary's assumptions; in dollar terms, that means we need to earn $10 billion each year. To reach even higher, our goal is to add an additional 60 basis points of excess return above the benchmark each year. That equates to adding $1 billion of extra return above what the markets generate. Clearly, in Fiscal Year 08-09, we were not able to deliver on the primary goal and fell well short of other goals. Not surprising the asset classes that fueled our expansion in 2004- 2007, gave back the majority of our return in 2008.

Within the business plans, each unit will display their share of our 60 basis points objective and describe what they need to deliver those results. In this Branch wide business plan and financial plan, after such a difficult and challenging year, the theme for FY 09-10 is "Back to the Basics." The key will be getting back to creating Alpha in each assets class, finding new sources of base return or Beta, and cutting Costs by an average of 15%. Call it our A, B, C's.



Desired Outcome

The desired outcome of the Investment Branch is very straight forward and clear: 1) earn at least an absolute return of 8% per year over 20 to 30 years, 2) outperform the Policy Benchmark portfolio by 60 basis points annually without excess risk, and 3) prudently diversify the portfolio and strive for lower costs.

These three goals take precedence over all others. While in the 1980's and 90's, it looked easy to accomplish most of these three; the current decade of the '00's has proven it is actually very difficult and challenging. There are times the Investment Committee has added additional goals

equal to these three. During that time, we all learned it defused the focus on the core mission and made it nearly impossible to accomplish everything all at once. Therefore, the lesson learned is that these three have to be paramount above all else and to the exclusion of all else; otherwise the entire pension plan and defined benefit system is threatened.

The other desired outcomes set forth by the Investment Committee focus on two key areas, climate change and diversity. Both areas are multi year efforts and the desired outcomes are not as much a set objective as they are more core values. Therefore, we do not have a discreet outcome for each year, but rather milestones for continual improvements.

Under the Climate Change effort this year, we will continue to expand our investment program in real estate, private equity and global equity, as well as our risk mitigate in real estate and fixed income. With Jack's leadership in CERES and our involvement with the P-8 and multiple coalitions in Corporate Governance, we will continue to expand our program. On diversity, the major effort of the year will be the Corporate Governance conference with Stanford and CalPERS to enhance the diversity of Corporate Boards. In addition, within the Investment Branch, we will expand our efforts with the DIM taskforce (Diversity in Investment Management) and our developing manager programs.

Key Success Factors & Challenges

Without question, the major challenge we face is the uncertainty of economic growth in the U.S. and across the globe. We are dealing with the most difficult investment climate since 1973-74 and possibly back to the great Depression. As we developed this business plan we are facing 9.5 % unemployment within the U.S. and economic weakness across the globe. A prominent economist and academic recently pointed out that in the past 30 years, if you were told the Earning Per Share and the sales of a company, combined with the level of interest rates GDP growth, you would have been able to very accurately predict the value of the companies equity and debt securities. Yet today, with that same information you would have no clue as to the price of those securities, you would need to know the global investor psychology at that point in time, something that is not a hard data fact. So we say again, not as an excuse but a matter of fact, this is one of the most difficult investment climates in the past 80 years.

Another enormous challenge before us as we start the new Fiscal Year is that we are required to interpret these difficult markets in 15% less work time than before. The three day, State of California furloughs mean, besides the cut in pay, there is also 15% less work time for all employees. We only have to look to other nations that have similar short work weeks and

work cultures to see that total productivity does in fact suffer. Yet the fiduciary challenge before us has never been greater. At this point, we do not have an answer; but there is no question that worker productivity will suffer and possibly stamina as well.

Each year, in the overall Branch business plan, we raise this key success factor risk of operating a money management firm inside a governmental business structure. Due to the three day furloughs and other State of California budget problems, as a backdrop, this has never been more poignant. Ennis Knupp has demonstrated that the government model costs 40 basis points per year versus other more traditional money management business models. This performance drag may be even greater in the current environment. Staff fully recognizes this risk is not a simple issue and the solution followed by University Endowments and our pension peers in Canada and Europe is not even easily discussed in the current government climate. Nevertheless, the issue is raised each year because it does remain a success risk factor and is worthy of remembering.

One of our key factors that has led to success in past years has been our Investment Branch culture and Staff. This diverse team has shown it can make extra return in normal economic conditions and can compete with the best investment management firms in the global market. In our new Headquarters, new equipment and trading platforms will allow us to manage more assets. With the shorten work time and current economic environment, it will be critical to maintain and expand our open culture and environment for success.

Lastly, another positive success factor is our ability to access some of the best and brightest minds in the investment management business. While the current State of California's difficulties do impinge on our ability to hire some of these talents, we continue to build a network among our consultants, money managers, academics, and research firms. Flexibility in hiring and contracting with firms, and budgets for travel and education are critical to maintaining this success factor.

Business Plan

Our business plan for the year is built on our theme: "Back to the Basics" – no Branch re-organizations, no grandiose development plans, but back to the core basic objectives of blocking and tackling, to use a sports metaphor.

ALPHA - Create 60 basis points of alpha over the Policy benchmark. – From 2003 to 2007, we were able to outperform our Policy benchmark in almost each asset class. At the Total Fund level, at times we were able to produce double the overall objective. Quite frankly,

to many we made it look easy. But once again, last year proved otherwise. We underperformed in almost every area of the portfolio and underperformed the policy objective by too wide a margin. We need to get back to the basics and rebuild our performance one day and one month at a time.

BETA – Find three new sources of return patterns that provide diversification to the portfolio. – From September 15, 2008 to March of 2009, we just completed one of the most volatile markets in U.S. history. During this time, we found that our expected diversification abandoned us. Different markets and asset classes reacted almost in lock step day-to-day. Given that experience, Staff feels we need to research and find alternative sources of return that can provide better diversification in both normal and extreme environments. The new Absolute Return and Infrastructure investments will be two of those areas. In addition, Investments has set the objective to study Commodity investing and Liability Driven investing, both would potentially offer a different return pattern for the existing portfolio. Lastly, the Innovation & Risk unit will be tasked with developing other ideas during the years.

COST - Reduce our cost to run the portfolio and branch by 15%. – Given the decline in assets under management (AUM) we need to reduce our overall cost structure more in line with our AUM. The primarily reduction will come in our largest cost center, external investment managers. However, we can also look for ways to reduce costs inside the organization. The CalSTRS investment program remains one of the lowest cost portfolios in the CEM universe. Over the past decade, we have in fact been the second lowest costs fund. Since expenses are a direct drag on investment performance management, the cost is critical in such a challenging economic climate. In the past Fiscal Year 08-09, we did achieve a 15% reduction in both internal Branch costs and the external Continuous Appropriation expenses.

Financial Plan

A key component of the business plan is the financial plan. To gauge our resource needs and to manage our costs, the CIO developed the following 10-Year Financial Plan (Plan). Research has shown that investment firm's costs are driven by a combination of AUM and the complexity of the portfolio.

The decade of the 2000's has been extremely challenging, yet as testimony to the validity of the Plan, the outcomes have fallen within the expected range. Thanks to the volatility, we have hit the lower range, climbed to the upper range, only to fall back to the lower range. Through it all, the Plan has proven to be a valid road map to plan for the future.

The following plan shows the anticipation and hopes for growth in AUM. The Plan assumes the current level of complexity of the Portfolio. If more asset classes are added and the current asset classes grow more diverse, the cost structure will rise. We use larger plans as a gauge for the future road map; CalPERS, the Dutch Fund, APG, the Korean Pension Service (KPS), the Norwegian Sovereign Wealth Fund, and the two halves of TIAA-CREF serve as examples ranging from $175 billion to $350 billion in AUM. The Plan forecasts a smaller Staff and cost compared to all the others, with the sole exception of the Norwegian Sovereign Wealth Fund which is run by the government constrained Federal Reserve Bank.

Not surprising, the more complex an investment portfolio becomes, the higher the overall cost structure. As we have added more active management and expanded into new investment areas, our cost structure has risen. While still one of the lower cost investment plans, we are approaching some of our peers. If we expand active management or enhance the strategies under the Absolute Return asset class, we can forecast our cost structure will rise close to that of the larger funds. According to the CEM back in 2004, when CalPERS was our size today, their investment operation ran at a cost of 24.7 basis points. This compares to our current CEM cost factor of 22 basis points. In the Plan, we estimate the budget cost to be around 17 basis points, the difference compared to the CEM figure has to do with the expensing rather than amortization of private equity management fees.

The lion's share of the cost to manage the total investment portfolio is driven by the external investment managers, Line 7 in the Plan. In total, they comprise 82% of the annual cost. The decision in 2005 to expand the use of active management resulted, as expected, in a bump in our cost structure. As we re-visit the active/passive split this fall, we will discuss how changes will affect our total costs structure.

Budget and Resources

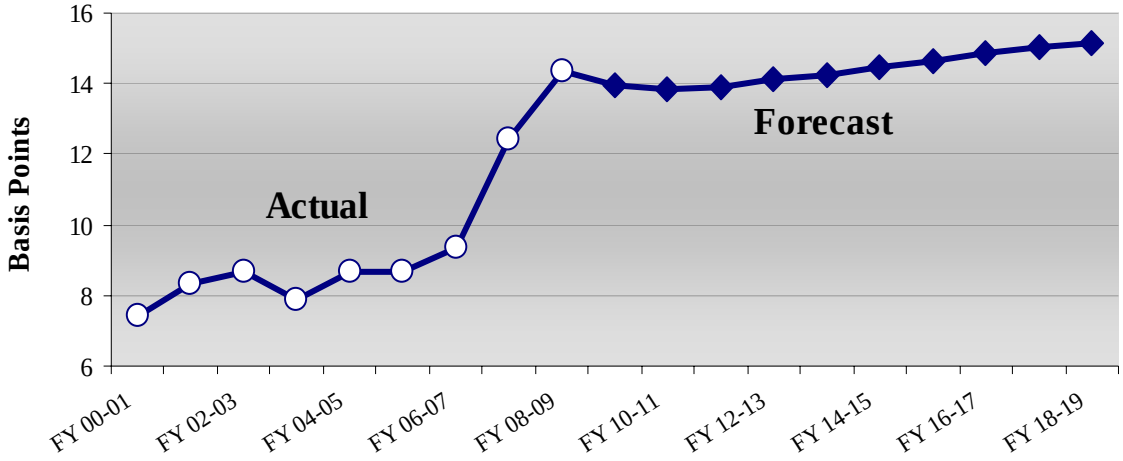
Our FY 09-10 Budget has already been approved by the Board and the Legislature, yet like most things in FY 08-09 that too remains uncertain. While the Investment Branch had requested up to nine additional positions, that request may significantly scaled back or spread over the next two years depending upon final budget decisions.

Looking to the future, our Support Budget, Line 6 in the Plan, will grow as the AUM grows; and our Continuous Appropriation, Line 15 in the Plan, will grow as the Portfolio becomes more complex. The cost of professional services, Line 9 in the Plan, is comprised of investment

consultants, independent fiduciaries, and legal services, and it is forecasted to grow to our third largest cost factor behind internal Staff salaries and benefits.

Below is a graph of the past and forecasted basis point costs of the Investment Portfolio. The significant increase between FY 06-07 and FY 07-08 is a result of higher external investment management fees, Line 7 in the Plan. They jumped in part due to the growth of the Portfolio by $26 billion last year and by the planned increase in active management. The costs are detailed in the Plan.

Investment Management Costs

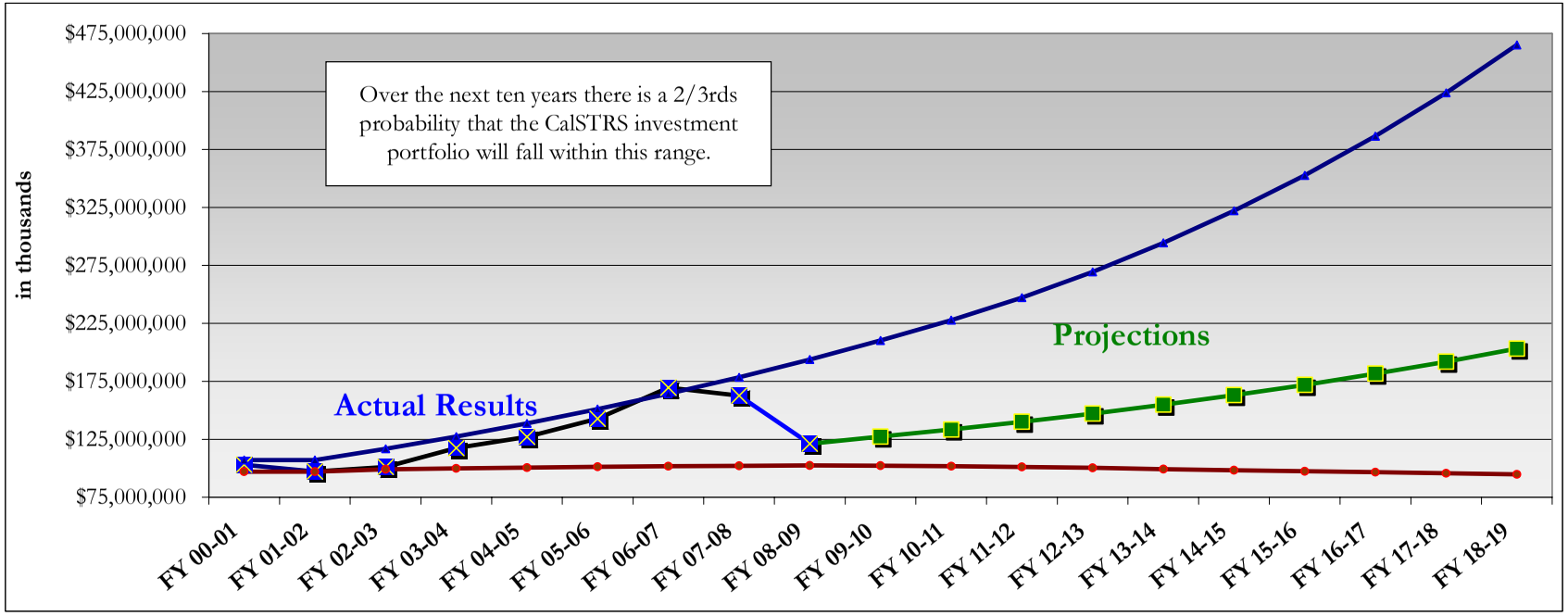


	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Retirement Funds (Net)	**$ 116,524,300**	$ 122,605,768	$ 128,695,836	$ 135,279,199	$ 142,395,816	$ 150,088,880	$ 158,405,084	$ 167,394,901	$ 177,112,894	$ 187,618,045	$ 198,974,115
Cash Balance Plan	$ 84,000	$ 79,800	$ 75,810	$ 72,020	$ 68,419	$ 64,998	$ 61,748	$ 58,660	$ 55,727	$ 52,941	$ 50,294
Supplemental Def. B.	$ 4,568,000	$ 4,616,640	$ 4,664,307	$ 4,711,021	$ 4,756,801	$ 4,661,665	$ 4,568,431	$ 4,477,063	$ 4,387,521	$ 4,299,771	$ 4,213,776
PENSION 2*	$ 149,093	$ 178,002	$ 209,803	$ 244,783	$ 283,261	$ 325,587	$ 372,146	$ 423,360	$ 479,697	$ 541,666	$ 609,833
Total {less 403(b)}	**$ 121,176,300**	**$ 127,302,208**	**$ 133,435,953**	**$ 140,062,240**	**$ 147,221,036**	**$ 154,815,543**	**$ 163,035,263**	**$ 171,930,624**	**$ 181,556,142**	**$ 191,970,757**	**$ 203,238,184**

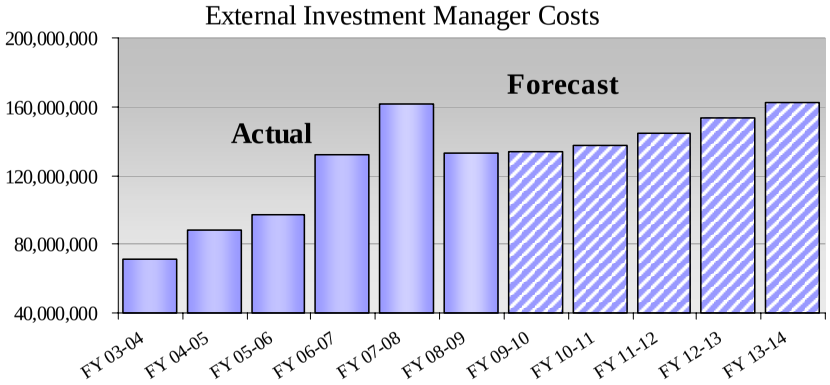
**PENSION 2 assets: 403(b), 457, Roth IRA & IRA assets managed outside the Investment Branch and not included in growth estimate. The growth forecast is not reliable.*

Low Return Environment**	$ 102,371,963	$ 102,290,866	$ 101,723,174	$ 101,078,315	$ 100,312,822	$ 99,322,832	$ 98,301,162	$ 97,446,800	$ 96,565,097	$ 95,655,180	$ 94,716,147
High Return Environment**	$ 125,978,300	$ 153,355,560	$ 231,634,053	$ 250,710,875	$ 272,601,141	$ 297,251,352	$ 324,593,564	$ 354,852,912	$ 388,327,508	$ 425,395,880	$ 466,400,178

***Return assumptions based on CalSTRS capital market Assumption for 10 year growth. High and low estimate based on 10 year standard deviation for CalSTRS current asset mix.*



This forecast is based upon the current CalSTRS capital market assumptions over the next ten years. Actual result will vary widely. Since this chart is based upon a ten year average, individual years return can and will vary significantly. The purpose of the chart is to help explain the potential growth in the investment portfolio. Asset allocation shifts and changes in the assumption will move the chart. As described above this only includes one standard deviation, or two thirds of the potential outcomes. This information is for estimation of the CalSTRS business plan and should not be used for any other forecast without the consultation of the CalSTRS Investment Branch.



The increase in investment manager fees from FY 06-07 to FY 07-08, Line 7 in the Plan, reflects the decision in 06 to hire more active managers to help generate a higher rate of return net of fees. A majority of the increase ($40 million) is from the retention of active emerging market managers; another part ($9 million) is due to the increase of external managers in fixed income. The total Plan costs rose from an average of around 9 basis points to 12 basis points.

CalSTRS 10 Year Comprehensive Financial Plan - CalSTRS Budget, Continuous App., and Direct Brokerage Investment Branch

	Fiscal Year	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
	Total Assets (in billions)	$ 121.2	$ 127.3	$ 133.4	$ 140.1	$ 147.2	$ 154.8	$ 163.0	$ 171.9	$ 181.6	$ 192.0	$ 203.2
	Investment Branch Support Budget											
1	**Total Staff - PY's** (Personnel years)	**103**	**107**	**111**	**115**	**120**	**125**	**130**	**135**	**141**	**147**	**153**
	Staff additions (Total+CG)	7	4	4	4	5	5	5	5	6	6	6
	Billion per PY	**$ 1.18**	**$ 1.19**	**$ 1.20**	**$ 1.22**	**$ 1.23**	**$ 1.24**	**$ 1.25**	**$ 1.27**	**$ 1.29**	**$ 1.31**	**$ 1.33**
2	Salaries (w/ Benefits & Inct)	$ 14,004,183	$ 15,096,182	$ 16,145,497	$ 17,406,930	$ 19,611,372	$ 21,980,281	$ 24,644,714	$ 26,550,248	$ 29,752,407	$ 33,071,836	$ 36,838,223
3	General Expense & IT exp./equipment	321,700	452,470	500,294	553,286	612,017	677,125	749,317	829,385	918,208	1,016,771	1,126,167
4	Travel (starting 2006)	708,366	781,480	862,155	951,176	1,049,408	1,157,805	1,277,423	1,409,424	1,555,094	1,715,850	1,893,260
5	Publications, HR, Intern prog. Misc ('06)	454,600	389,440	413,709	439,991	468,493	499,443	533,097	569,738	609,682	653,283	700,933
6	**TOTAL SUPPORT BUDGET**	$ 15,488,849	$ 16,719,572	$ 17,921,655	$ 19,351,383	$ 21,741,290	$ 24,314,654	$ 27,204,551	$ 29,358,795	$ 32,835,391	$ 36,457,740	$ 40,558,583
	Continuous Appropriation											
7	Investment Managers	132,760,000	133,640,287	137,704,544	144,748,743	153,787,482	162,095,991	172,661,541	184,134,391	196,595,312	210,132,210	222,851,008
8	Custodian & Legal Fees	6,555,000	6,882,750	7,226,888	7,588,232	7,967,643	8,366,026	8,784,327	9,223,543	9,684,720	10,168,956	10,677,404
9	Consultants Fees	8,185,200	8,594,460	9,024,183	9,475,392	9,949,162	10,446,620	10,968,951	11,517,398	12,093,268	12,697,932	13,332,828
10	Corporate Governance Staff & OE&E	4,504,885	4,768,332	5,225,503	5,497,248	5,938,529	6,243,409	6,845,878	7,342,454	7,883,001	8,631,944	9,129,334
11	Research & Market Data (from Dir B.)	1,452,700	1,601,512	1,697,603	1,799,459	1,907,426	2,021,872	2,143,184	2,271,775	2,408,082	2,552,567	2,705,721
12	Risk systems (Barra, BBg, Brk, Pt)	4,463,500	4,731,310	5,015,189	5,316,100	5,635,066	5,973,170	6,331,560	6,711,454	7,114,141	7,540,989	7,993,449
14	Misc.	605,000	629,200	654,368	680,543	707,764	736,075	765,518	796,139	827,984	861,104	895,548
15	**TOTAL CONTINUOUS**	$ 158,526,285	$ 160,847,851	$ 166,548,276	$ 175,105,717	$ 185,893,073	$ 195,883,162	$ 208,500,959	$ 221,997,154	$ 236,606,509	$ 252,585,703	$ 267,585,292
	Directed Brokerage Budget											
16	Research & Market Data	61,650	Discontinue Directed Brokerage.									
17	Software & Equipment	41,278	All costs shift to the Continuous Appropriation budget or the Support budget.									
18	**TOTAL DIR. BROKERAGE**	$ 102,928	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
19	**TOTAL EXPENSES**	**$ 174,118,062**	**$ 177,567,423**	**$ 184,469,932**	**$ 194,457,100**	**$ 207,634,363**	**$ 220,197,817**	**$ 235,705,510**	**$ 251,355,949**	**$ 269,441,900**	**$ 289,043,442**	**$ 308,143,875**
20	**% of ASSETS (BPs)**	**14.37**	**13.95**	**13.82**	**13.88**	**14.10**	**14.22**	**14.46**	**14.62**	**14.84**	**15.06**	**15.16**

Conclusion

Without question, last Fiscal Year was one of the most challenging years of our professional careers. Students in economic classes and MBA courses will be studying about the fall of 2008. The portfolio has dropped to a value we last saw in 2004, and the funded status is back to where we were in the mid 1990's. Our world has changed. In many ways it's like someone hit the reset button and we are back to where we were after September 11th, 2001. At that time, we were able to turn around our poor performance relative to our benchmark and our peers. From 2003 to 2007 we did just that, exceeded our benchmarks and outperformed 90% of the other pension plans in the U.S. The Investment Branch is committed and confident we can do it again. It is not out of arrogance, we know it's more challenging than before, but with an inner confidence that the time is now and the pressure is squarely on our shoulders to get the job done for the teachers of California and the Retirement Board.

A. Global Equities

2009-10 Business Plan

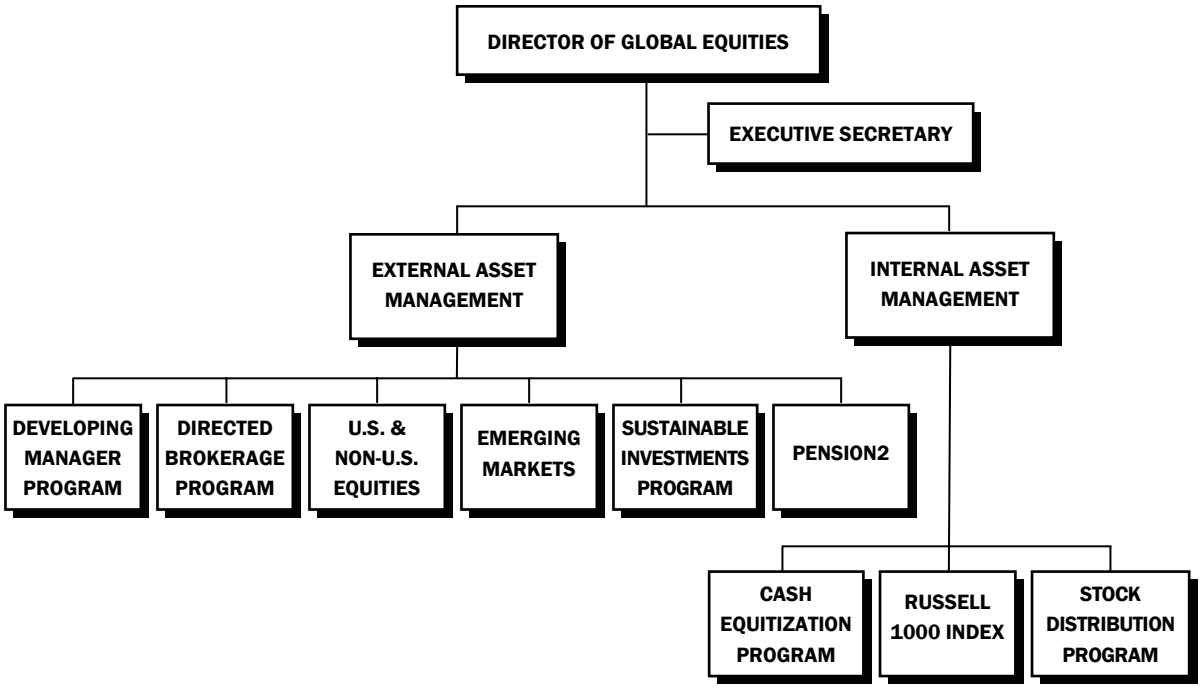
Global Equities—Unit Description

The Global Equities Unit consists of two core programs—External and Internal Asset Management. Ancillary programs include oversight and management of the Developing Manager Program, the Sustainable Investments Program, the Cash Equitization Program, the Stock Distribution Program, the Directed Brokerage Program, and evaluation of investment options for inclusion in Pension2 which consists of 403(b), 457, and Roth 403(b) options for CalSTRS' members. The primary objective of this asset class is to generate alpha to meet CalSTRS' obligation to pay benefits to its membership.

The Global Equity Portfolio is 24% internally managed and 76% externally managed. Global Equities is currently staffed with 10 investment professionals, and 1 support staff.

Business Sub-units	Personnel
• External Management	6.0
• Internal Management	4.0
• Support Staff	1.0
➢ Total Staff	11.0

An organization chart depicting the structure of the Global Equities Portfolio follows:



Desired Outcome

The Global Equities asset class goal is to beat the Russell 3000 ex-tobacco benchmark by 30 basis points for the U.S. Portfolio, and to beat the MSCI All Country World ex-U.S. ex-tobacco Index by 54 basis points for the Non-U.S. Portfolio. Based on our share of the assets, that represents 21 bps (35%) of the total Fund's objective to generate 60 bps over the total plan benchmark.

Staff has developed a creative plan to achieve Global Equities' alpha target in the current, challenging environment. A description of both the current investment environment and staff's investment strategy are discussed below.

Fiscal Year 08-09 will be remembered as one of the worst years in equity market history. After the broad equity markets posted modest gains in July and August, conditions fully unraveled in September with the bankruptcy of Lehman Brothers and the government bailout of AIG, which resulted in mass panic throughout the financial system. The turmoil in the U.S. evolved into a global economic problem and no region was spared during this tumultuous period. Through the first six months of the fiscal year, global equities, marked by intense selling pressure and elevated market volatility, lost roughly 40%. Leading the decline, emerging markets experienced the worst six month return on record with the index falling over 47%. The oversold market conditions and a general belief that the global economy had bottomed-out were the primary catalysts for the market rally that began in mid-March. Even with this recent rally, the global equity markets couldn't overcome the heavy losses incurred from earlier in the year and ended the fiscal year with losses in excess of 30%. Global equity markets are considered undervalued on an historical basis. Uncertainty with the global economic recovery, however, could prevent the current rally from continuing and possibly leave stocks trading sideways over the next 6 to 12 months.

While equity markets were marked by high correlations during the recent bear market (high correlations meaning markets all moving down together), the rally off the lows at points exhibited significant differences in returns among countries, styles, and sectors. Continuing to effectively allocate the portfolio among the choices will add alpha regardless of the market environment.

Success in the current high volatility market environment requires discipline and maximum flexibility expressed as willingness to act tactically. Along with the long-term strategic plan, risk-controlled tactical flexibility can add value when extreme levels are reached. Tactical effectiveness requires as many tools as possible in order to assure that optimal solutions are created or the most effective portfolio is maintained. Staff will review asset allocation posture, style and sector biases, and review and execute overall investment management plan targets.

Staff intends to review the roster of managers. Many managers were selected and funded several years ago. Since these managers were selected, a variety of changes have occurred. The market environment has changed and is now more volatile. As a result, alpha has become much more difficult to generate. Relationships will be maintained with only the highest conviction active managers that generate high sources of consistent alpha. Staff will be reviewing and evaluating these manager relationships to assure that they are still appropriate in the current environment. In some instances, manager assets may need to be increased or decreased. In other instances, some managers may be replaced, or new managers may be added to the roster.

Staff will also explore new sources for generating alpha. Staff will evaluate a variety of structured products such as asset trusts, structured notes, warrants, portable alpha, swaps, etc., that generate an index return plus a guaranteed amount of alpha above the benchmark. These types of investments are very risk-controlled, easy to move into and out of as needs change, and provide a source of guaranteed alpha.

In addition to considering new sources of alpha, staff will continue to evaluate new mandates for active or passive management. In recent years, index changes have created sub-asset opportunities such as international small cap and frontier markets, which staff continues to monitor for possible inclusion in the portfolio.

Staff has been successfully managing a Russell 1000 passive portfolio for over 10 years. During the next fiscal year, staff will evaluate the merits of managing several new portfolios. Staff has been running an MSCI Canada paper portfolio, in conjunction with an external manager, with the expectation to complete the transition to sole internal management for this portfolio in the third quarter of 2009. Additionally, staff will be putting the infrastructure in place to be able to manage a passive Russell 3000 portfolio.

Another important initiative will be the evaluation of managing a passive MSCI EAFE plus Canada portfolio in-house. Staff will also continue to develop the skill and experience to enable effective internal management of transitions. Internal management provides maximum flexibility and significant cost savings when compared to external management.

Controlling costs will be a high priority, given the difficult economic and budgetary environment, coupled with the potential implementation of additional Global Equity programs. The Investment Branch has established a goal of a 15% reduction in the overall costs to the Investment Office. Staff is cognizant of this goal and has identified a variety of techniques to assist in achieving cost savings across the Global Equities Portfolio.

External manager fee schedules are calculated, in part, on the market value of their portfolios. Given that market values of these portfolios have dropped, investment management fees will be correspondingly lower. Additionally, staff is reviewing all of the external manager fee schedules to identify managers whose fee schedules may be negotiated downward.

Staff is also reviewing all of our current services to determine whether they are critically necessary to support our business needs. We are currently in aggressive negotiations with our research and analytics service providers to negotiate lower monthly fees.

Key Success Factors & Challenges

Today's dynamic environment offers increased opportunities and risks. The ability to remain disciplined in approach and implementation keeps our focus on earning superior risk-adjusted returns while mitigating the effects of behavioral flaws. The more challenging the environment the more important discipline and focus become. Specifically, staff will continue developing our risk and attribution analytics to identify risk components, exposures, and performance drivers at the security, portfolio, and program levels.

The challenges in navigating through a bearish market environment include resisting many strategies relying on very recent strong performance as the justification for future attractiveness while remaining receptive to new strategies that offer long-term alpha opportunities. Looking forward, certain strategies such as frontier markets (e.g., Vietnam), international small cap, and structured products may be more likely to offer lower correlations and better alpha opportunities. One of the major challenges to implement these new strategies will be to finalize a streamlined Request for Proposal (RFP) process, which has historically been lengthy and cumbersome. Fortunately, a business process re-engineering project has been underway to improve these efforts. This team is targeting a pilot test of the streamlined solicitation process in August 2009.

This environment necessitates closer management of the external equity managers by staff. Staff will also need to closely monitor asset allocation levels to ensure compliance with policies, and to manage unintended style drifts.

The key factor to the success of implementing these complex strategies is having an adequate number of sophisticated, experienced staff to select, evaluate, and manage these investments. Global Equities staff is currently working at maximum capacity. It is critical that Global Equities is properly staffed in order to effectively implement the components of this proposed Business Plan.

Conclusion

Fiscal Year 08-09 will be remembered as one of the worst years in equity market history. The coming fiscal year will also be difficult to navigate and will pose numerous challenges to investors. Staff will continue to diligently manage the current roster of managers, and may make changes or enhancements to the external manager portfolios as necessary. Additionally, staff will continually explore new sources for generating alpha, and will evaluate a variety of new products and mandates to enhance portfolio performance.

B. Fixed Income

2009-10 Business Plan

Fixed Income Unit Description

The primary, or core, function of the Fixed Income Unit is to manage the System's allocation to fixed income assets in such a way as to provide diversification to the Total Investment Portfolio, while maximizing the risk-adjusted return. In addition to the investment management function, other "non-core" investment programs (i.e., Currency Management and Securities Lending) that have been designed to add incremental income to the Fund are also managed within the Fixed Income Unit.

The investment programs managed within the Fixed Income Unit are structured in such a way as to take advantage of the benefits/efficiencies of both internal and external management as follows.

Business Units	Internally Managed	Externally Managed
• Fixed Income Asset Management	76.5%	23.5%
• Currency Management Program[1]	100%	0%
• Securities Lending Program[2]	48%	52%

Currently, twenty staff members are responsible for the management of the portfolios and programs within the Fixed Income Unit as follows:

Business Units	Internal Staff	External Managers
• Fixed Income Asset Management[3]	14.0	10.0
• Currency Management Program[4]	2.0	0.0
• Securities Lending Program	2.0	2.0
• Support Staff	2.0	n/a
➤ Total	20.0	12.0

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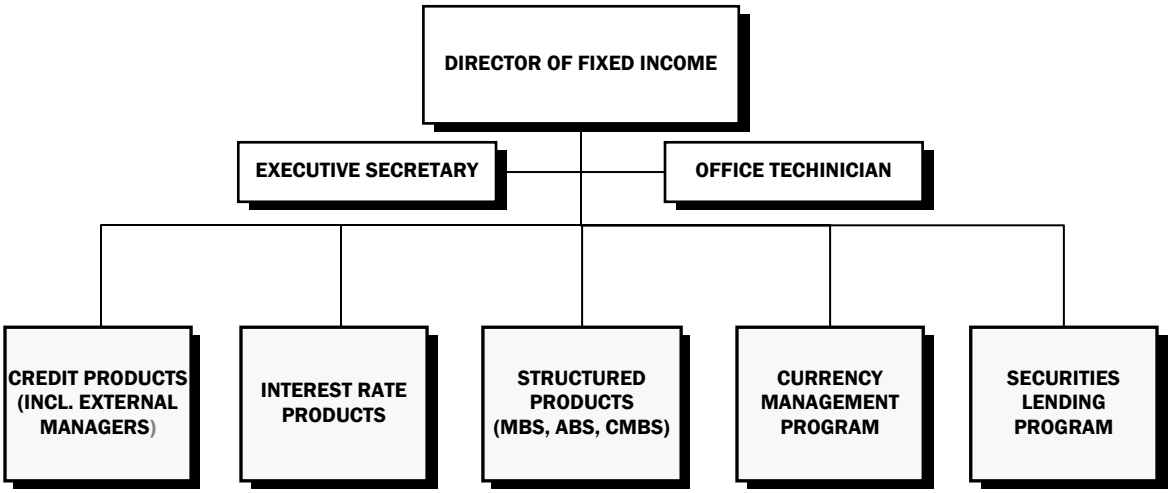
[1]*External Currency Managers implementation to begin July 2009; anticipate 80%/20% mix*

[2]*Reflects Cash Collateral Asset Management breakdown*

[3]*Internal staffing includes long and short-term asset management*

[4]*Anticipate up to four external currency managers implemented FY09/2010*

An organization chart depicting the structure of the Fixed Income Unit follows:



Desired Outcome

Fixed Income - The strategic performance objective for CalSTRS' Fixed Income Portfolio (Portfolio) is outperformance vs. the Policy Benchmark [(95%) Barclays Capital Aggregate + (5%) Barclays Capital U.S. High Yield Cash Pay 2% Issuer Constrained Index (ex-tobacco)] over a full market cycle, which is usually considered to be three-to-five years. The internally managed (Core) fixed income assets are expected to outperform the Barclays Capital Aggregate benchmark by up to 10 basis points annually, and the externally managed (Opportunistic) fixed income assets are expected to outperform the Portfolio Policy Benchmark by up to 35 basis points annually.

Alpha is expected to be generated through a variety of sources. First, additional value is to be partially generated by means of a "top down" approach through asset allocation. Assets are allocated among the different strategies and major asset classes that make up the total fixed income portfolio (i.e., Corporates, Treasuries, High Yield, etc.), in order to take advantage of under or over-valuation opportunities. Additional value is also expected to be generated through a combination of sector rotation and security selection strategies within each of the individual fixed income portfolios. Taken together, asset allocation, sector rotation, and security selection are expected to meet the strategic performance objectives established for the fixed income assets. Based on our share of the assets, that represents 5% of the total plan objective of 60 basis points.

Currency Management - The primary emphasis of the Currency Management Program is the preservation of the value of the Fund's non-U.S. public and private equity assets against a strengthening U.S. dollar. A secondary objective is to design strategies to take advantage of potential alpha opportunities in the currency markets. While the performance objectives are currently being finalized with the external currency managers, it is expected that they will be able to generate between 100-125 basis points annually in alpha. Up to 20% of the allocation to non-dollar assets is anticipated to be directed toward this strategy, contributing roughly 6% of the total plan objective of 60 basis points.

Securities Lending - The Securities Lending Program generates incremental income to the Fund through collateralized, low-risk, short-term loans using a portion of the lendable assets within the Investment Portfolio. Although there are no explicit goals with respect to alpha generation, the program has added nearly five basis points, on average, annually to the return of the Fund over the past twenty years, representing approximately 8% of the total plan objective of 60 basis points.

Taken together, the Fixed Income Asset Management, Currency Management and Securities Lending programs are anticipated to contribute roughly 19% of the Total Fund's alpha target.

Last year, in response to the financial crisis culminating in the bankruptcy of Lehman Brothers, governments around the world began injecting massive amounts of capital into the banking system through a wide range of programs designed to restore liquidity and confidence in the global financial system. The most noteworthy of these measures has come in the way of monetary easing, with the Federal Reserve (Fed) cutting the Federal Funds interest rate to a range of 0% - .25%; the first time a range has ever been established for the Fed Funds rate. During this period, the Fed also announced and began implementing significant outright purchases of mortgage, agency, and treasury bonds to further bolster investor confidence. Both of these actions are clear signs that the Fed is serious about providing much needed liquidity to the markets.

We have seen some evidence that policy actions are taking hold and improvements in markets are occurring. Over the past several months, risk-taking and liquidity are showing some signs of improvement as investors are taking on slightly more risk and reducing their dependence on low-risk assets such as U.S. Government securities. Though we are cautious to call this a bottoming out in the broader market just yet, as markets are often erratic at inflection points, the fixed income team continues to believe that the best prospects to meet our performance objectives going forward will be to structure the portfolios and programs to benefit from an economic turnaround (albeit somewhat tepid) by the end of 2009 or first

half of 2010. As such, we will position ourselves in assets that tend to perform better in an environment of moderate inflation and potentially higher interest rates, keeping in mind that our thesis requires an eventual improvement in the housing, as well as the equity markets, all on top of improved consumer sentiment; the latter largely dependant on the peak of the unemployment rate. As a result, fixed income should provide a moderate, but lower, total return in this environment as interest rates rise.

In addition to structuring the portfolios and programs to meet the performance objectives, controlling costs will also be a high priority, given the difficult economic and budgetary environment. The Investment Branch has established a goal of a 15% reduction in the overall costs to manage the Investment Office. A majority of the costs associated with the management of the fixed income program are external manager fees. Although a portion of these fees are calculated based upon the market value of the assets, which has been declining during the recent market turmoil, staff has been and will continue to review and adjust fee structures for the existing relationships, as well as any new strategies in order to better reflect an alignment of interests. Research subscription and analytical services fees will also be reviewed for cost savings, as appropriate.

Key Success Factors & Challenges

As described earlier, staff is structuring the portfolios and programs to benefit from signs of an economic turnaround toward the end of this year or the first half of next year. As our 2005 study of the role of fixed income in the total CalSTRS portfolio showed, assets that provide additional yield over risk-free, government securities should perform well in a stable economic environment. The main risk to this scenario would be deteriorating economic fundamentals and a return to the extreme volatility that characterized late 2008 and early 2009, which represented the two worst years on record for non-government fixed income assets. Should that occur, investors will again avoid all but the most liquid and risk-free assets. As a result, we will be selective in the spread product (i.e., non-government securities) to which we maintain/add exposure, based upon our risk management and stress testing tools that we have in place.

Despite the market environment and the challenges and opportunities it may present, the factors that continue over time to be critical to accomplishing our strategic performance objectives across each of the portfolios and programs managed within the Fixed Income Unit reside in: 1) the recruitment and retention of well-qualified staff and, 2) the ability of the investment staff to focus on the core, return-producing priorities within the constantly evolving, increasingly volatile fixed income, currency and lending markets.

Given CalSTRS' unique business model of operating an asset management business within a government structure, an ongoing challenge has been, and will continue to be, the attraction and retention of employees that have a diverse range of skills in today's multi-faceted investment markets. Historically, it has been difficult to recruit experienced staff, given the compensation structure and hiring process that has been in place. Fortunately, significant progress has been made to address these issues. However, even in light of the difficult employment environment for finance professionals, CalSTRS will have to continue to mitigate the risk of losing key back-up staff and cultivate an investment team that is well structured and prepared to navigate the Fund through this treacherous environment in which the System is struggling with an unfunded liability and low return prospects on the horizon.

In addition to attracting and retaining the highest caliber investment talent, another ongoing challenge, especially in this difficult economic and budgetary environment, will be to provide staff with the ability to efficiently implement and manage strategies designed to meet the Fund's financial goals. The effective use of technology and resources to enhance returns and structure portfolios to outperform has been a philosophy that CalSTRS has embraced over the years. However, opportunities to update or streamline administrative processes need to be supported so that investment staff is able to focus on key investment priorities and therefore meet our financial goals in the most efficient manner. For example, the Request for Proposal (RFP) processes currently in place make it difficult to be tactical in that, in some cases, it has taken up to a year to select the best external managers and get them under contract. Fortunately, a cross-functional team within the Investment Branch is working with Contract and Legal staff on a streamlined solicitation process due for a pilot test in August 2009.

Conclusion

In spite of the recent turbulent environment, staff has seen a substantial rebound in the Fixed Income Portfolio returns from the extreme underperformance we experienced late in 2008 and early in 2009. The fixed income team believes that the best prospects to meet our performance objectives going forward will be to structure the portfolios and programs we manage to benefit from an economic turnaround (albeit somewhat tepid) by the end of 2009 or first half of 2010. As such, we will position ourselves in assets that tend to perform better in an environment of moderate inflation and potentially higher interest rates, such as higher yielding, non-Government securities and floating-rate assets with yields that adjust with changes in interest rates. Given what we expect to be a tepid, rather bumpy economic turnaround, risk-controlled tactical flexibility will be critical going forward.

C. Real Estate

2009-10 Business Plan

Real Estate—Unit Information

Total Investment alpha objective over the total plan benchmark :

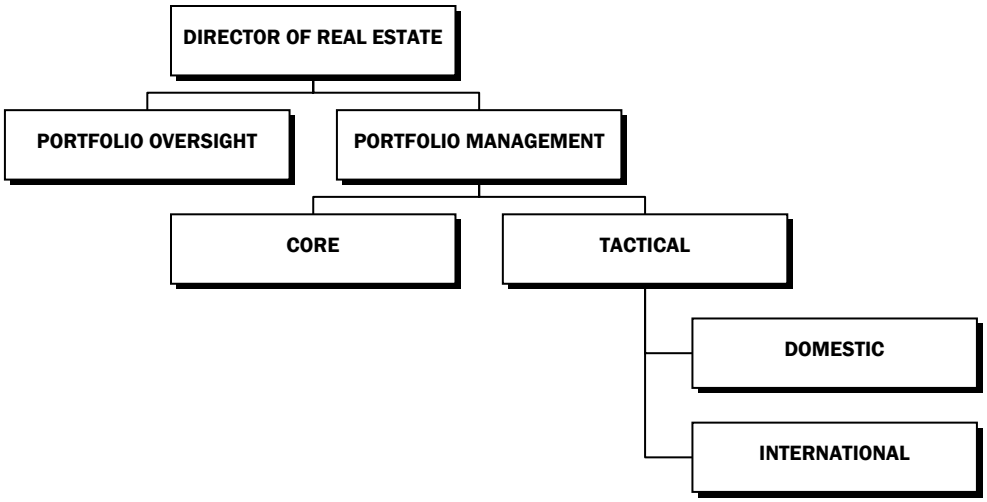
	60	Basis Points
➤ Real Estate Portfolio Share	**17**	Basis Points

The primary objective of the real estate asset class, within the overall CalSTRS Portfolio, is to provide diversification. The secondary objective is enhanced yields and stable cash flows.

At present, investments are comprised of 78% domestic-22% international, with a long term goal of 20%-30% of the portfolio to be in international markets.

Currently, the Real Estate staff is made up of 15 full-time and one-part time staff members. We added five new employees at the beginning of last fiscal year and have had no other changes to staffing. While the furlough imposed on all CalSTRS employees has clearly not had a favorable effect on efficiency and morale, the Real Estate staff remains focused and committed to achieving the above performance goals.

Business Units	Personnel
• Real Estate Portfolio Management	10.5
• Real Estate Portfolio Oversight	4.0
• Support Staff	2.0
➤ Total Staff	15.5



Desired Outcome

The strategic performance objective for CalSTRS' Real Estate Portfolio is to outperform vs. the National Council of Real Estate Investment Fiduciaries (NCREIF) Index. The NCREIF Index is a widely used index of unleveraged quarterly total returns produced by a database of commercial real estate properties (office, retail, industrial, hotel, and apartment), held by tax-exempt institutional investors. The core portfolio has a long-term targeted minimum real net-of-fees IRR of 5% and is expected to produce market level returns over time with a commensurate level of risk. Hence, its nominal performance is expected to mirror the composite NCREIF Property Index on a net-of-fees basis. The tactical portfolio has a targeted minimum real net-of-fees IRR of 9%. Overall, we expect the tactical portfolio to exceed the index by 300 basis points. Assuming a 50/50 weighting of tactical and core, we have set a goal for the overall real estate portfolio to exceed the NCREIF Index by 150 basis points.

Key Success Factors & Challenges

The severity and duration of the credit crisis and subsequent global recession have created significant challenges for virtually all asset classes, including commercial real estate. These challenges include:

- Global GDP is expected to decline in 2009 for the first time in over 60 years, the U.S. economy is in the midst of what will likely be its longest and most severe recession in the post-war era, and global trade activity has decreased significantly.
- The U.S. recession has also resulted in sharp losses in payroll employment across a broad swath of industry sectors and a spike in unemployment rates to a 26 year high. In addition, there has been a major retrenchment in U.S. consumer spending, driven by high levels of unemployment, still falling home prices and other negative wealth effects, and reduced consumer confidence.
- Despite relatively well constrained new supply, real estate vacancy rates are increasing significantly as a result of the dramatic reduction in tenant demand and the surge in tenant credit problems brought on by the recession. Space market fundamentals continue to deteriorate, with vacancy rates across most markets and property types expected to eventually exceed those of the real estate downturn of the 1990's, thus putting significant downward pressure on rental rates and property income.

- Volatile capital markets have contributed to the challenges confronting the commercial real estate asset class. Limited availability and the high cost of both equity and debt capital has put upward pressure on capitalization rates which, combined with declining operating income, has led to significant price corrections in the property markets.
- Valuation declines have in turn made it very difficult to refinance maturing debt, and led to increased levels of distress in commercial real estate markets as property owners struggle to deleverage. Transaction volumes have fallen dramatically, partially due to lack of debt capital to finance acquisitions, thereby reducing liquidity in the real estate market.
- The dual space and capital market headwinds confronting real estate have also directly contributed to financial and organizational disruptions at certain real estate operating companies and investment managers that CalSTRS does business with. This has subsequently led to a need for a much more intense level of monitoring and oversight of these relationships by our staff.

In light of the above issues, and consistent with the general theme of "Back to the Basics", our focus continues to be on the aggressive management and operations of our existing portfolio. Coupled with the "Back to the Basics" theme has been a "Take the Pain Now" approach to valuing the portfolio. Historically, external fund managers have been slow to reflect valuation declines for a variety of reasons. Staff believes this approach only masks and extends the negative impacts to the portfolio. While significant write downs are extremely unpleasant, in the long run the portfolio will be in a stronger position to capitalize on opportunities going forward and not burdened by the baggage of drawn out devaluations. In addition, delays in appropriately valuing real estate holdings tend to lead to suboptimal decisions as regards to incremental deployment of capital in support of existing properties, which ties into our third theme of "Not Throwing Good Money After Bad." We must ensure that all incremental capital funded on existing investments be subject to the same economic criteria as new investments. We will continue to work with our partners on the portfolio assets to both get through the recession and be well-positioned to participate in the recovery of the markets.

The key external factors driving a recovery in real estate fundamentals and values are sustained improvement in the credit markets and the economy, including resumption of job growth. Such improvements will subsequently drive increases in occupancy and rents for office and

apartments. They also support heightened consumer confidence levels that, combined with lower unemployment rates, should lead to increased consumer spending and thereby generate increased user demand for retail, industrial and hotels. Key internal factors are as before, staff recruitment, retention and training. A focused, experienced and well-trained staff is essential to successful selection, oversight and management of partners, which in the current unsettled environment is likely to be a significant driver of returns and outperformance.

The Business Plan for this year is a reflection of the volatile nature of the marketplace. We will continue to focus on the existing portfolio and partner relationships. Generally, we feel our investment partners have adequate capital allocated to both de-leverage existing assets and take advantage of the most compelling market opportunities as they occur. We will continue our efforts from last year to proactively evaluate our partners and their investment decisions in an effort to move CalSTRS capital to those strategies and partners best positioned to achieve top tier investment performance in this challenging market. These initiatives could well include consolidation of managers.

Internally, as we evaluate partners and review portfolio operations, we are enhancing the training of our staff and constantly applying our collective knowledge of lessons learned. We are refining and improving our portfolio, risk management, cash flow and debt tracking processes and data bases. We are also reaching out to other investors to work together on troubled investments and will take this opportunity to reset investment terms and conditions (including reduced fees and improved alignment of interest measures, as appropriate) in favor of investors. Because an important part of successful investment performance is effectively managing not only assets but also liabilities, we are also working to lower the cost of debt capital and to more favorably reset terms and conditions on our portfolio debt structure, especially in situations of more highly leveraged non-recourse debt. We feel our current relationships generally give us adequate coverage of the investment market, and we do not anticipate bringing in new partners or strategies, except for possible special situations involving a strategic relationship with another major institutional investor.

During the recent asset allocation review in June 2009, the Investment Committee raised the allocation target for Real Estate from 13% to 15% of the Investment Portfolio. The recent write downs of the real estate assets brings our current portfolio value to approximately 11% of the Investment Portfolio. Assuming normalized returns for the CalSTRS overall and real estate portfolios going forward, we expect that real estate will remain in the range of 9-13% over the next few years with a reduced investment pace. Like last year, we feel this general reduction in pace is appropriate given that compelling new investment opportunities remain limited at this time.

We were fortunate to be able to add five quality investment professionals to our real estate staff over the past year. These additions included recent college graduates and seasoned professionals. All are acclimating well and making valuable contributions to the management of the portfolio and oversight of our partners. We may add one additional staff position in the next year to augment the portfolio management focus and develop new programs as conditions warrant.

Today, the fifteen staff members manage 65 relationships and a real estate portfolio with a current value of $13 billion. While the portfolio value has decreased, the challenges have increased with several of our partner relationships facing meaningful financial and organizational challenges of their own that must be proactively monitored by staff.

While we are mindful of lowering expenses wherever possible, effective investment monitoring requires staff to travel to meet with managers/partners and oversee investments. Real estate is a tangible asset and cannot simply be managed by desktop analysis alone. Some of staff's best investment decisions have involved passing on a potential opportunity as a direct result of close, on-the-ground scrutiny.

In the past, we utilized our independent fiduciaries to assist staff in the growth of the portfolio by analyzing specific investment opportunities and new initiatives. We will continue to use these services but with a shifting focus that will now emphasize assisting staff in reviewing, analyzing and managing the most immediate challenges confronting the existing portfolio. This outsourced work will be gradually transitioned to internal resources where appropriate as our current staff gains the necessary expertise to assume these duties and as we are able to increase capacity through additional staffing. However, we will constantly seek out second opinions from these external resources to assure we are acting in our best fiduciary capacity that is reflective of the most current thinking, trends, and new ideas, including both defensive and offensive initiatives, in the marketplace.

Conclusion

The global recession and credit crisis have led to a sharp correction in real estate values and returns both in the US and across the globe. Real estate fundamentals measured by occupancies and revenues are challenged as both consumers and businesses have reduced investment and spending activity as a result of one of the most severe contractions in GDP and payroll employment in the post-war era. Although broader credit markets have stabilized, real estate markets continue to struggle with limited availability and high cost of debt capital, exacerbating valuation declines amidst sparse transaction volumes.

The key external factors driving a recovery in real estate fundamentals and values are sustained improvement in the credit markets and the economy, including resumption of job growth. Such improvements will subsequently drive increases in occupancy and rents for office and apartments. They also support heightened consumer confidence levels that, combined with lower unemployment rates, should lead to increased consumer spending and thereby generate increased user demand for retail, industrial and hotels. Key internal factors are as before, staff recruitment, retention and training. A focused, experienced and well-trained staff is essential to successful selection, oversight and management of partners, which in the current unsettled environment is likely to be a significant driver of returns and outperformance.

The Real Estate Business Plan will echo the investment office theme of a "back to the basics" approach. We will work with our investment partners to:

- actively manage assets with the goals to maximize occupancy and revenues from credit tenants
- monitor leverage levels and maturities with a long term goal to lower portfolio leverage
- achieve improved terms and conditions with investment managers, thereby gaining greater control provisions, reduced fees, and improved returns either directly or through partnering with like-minded investors; and to
- seek out opportunities from distressed sellers of equity or debt positions to achieve outsized risk-adjusted returns

CalSTRS has adequate existing capital commitments and new capital allocation availability to react to market opportunities. However, we do not anticipate significant transaction volumes to occur until 2010 and beyond when there are likely to be more compelling market opportunities from both a pricing and availability perspective. Looking forward three to five years, as we did last year, becomes even more challenging given the unprecedented events over the last 12 months.

The size of the CalSTRS fund, and correspondingly the size of the real estate portfolio, will be smaller than the projections of a year ago. Nevertheless, the goals remain unchanged over the next 3 - 5 years: focus on top-performing partners, train and selectively grow personnel on specialized investment strategies, and maintain a disciplined approach that channels CalSTRS capital into a diversified investment strategy that produces attractive risk-adjusted returns and achieves investment performance goals. Despite the uncertainties regarding the timing and strength of the economic recovery, and the still unsettled nature of the real estate space and capital markets, we are confident that CalSTRS is well positioned to participate in the ultimate recovery of commercial real estate markets both domestically and globally.

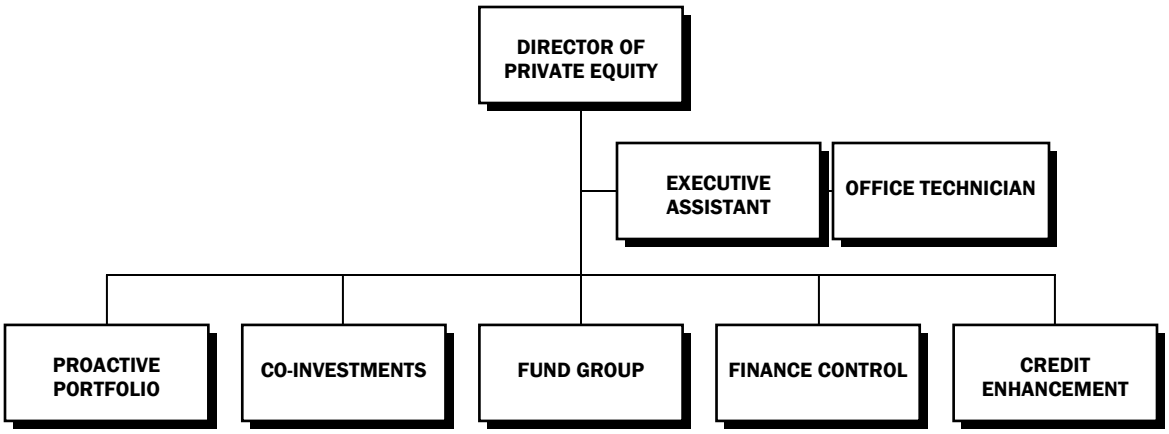
D. Private Equity

2009-10 Business Plan

Private Equity — Unit Description

- Private Equity (PE) manages a portfolio consisting of private equity limited partnerships managed by external general partners and direct side-by-side co-investments. PE also manages the Credit Enhancement Program (CEP), which underwrites municipal transactions on an opportunistic basis.
- PE investments are divided amongst four market segments: (1) Buyouts, (2) Equity Expansion, (3) Venture Capital, and (4) Distressed Debt. The Proactive Group is a sub-group within PE that focuses on new and next generation external managers as well as external managers dedicated to underserved urban and rural markets.
- PE has a benchmark consisting of the Russell 3000 plus 300 basis points. CEP has a goal of earning fee income with zero losses.
- PE is 90% externally managed through limited partnership funds and 10% internally managed through its co-investment portfolio. CEP is 100% internally managed.
- PE is currently budgeted for 20 personnel years as follows:

Business Units	Personnel
• Private Equity	13.0
• Proactive Group	2.0
• Credit Enhancement	3.0
• Support Staff	2.0
➤ Total Staff	20.0



Desired Outcome

The asset class goal for PE is to outperform its benchmark (Russell 3000 plus 300 basis points) by 150 basis points (i.e., Russell 3000 plus 450 basis points). Since PE assets constitute approximately 12% of total plan assets, the 150 basis points of outperformance equates to 18 basis points of the targeted 60 basis points of outperformance for the total plan, or 30% of the overall plan's target alpha.

Strategy Map

For most of the decade, PE investment returns benefited greatly from the extensive use of leverage. Credit conditions were particularly favorable from 2004 to 2007 and an unprecedentedly large volume of deals were done in this time period. Over the past year however, a worldwide credit crisis and serious global recession have resulted in crashing equity values, credit contraction and a drastic de-leveraging of the world's economies.

The private equity industry has suffered significant write-downs in the current calendar year due to the steep decline in public equity values. However, the private equity industry is well-positioned to capitalize from these lower equity values going forward. According to Preqin, private equity firms are sitting on in excess of $800 billion in committed but un-invested capital. Furthermore, many high quality companies are in need of or will soon be in need of capital. These companies will find it very difficult to raise capital due to the weak conditions of both the public equity markets and debt markets. Many will be forced to turn to private equity sources. In light of these market conditions, private equity investors are anticipating outstanding returns on their post-2008 investments once the U.S. and other world economies begin to recover.

In the short term, PE staff believes that the distressed debt subsector offers the best prospects for generating outsized returns. In 2007, in anticipation of challenging economic times, CalSTRS PE began to significantly increase its exposure to the distressed debt markets. This exposure currently represents 11.6% of the portfolio. Given the severity of the current economic downturn, PE staff believes that additional exposure to the debt subsector may be warranted in the near term.

In the medium to long term, PE performance will be driven primarily by its investment exposure to the buyout and equity expansion subsectors (by virtue of their disproportionately large size). Staff will continue to carefully monitor and manage CalSTRS's existing investments in these subsectors while prudently adding more exposure within the constraints of the overall plan allocation targets. Historically, the most profitable vintage years for buyout and equity expansion investments have been those following periods of financial distress.

Cost Reduction:

PE staff will work diligently to improve fund economics in its partnership investments. Staff will also work diligently to achieve cost savings by tightly managing travel and other expenses. Staff will also strive to frugally employ its outside advisors and consultants.

Key Success Factors & Challenges

Success Factors

- CalSTRS has one of the most respected private equity programs in the world. Reputation is very important in the private equity industry as it affords one access to both information and investment opportunities. General partners seek out investors that they perceive to be successful, knowledgeable and long-term oriented. A challenge and opportunity for the next PE Director will be to maintain the high standards of professionalism and integrity already established.

- The performance of the private equity industry is tied to the dynamics of the global capital markets. However, private equity investments typically have a 10-12 year life. Therefore, it is incumbent upon the PE Staff to steer the program in directions that take into account foreseeable long-term market trends, opportunities and risks.

- Although there are currently an abundance of private equity investment opportunities in the developed markets, PE should continue to expand its global reach. Emerging markets are projected to have the highest economic growth rates in the world for the foreseeable future as the economies of these countries industrialize and their middle classes expand. PE staff must be careful not to neglect longer-term trends and opportunities. Establishing the relationship infrastructure necessary to prudently invest in new private equity markets is a process that takes years not months.

- In addition to developing new geographical opportunities, PE will continue to develop new market opportunities within the proactive subsector. This includes the New and Next Generation Managers program as well as the Underserved Urban and Rural program.

Challenges Before Us

- Over the last couple of decades, the private equity industry has grown dramatically; from a cottage industry focused in large part on financial engineering into a hugely influential, complex, and bustling endeavor. Private equity programs such as CalSTRS PE have grown larger in response to not only larger assets under management but also escalating business model complexity and rising legal and regulatory demands. PE requires a robust support infrastructure with respect to legal, contracts, and human resources in order to remain competitive. High turnover within these groups is adversely affecting PE.

- Mandatory furloughs have cut resources by approximately 15%. A significant portion of PE resources are allocated to longer term opportunities (i.e., developing a presence in the emerging markets, proactive activities, clean energy and investing efforts, etc.). Extended furloughs are likely to disproportionately affect these longer term initiatives.

Other Areas

- PE will maintain its core strategy of making concentrated investments to top performing managers complemented by direct side-by-side co-investments in select portfolio companies on a no fee/no carry basis. PE will also opportunistically invest in general partner management companies and in secondary partnerships and co-investments.

- PE will continue managing and investing in the specialized areas of: 1) new and next generation managers, 2) underserved urban and rural markets, and 3) clean energy and technology. These specialized investments are designed to capture new market opportunities and new drivers of value creation.

- The CEP will maintain its current commitment level, but strive to increase fee income due to the improved pricing available in the market, and will continue to build on the geographic diversification of the program.

E. Corporate Governance

2009-10 Business Plan

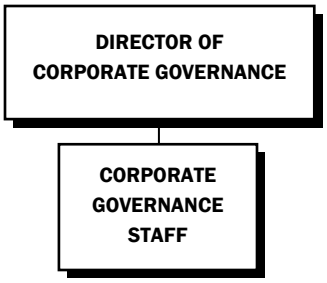
Corporate Governance—Unit Description

- Global equity assets
- $2,150,000,000 portfolio
- 90% domestic equity
- 10% international equity
- 97% externally managed core
- 3% internally managed co-investment
- 6 external managers
- 8 funds
- 8 internal staff

The Corporate Governance Activist Manager Program's objective is to augment the Global Equity performance objective of earning, over time, 16 basis points above the stated plan benchmarks, currently the Russell 3000 ex-Tobacco Index and the MSCI All Country World ex-U.S. ex-Tobacco Index.

The Corporate Governance Program's other major objective centers on promoting best governance practices within the CalSTRS Investment Portfolio. Improved Corporate Governance reduces the risk associated with the Investment Portfolio and allows for more sustainable, long-term investment returns.

Business Units	Personnel
• Portfolio Manager	1.0
• Investment Officers	5.0
• Administration & Management	1.0
• Support Staff	1.0
➤ Total Staff	8.0



Desired Outcome

The Corporate Governance Activist Manager Portfolio goal is to exceed the Russell 3000 ex-Tobacco index by 150 basis points for the U.S. component of the portfolio, and to exceed the MSCI All Country World ex-U.S. ex-Tobacco Index by 150 basis points for the non-U.S. component of the portfolio. Since we are 1.77% of the Total Fund, that equates to 2.65 basis points of the 60 basis points combined goal for the Total Fund. We are therefore responsible for roughly 4.4% of the Total Fund's alpha.

Strategy Map

Risk or standard deviation of return for both the corporate governance portfolio and the general market was much higher over the last one-year period than it has been over the last five years. While the equity markets have declined considerably in the last year, Staff believes that the market has stabilized and investors could see substantial sustained equity value increases in the year ahead. With an investment strategy of improved value through structural improvements, the Corporate Governance Activist Managers should be positioned to capture excess market returns by holding more attractive equity investments in their portfolios. Staff anticipates increasing its exposure to the activist strategy to capture additional alpha that is expected to be generated.

The strategy for improving governance within the portfolio centers on engagement. As regulatory improvements are being seen at the Securities & Exchange Commission (SEC) (elimination of broker voting and the proposed rule on proxy access) limited engagement on regulatory issues is indicated. To maintain progress in climate risk management, engagement at the Congressional level is needed. Advancing executive compensation policy improvement at portfolio companies will require targeted, sustained engagement at the company level. To promote diversity awareness, Staff believes bringing together shareholders, directors and corporate executives to engage with each other is the best strategy.

Cost Reduction

Staff intends to closely monitor the balance of cash and equitized securities in the relevant manager portfolios to ensure that managers are paid for invested capital only. Staff will also be negotiating future contracts with the intent of lowering the per manager fee average. Staff will also be looking to co-investments for future capital outlays as no management fees are incurred. Additionally, Staff will review existing vendor relationships to increase efficiency and reduce costs and to ensure we are getting value for our expenditures in this resource constrained period.

Key Success Factors & Challenges

Keys to Success

Generally, the Corporate Governance Activist Manager Portfolios will have a relatively low correlation with the overall market. These managers rely on deft stock selection and a deep understanding of the companies in which they invest. However, market movement or volatility and a return to a more normal risk profile for the overall market should benefit these managers as well. Due to the concentrated nature of the funds and the distressed initial condition of investments, the Corporate Governance Activist Manager Portfolio generally needs either improving or stable equity markets to be successful. Should the overall market return to the volatility of the most recent year, these concentrated portfolios assets could suffer undue price pressure, which could lead to greater reduction in values relative to the overall market. With a prolonged flat market, portfolio holdings should continue to improve structurally and become more attractive to investors relative to other equity assets, as investors reward the companies for the changes made.

Staff believes that the key to continued success in regulatory reform will be the avoidance of any high-level disruptions at the SEC. As mentioned, the SEC has approved the elimination of broker discretionary voting in uncontested director elections and has proposed a rule change allowing shareholder's access to the proxy. The Commission also appears prepared to establish shareholder-friendly reforms in executive compensation and climate risk disclosure.

Another key to success in executive compensation reform will be diligence by shareholders in pushing for improvements, particularly if the economic situation improves. The need for compensation reform is magnified in difficult financial times and often forgotten when the economy, and corporate profits, are improving.

Another key factor to the success of the Corporate Governance Unit will be corporate governance maintaining its high profile amongst investors, fund managers, and corporations. As long as corporate governance retains its importance, efforts at effecting investor-favorable change will continue and, continue to be successful.

Maintaining appropriate staffing levels is another key to success. The Corporate Governance Unit is now fully staffed and this staffing level will be needed for the unit to achieve success in its multiple responsibilities. Properly motivating and rewarding Staff will therefore be important to the Corporate Governance Unit's success.

Challenges Ahead

The Corporate Governance Unit will continue to be diligent in managing relationships with the existing Corporate Governance Activist Managers. Staff has brought on three new funds since January 1, 2009 and six new funds within the last year. With so many new funds to manage, ensuring that each manager is providing accurate data in a timely fashion to those who require it will be critical. Staff will need to make sure that monthly, quarterly and annual communications are being received and acted upon appropriately.

To help manage the increasing complexities of the Corporate Governance Activist Manager Portfolio, Staff has added existing managers to the BarraOne risk platform and monitors daily portfolio movement through the FactSet platform. Additionally, Staff expects to bring on International Fund Services (IFS) to support the reporting, accounting and risk management aspects of the portfolio.

Another significant challenge will be expanding the pool of available fund managers, particularly managers with funds in Asian markets. Currently, Staff has a limited pool from which to choose future fund managers and it is important that consideration be given to all potential managers with funds that are potential sources of alpha. Unfortunately, the limitations of the current RFP process make qualifying additional managers a resource intensive process. Particularly troublesome is the length of time required to qualify a manager. It is imperative that Staff be able to complete the due diligence review process relatively quickly to take advantage of time-sensitive opportunities.

Negotiating CalSTRS-favorable partnership terms with new managers remains an on-going challenge. Staff has begun contract talks with European activist fund Knight Vinke and anticipates negotiating other contracts throughout the upcoming year. Staff will continue to negotiate terms that keep fees and expenses reasonable while properly align manager expectations and performance.

Other Areas

The Corporate Governance Staff will be expanding its climate risk management efforts into a sustainability risk management campaign in order to focus on more issues that affect the long-term viability of our investments. This increased scope should help to mitigate additional risks inherent to the CalSTRS Portfolio. Staff's principal focus in this area will be engaging the SEC on risk disclosure requirements and engaging portfolio companies on the degree of

attention being paid to sustainable risk management. CalSTRS Staff is chairing the Council of Institutional Investors (CII) Sustainability Committee and will use this opportunity to promote sustainability risk awareness.

Promoting diversity on corporate boards will continue to be a principle focus of the Corporate Governance Staff. Staff will be analyzing the CalSTRS Portfolio and engaging companies where improved operation of the nominating committees and examination of criteria for board selection will most likely add value and transparency. The prospect of establishing proxy access in the domestic market highlights the importance of the nominating committees in portfolio companies and the requirement that they be staffed with independent directors and that they meet and make decisions in a manner which is transparent to shareholders. CalSTRS is co-sponsoring the upcoming 2009 Stanford Rock Center Conference on Board Diversity and Staff will be considering other ways to bring investors together to discuss the importance of corporate board diversity.

Improving portfolio company remuneration practices will be a priority during the upcoming year, as executive compensation reform continues to be a prominent issue amongst shareholders. Staff intends to use CalSTRS recently released Executive Compensation Principles & Guidelines as leverage to frame and support discussions on compensation practices at portfolio companies. While Staff will continue its advocacy of a shareholder advisory vote on executive compensation, our real work will be in the direct engagement of companies to have them properly align their compensation practices with our long-term interest.

With the financial and regulatory changes being seen in Washington D.C., Staff will be engaging Congress and the SEC on issues of importance to investors, such as shareholder access to the proxy. Staff is working to ensure that the form of access adopted strikes an appropriate balance between shareholder and corporate concerns. Staff intends to comment on the recently released SEC proposed rule change on proxy access and will continue to engage that organization, and investors, on this and other matters.

F. Innovation and Risk

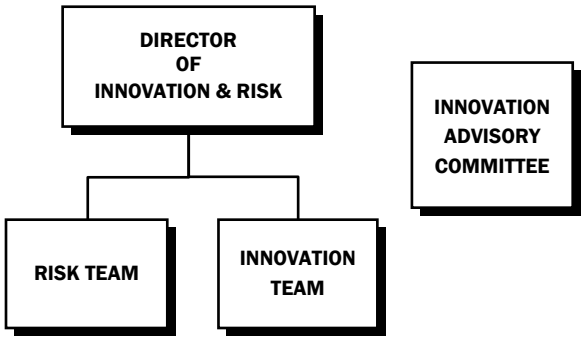
2009-10 Business Plan

Innovation and Risk—Unit Description

The Innovation and Risk (IR) Unit's overall goal is to identify, research and incubate investment opportunities that currently are not utilized by the fund, while focusing on the enterprise financial risks of the Total Plan. Each new strategy that is pursued is expected to improve the risk/return efficiency of the Total Plan by increasing the Total Plan's return, decreasing its risk or achieving both. The IR investment policy was approved in March 2009 and has not yet deployed any capital.

The Innovation Portfolio's allocation is not to exceed the lesser of 1.5% of the Total Plan assets or $2 billion. New strategies must demonstrate success within three years of the initial investment before CalSTRS will commit large dollar amounts to the strategy. While most of these new strategies fall outside CalSTRS' traditional asset classes of Global Equities, Fixed Income, Real Estate and Private Equity, some of these opportunities may cross-over into two or more asset classes. Examples of new opportunities include market neutral funds, commodities, and intellectual property. Cross-asset opportunities include alternative energy, which is already a subset of CalSTRS' private equity portfolio.

Business Sub-units	Personnel
• Innovation	2.0
• Risk	2.0
• Support Staff	1.0
➤ Total Staff	5.0



Two of our personnel are relatively new to CalSTRS. However, they each have extensive education (PhD, MBA, Masters in Finance, and CFA) and private sector experience (5 years in global investment management) that are relevant to the future success of IR's mission.

In addition, IR has formed an Innovation Advisory Committee (IAC) consisting of the CIO and Directors from the other asset classes. The purpose of the IAC is to provide oversight to IR's investment decisions and review IR's risk analytics reports. Upon passing IR's internal review,

IR will present the investment merits of a strategy to the IAC for final approval. IAC members are expected to provide independent judgment, critical examination, and a different perspective to IR's analysis. The IAC will assess the viability of any proposed investment strategy, ensure that all relevant considerations have been addressed, and review the due diligence conducted. New strategies may not be implemented without IAC approval.

Desired Outcome

In keeping with the "ABC's," IR is focused on the following:

Alpha - IR's mission is to improve the risk-return efficiency of CalSTRS' Total Plan by investing in alternative sources of alpha while preserving capital. - Because IR will likely incubate its first strategy during the second half of the fiscal year, IR is unlikely to be a contributor to alpha this year.

Beta - IR is improving CalSTRS' ability to measure betas across asset classes. - These betas are common sources of risk or return, such as sector or currency exposure, that can cause different asset classes to be correlated. By identifying and measuring these betas, Staff will be better equipped to select attractive investment opportunities for the Total Plan. Specifically, we will focus on identifying alpha strategies with uncorrelated betas.

Cost - Fees will and should be higher for alpha strategies compared to beta strategies. - IR will develop tools to decompose return drivers into alpha and beta to price management fees accordingly and ensure that we are not paying alpha-level fees for beta-return strategies.

Strategy Map

Fueled by easy credit and too much capital, asset values inflated to beyond fair value prior to the recent crisis. In this environment, the balance of power between managers and investors was tilted in favor of the managers. Now that nearly every type of risky asset has suffered, investors are able to identify the better managers by how they managed risk during this crisis, stayed disciplined despite the euphoria, and generated skill-driven returns rather than beta-driven returns. The balance of power is shifting back to the investor, presenting opportunities to negotiate better terms, greater transparency, and more closely aligned incentives. Improved terms combined with lower valuations and less crowded opportunities make this an ideal environment for CalSTRS to expand its investment reach.

This coming year we will begin implementing new, innovative strategies and formalizing CalSTRS' investment risk management process. IR's specific objectives for the fiscal year are:

- establish an Innovation framework and criteria for identifying, evaluating and monitoring investment strategies not currently accessed by CalSTRS;
- build the first generation of quantitative tools to evaluate new strategies;
- research potential opportunities using the Innovation framework and make initial investment in Innovation Portfolio;
- complete the implementation of the BarraOne Risk Management System;
- update the Investment Business Continuity Plan based on the relocation; and
- import Conflict of Interest (Form 600 H) information into a new system/ database created by IT

Cost Reduction

Given the new initiatives for our group, we have reached out to our pension and endowment peers to identify best practices for accessing innovative strategies and manage risk. Staff will continue to strengthen these relationships as we move further along in our development. Additionally, Staff has leveraged our in-house investment professional's knowledge to analyze and structure investment opportunities. Future innovation strategies may involve establishing cross-asset teams to leverage this in-house expertise.

However, there will be circumstances where we will need to acquire expertise and tools to invest in new strategies. As a new unit tasked with reviewing many potential investment opportunities, we will need additional resources as we build our portfolio, incorporate more complex securities, and manage the risk associated with them. Resources will also be needed to build or acquire the tools needed to evaluate new strategies within our framework.

Staff will be conscientious in weighing the "buy versus build" option along with keeping our cost structure flexible. As mentioned above, Staff will also thoroughly analyze the appropriateness of fees we are paying for alpha strategies with a focus on aligning managers' interests with CalSTRS.

Key Success Factors and Challenges

Innovation Portfolio

We have developed a framework for evaluating new investment strategies and expect to test and refine this framework by making our initial investment this year. Within this framework,

IR must first determine whether a new strategy improves the Total Plan's risk/return efficiency by increasing its return, reducing its risk, or a combination of both. If the strategy passes this test, the second part of our analysis entails constructing the Innovation Portfolio and determining the optimal weight of the strategy within this portfolio. The final part of our framework entails selecting the best managers within this strategy and negotiating appropriate terms to access the strategy. Risk analysis is interwoven within each of these steps. For each step, we will build the necessary analytical tools as outlined below.

		Qualitative and Quantitative Analysis
Portfolio Construction	Total Plan Asset Allocation	**Does adding the strategy improve the risk/return efficiency of the Total Portfolio?** - Sample quantitative measures: Sharpe ratio, volatility, correlation - Estimate strategy's beta to existing portfolio and to market - Identify exposures to common risk factors - Analyze strategy's performance compared to other assets under different regimes
Portfolio Construction	Innovation Portfolio Asset Allocation	**What is the appropriate weight of each strategy in the Innovation Portfolio?** - Determine allocation strategy (core/opportunistic) - Determine rebalancing strategy - Separate alpha and beta drivers of return and risk - Sample quantitative measures: Sharpe ratio, volatility, correlation - Determine appropriate benchmark
Manager Selection	Manager Selection	**Who are the best managers for each strategy?** - Determine measures of success - Conduct manager due diligence - Analyze performance and risk attribution - Determine appropriate weight

As specified by the Board, commodities, liability driven investments and climate change-related opportunities will be considered during this fiscal year. Inflation-linked bonds and infrastructure will also be considered as part of the Absolute Return asset class. Because these areas do not fall into our traditional asset classes, IR will lead the research on these new opportunities. IR has also begun work to identify strategies that are less correlated, diversify CalSTRS' beta exposures and have lower volatility. Over time, we will build a portfolio that does not rely on any one type of market. Rather, we will hold strategies that could perform well whether the market is volatile, range-bound or trending upward or downward.

Potential strategies may include equity market neutral, fixed income relative value, and macro strategies. Some of these opportunities are also absolute return strategies, meaning

they aim to produce positive returns, do not need to invest in a benchmark to achieve these returns, and strive to preserve capital during market draw downs. If these strategies are identified to be incubated and later approved to become a larger part of the CalSTRS Portfolio, they may graduate to the Absolute Return asset class, one of the traditional asset classes or a new asset class.

Risk Management

The higher alpha opportunities to be pursued in the Innovation Portfolio may be higher risk than CalSTRS' existing investments, but may lower the overall plan's risk because of the uncorrelated alpha. It is important for the IR team to measure and monitor this interaction between new strategies and the existing portfolio. Risk analysis will enable Staff to identify factor exposures in new investment opportunities as well as the Total Plan. As a result, Staff will be able to better discern strategy overlaps and reduce beta redundancy.

There are several definitions of risk that the IR team measures, but the two measures that the team focuses on are volatility and the probability of economic loss. The IR unit has begun producing monthly reports using the BarraOne risk management system, which includes measurements such as geographic, sector and company exposures. Future improvements to these reports include increased frequency of reports, greater granularity, and refined risk measurement for the Real Estate and Private Equity portfolios.

While measuring risk relies on calculations using historical data, IR is also focused on monitoring Total Plan risk. This requires forward-thinking, an understanding of how the portfolio may behave in different environments and deciding whether to manage or mitigate the common risks across asset classes.

Folded into the investment-related responsibilities of the IR unit are our long-standing procedures related to managing CalSTRS' operational risk. This includes coordinating and managing all aspects of compliance, annual audits, and business continuity measures. For example, we provide support to the CalSTRS Compliance staff and maintain a database of the investment business partners' compliance with Form 600H "pay-to-play" conflict of interest reporting. Additionally, we are responsible for the maintenance, updating, training and testing for the Investment Business Continuity Plan (IBCP). In the event of a catastrophe, we have prepared contingencies to maintain data and backup support.

Additional Plan-level Responsibilities

Due to the IR unit's unique ability to touch all asset classes, cross-asset investments and risk management, the IR unit also plays a critical role in providing macroeconomic research and input for monthly tactical asset allocation decisions and analyzing the fund's performance attribution.

Although these are challenging times, unprecedented times present unprecedented opportunities for new investments. We will also need to reassess traditional methods of asset allocation and investing. Our focus is to stay on the leading edge of financial tools, concepts and risk management and combine this with cross-asset information to best position the Total Plan throughout the ups and downs of the market.

G. Operations

2009-10 Business Plan

Operations—Unit Description

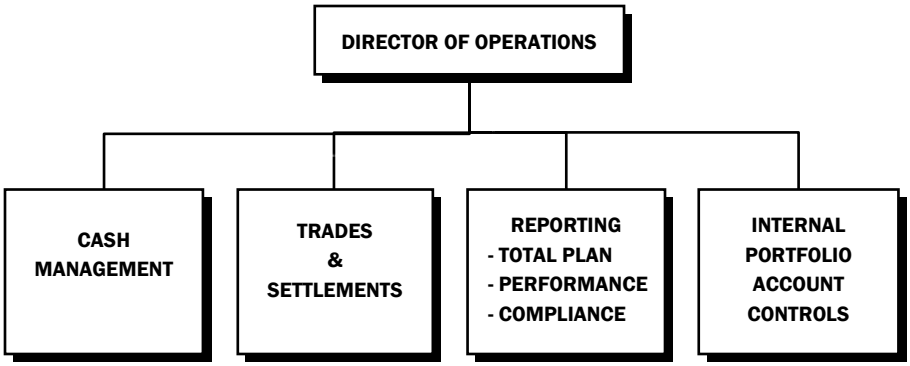
Investment Operations provides front and middle-office support and services for internal and external portfolio management activities. We are the backbone of the investment office. Without our structure and network, the portfolio fails. We manage the cash allocation which is used to fund benefit payments, ensure end of day cash is invested, and that funds are made available to cover purchases in other asset classes or investment programs. In addition, Investment Operations manages the processing of daily cash movements, transactions and settlements, cash forecasting, performance reporting and portfolio controls over cash, accruals and positions.

It is important that someone other than the portfolio manager has responsibility for the day-to-day business management for the Investment Office to enable the portfolio manager to concentrate solely on generating alpha. CalSTRS Investment Operations focus is on all aspects of asset management operations, from new program launches, operational risk reviews, technology reviews, supporting investment managers' requirements - all from an expert institutional operations perspective. We provide special services based on a skilled program knowledge and implementation track record for all asset classes.

Investment Operations coordinates the external audit for the Investment Office. In addition, we work in conjunction with the Accounting Office on the Comprehensive Annual Financial Report (CAFR), investment projects, and governmental accounting pronouncements.

Lastly, Investments must leverage and invest in technology to manage a complex $120 billion Fund with a staff of about 90 professionals. We are the hub to coordinate and facilitate the delivery of technology from our internal information technology staff and strategic business partners to the Investment Office.

Business Units	Personnel
• Cash Balances, Trades & Settlements	7.0
• Portfolio Reporting & Performance	7.0
• Administration & Management	1.0
• Support Staff	1.0
➤ Total Staff	16.0



Desired Outcome

Investment Operations' overall goal is to align our services and functions to investment activities and programs that cut across all asset classes for the success and implementation of the Investment Policy and Management Plan. We seek to minimize operational risks and establish effective controls by using portfolio management tools to perform independent quality verifications of the custodian and front office. Our compliance monitoring function provides for oversight of asset class activities independent of investment decision makers, reinforcing segregation of duties and strengthening the internal control environment.

We strive to provide management with the highest quality investment reporting and value-added services used to make sound investment decisions. Strategic or tactical asset allocation shifts have a wide range of potential impact on operational resources and risks. There are many facets to consider, for instance, transaction volume, complexity and implementation speed. With our current cash allocation set to zero, constant vigilance is required to ensure that sufficient cash balances are available to make contributions to non-cash asset classes and to pay benefits.

With dedicated staff and the assistance of State Street Bank resources, we have been successful in establishing internal controls, policies, and procedures which are used to mitigate operational risks. Operations' staff works closely with internal and external managers/advisors to refine our processes and functions servicing assets on a post trade basis.

Investment Operations' specific objectives for this year are:

1. Support all Investment Office business plans and implement new investment strategies and initiatives originating from each asset class;
2. Replace or upgrade existing Thompson PORTIA system to support Global Equities division initiative for a new internally managed multi-currency portfolio;

3. Implement a new cash forecasting system, in conjunction with our custodian, to retire an outdated forecasting application;

4. Strengthen our internal controls in the area of trade compliance monitoring and reporting. Increase transparency by reporting exceptions in the quarterly reports to the Investment Committee;

5. Implement an automated trade flow system for Real Estate and Corporate Governance Units; and to

6. Work in conjunction with Investment Accounting and other Business Units on the following:

   - Investment Accounting Project - (focuses on financial reporting controls of investment activities) implementation of key aspects of the transformation plan;

   - Governmental accounting pronouncements (e.g. GASB53) and accounting treatment of the new headquarters building; and

   - Develop and implement a full funding plan for the Medicare Premium Payment Program (MPPP).

Key Success Factors & Challenges

Investment Operations serves as the middle office, providing integrated technology and dedicated staff to manage the day-to-day operations. Our staff has the specialized knowledge, skill and expertise needed to support the Investment Policy and Management Plan, and basic investment programs and initiatives. We leverage technology to a large degree, which allows us to keep overall personnel costs down. Additionally, we leverage and manage strategic partnerships with various vendors and service providers such as State Street Bank, Blackrock, Thompson, and Omgeo.

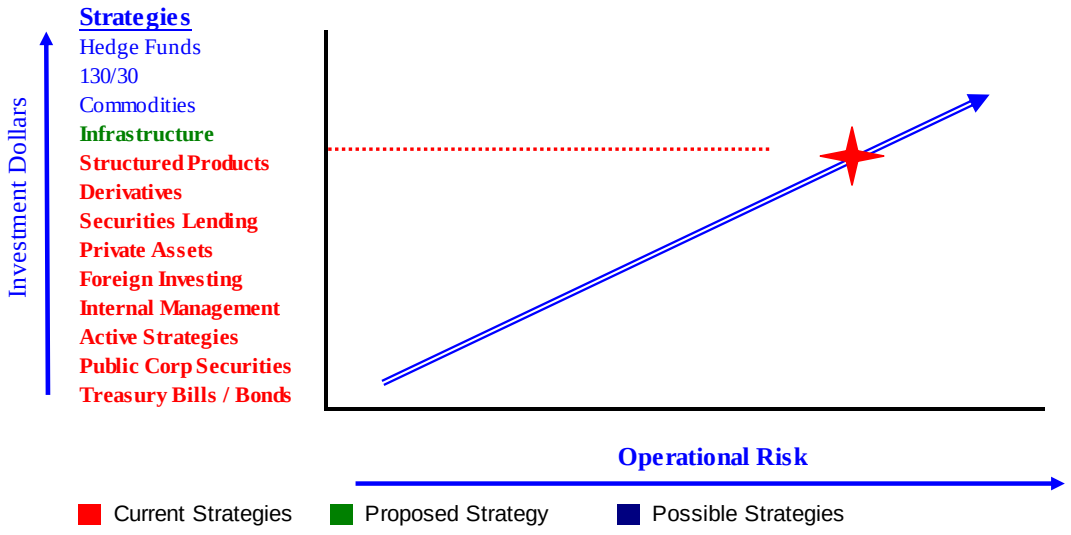
Key to our success is the following

1. Due to the complex nature of Investment programs and investments, it is extremely important to have a qualified and experienced professional staff. Therefore, attracting, developing, and retaining quality investment professionals are vital to the success of our operation. Other financial investment firms in the Sacramento area have proven to be a huge source of qualified talent;

2. Our ability to maintain effective communication across CalSTRS' enterprise, along with external business relationships, is essential. As our business evolves, we must also adapt to change and be able to create solutions that best meet the needs of all affected parties while maintaining an effective internal control structure;

3. Also key to our success is our ability to focus on supporting core business activities of the Investment office while prioritizing and implementing new initiatives and investment projects.

CalSTRS Investment Plan and Programs continue to grow more complex each year increasing the operational complexity and risk. As this trend continues, new complex investments and programs put a strain on staff with increased workloads and operational risks that must be controlled. Operational risk refers to potential causes of loss arising from deficiencies in internal controls, human errors, physical systems failures, and other business execution risks as well as external events. It is critical that Operations is properly staffed with knowledgeable professionals that have the financial competencies to deal with the complexities and higher volumes that come with implementing these new initiatives and projects. New investment strategies and initiatives from each asset class require proper controls, documented processes, risk assessments, and effective implementation.



Potential deterrents to our success

1. The government structure we operate under does not allow for the flexibility or efficiency in hiring applicants directly from private industry. Frequently, staff hired in Investment Operations are soon attracted to asset class positions which have higher classifications and salary structures;
2. The uncertainty of the State of California's financial condition and the furlough days places a burden on our ability take on new initiatives and meet daily critical functions with reduced staff. The current three furlough days puts us at near 85% capacity through this fiscal year;
3. We have limited resources to effectively implement the Investment Accounting Project plan within the estimated timeframe. Hiring a consultant to assist Investment Operations will be considered.

Other Areas

The Medicare Premium Payment Program funding analysis may result in an option of investing along side certain Teachers Retirement Fund portfolios. Depending on the implementation strategy, the creation of unitized portfolios will require specialized staff that have the core competencies to process and report on these complex portfolios.

As our use of investment products like absolute return, structured products, and derivatives increase, we will look to develop staff competencies that are essential to support our investment programs and the challenges we all face in an increasingly knowledge-based economy. The use of these investment products and the blurring of asset classes will make performance reporting more challenging. It will be necessary to develop staff that focus on performance analysis, measurement and reporting across the portfolio.

State Teachers Retirement Fund

Teachers' Retirement Fund Schedule of Advisor & Consultants in effect for the year ended June 30, 2010 and under retainer for the future, 2010-11 Fiscal Year.

2010-2011

Advisors and Consultants:

ALTIUS ASSOCIATES LIMITED
ALTURA CAPITAL GROUP
BARD CONSULTING, LLC
CAMBRIDGE ASSOCIATES, LLC
CAPITAL HOTEL MANAGEMENT
COURTLAND PARTNERS, LTD
CREDIT SUISSE AG
DAVID L. BONUCCELLI & ASSOCIATES, INC.
DLJ MB ADVISORS ON BEHALF OF CREDIT SUISSE FUND INVESTMENT GROUP
HOULIHAN LOKEY HOWARD & ZUKIN FINANCIAL ADIVSORS, INC.
INDEPENDENT FIDUCIARY SERVICES, INC.
INVESTORS DIVERSIFIED REALTY, LLC
KPMG, LLP
MELLON CONSULTANTS, LLC
PACIFIC CORPORATE GROUP, LLC
PENSION CONSULTING ALLAINCE, INC.
REAL ESTATE FIDUCIARY SERVICES
REAL ESTATE RESEARCH CORPORATION
THE TOWNSEND GROUP
VALUATION RESEARCH CORPORATION

Attachment 5

CALSTRS

CalSTRS Investments Business Plans For 2010-11 FY

INV71

CalSTRS Investments Value Statements

Respect

We strive to not only treat others as we would like to be treated but to go the extra mile and treat others as they would like to be treated

Personal Development

We support an individual's career and persona goals.

Balance

We encourage employees to balance a strong work ethic with interests outside of the office.

Worth

We strive to recognize everyone's efforts and contributions to the organization.

Challenge

We are honored to accept the challenges place upon us and strive to create an innovative work environment.

Purpose

We work toward a common goal, thereby making a difference for others and ourselves.

Honesty

We are truthful to ourselves ,to peers, to supervisors, the Board and to the organization; our word in our bond.

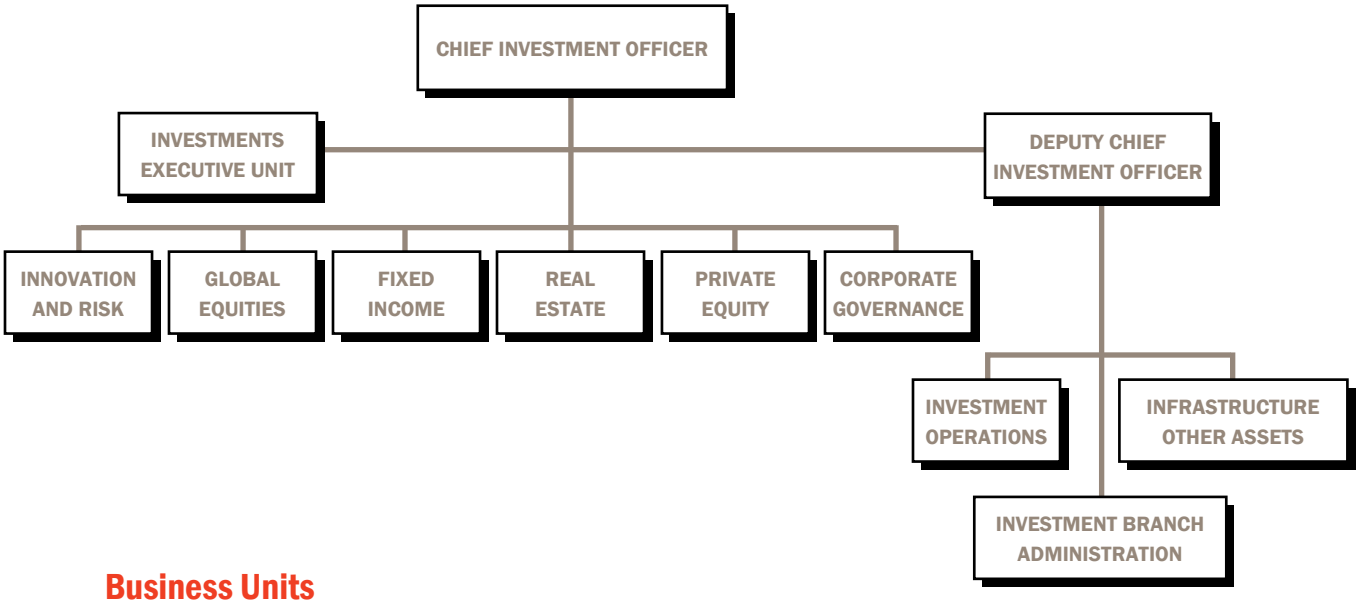
Investments Branch

Business Plan for 2010–11FY

Investment Branch Mission & Organization Chart

The Investment Branch is tasked with two missions, earn an **absolute return equal to the assumption adopted by the Board, currently eight percent,** as required to meet the Actuaries assumptions; and a **relative return** to exceed our respective benchmarks to add an **additional 60 basis** of excess return above the benchmark each year. In real dollar terms, we need to earn over $10 billion in profits from the financial markets, and add an extra $1 billion of return above the market.

Within the business plans, each unit will display their share of our objectives and describe what they need to deliver the added value. In this Branch wide business plan and financial plan, **the theme for FY 10-11 is "Continuous Improvement."**



Business Units

The Chief Investment Officer unit contains three groups:

- CIO – 2 PYs for Overall Administration of the Investment Branch and Portfolio
- Investment Executive Unit – 4 PYs for The Diversity in Investment Management and the Member Home Loan Programs
- Deputy CIO – 18 PYs for Investment Operations, Absolute Return Asset Class – Infrastructure, and Investment Branch Management

Investments Branch

Performance Objective / Risk Management

The desired outcome of the Investment Branch is very straight forward and clear.

1. Earn at least an absolute return equal to the Board assumed rate, currently 8%, per year, over 20 to 30 years.
2. Outperform the Policy Benchmark portfolio by 60 basis points annually without excess risk.
3. Prudently diversify the portfolio and strive for lower costs.

Those three goals take precedence over all others. While in the 1980's and 90's, it looked easy to accomplish most of those three; however, in the past decade of "Naught", the 2000's, it proved actually very difficult and challenging. Seeking to accomplish too many other objectives has shown to defuse the focus on the core mission. Therefore, the lesson learned is that these three goals have to be paramount above all else, and to the exclusion of all else. Otherwise, the entire pension plan and defined benefit system is threatened.

Risk measurement and management will be a key area of continuous improvement in FY 10-11. Working with our industry leading risk measurement system, Barra One, we are working to integrate all of the private asset classes into this model. In the coming year, we will work with the UC Regents and China Investment Company staff to improve the system and enhance the reporting. In addition, we plan to implement scenario risk assessments using the "inevitable surprises" as the various crises.

The other desired outcomes set forth by the Investment Committee focus on two key areas, climate change and diversity. Both areas are multi-year efforts and the desired outcome is not as much a set objective as it is additional core values. Therefore, we do not have a discreet outcome for each year, but rather milestones for continuous improvements.

Under the Climate Change effort this year, we will continue to expand our investment program in real estate, private equity and global equity, as well as our risk mitigate in real estate and fixed income. Under diversity, the major effort of the year is to develop and implement a five– year business plan to expand the diversity of our investment managers. It is very important to note that at CalSTRS, these efforts are not a siloed effort into a single office or unit, but rather integrated into the operations of every asset class. This is an important distancing characteristic compared to other larger institutional investors.

FY 10/11 Continuous Improvement

Our business plan for the year is built on our theme: **"Continuous Improvement."** While we are always striving to improve, this theme links with last year's effort to get back to the basics of Alpha, Beta and Costs. Using that as our platform, we want to expand our efforts on the portfolio and improve our effectiveness and efficiency. Working with the Investment Committee we want to explore the potential of **Risk Oriented Strategic Allocation Management and wider asset class ranges.** Pension Consulting Alliance will lead us through a discussion of how we might attempt to be more nimble in the financial markets and more actively mange risk at the extreme inflection points of the markets.

Later in FY 10-11 we would like to **explore different levels of internal versus external asset management.** With our new headquarters and equipment, we believe there are areas within the portfolio where internal asset management may be more effective and efficient.
These include not just U.S passive equities and fixed income, but other facets of the portfolio as well.

Building on the success of the Real Estate workshop last May, we will hold another **interactive workshop this year on Private Equity.** In addition, we will present a deep dive into the private equity portfolio and our key general partner relationships. Combined, this should provide the Investment Committee with a much more comprehensive understanding of the long-term private equity market place.

A major area of improvement will be the implementation of the **Deputy Chief Investment Officer** role. As demonstrated in the organization chart. This new position, will oversee the new Absolute Return Asset Class, Investment operations and a majority of the day to day Investment Branch management. As requested by the Board at the fall off-site, this addition should allow the CIO to focus more time and attention of the investment portfolio and asset allocation.

With the **Climate Change** taskforce we are looking to seize any opportunities created by the realization that environmental factors could change the competitive landscape for many investments held in our overall portfolio. How an organization manages the risks and opportunities from climate change plays a key role in the determination of management quality, business quality and valuations. Consistent with this belief, a task force was formed in 2007 comprised of representatives from each asset class – Innovation & Risk, Global Equities, Corporate Governance, Fixed Income, Private Equity and Real Estate.

Investments Branch

The team continues to demonstrate a collaborative effort to consider global sustainability issues and to identify, analyze and propose potential investment and risk control strategies intended to enhance the risk-adjusted returns of the overall CalSTRS portfolio. The sustainability issues being considered encompass not only global warming but might also include issues such as water supply, pollution abatement, hazardous wastes disposal, and recycling. For FY10/11 the major asset classes will continue their commitment to providing leadership and improving the "double bottom-line." Finally, the Innovation & Risk unit will be incorporating environmental factors into a quantitative screen used to identify potential new strategies for incubation as well as continuing their effort to evaluate the impact of climate change risk to the overall CalSTRS portfolio.

Key Success Factors & Challenges

- **Market Risk -** We are dealing with the most challenging investment climate in the past three decades. The key is the uncertainty of economic growth in the U.S. and across the globe.
- **Government Business Model -** Each year, in the overall Branch business plan, we raise this key success factor risk of operating a money management firm inside a governmental business structure. With the budget problems of the State of California as a backdrop, this has never been more prominent. Ennis Knupp has demonstrated that the government model costs 40 basis points per year[1] versus other more traditional money management business models. This performance drag may be even greater in the current environment.
- **Investment Branch Culture and Personnel -** One of our key factors that has led to success in past years has been our Investment Branch culture and staff. This diverse team has shown it can make extra return in normal economic conditions and can compete with the best investment management firms around the globe. Our new Headquarters, equipment, and trading platforms allow us to manage more assets internally at a lower cost.

Financial Plan

A key component of the business plan is the financial plan. To manage our costs and to gauge our resource needs, the CIO has used the enclosed 10-Year Financial Plan. Industry

[1.] Ennis Knupp Research, *Can Public Funds Compete?*, June 2004

research makes it very clear that investment firm costs are driven by a combination two factors: assets under management (AUM) and the complexity of the portfolio.

The plan shows the anticipated and hoped for growth of AUM. For now, we assume the current level of complexity of the Portfolio is constant; however, that may not be the case when we study our peers larger than CalSTRS. If more asset classes are added and the current asset classes grow more diverse, the cost structure will rise. To frame the plan and ensure it is reasonable, we use larger plans as a future road map; CalPERS, the Dutch Fund APG, the Korean Pension Service (KPS), the Norwegian Government Pension Fund, and the two halves of TIAA-CREF. These plans serve as examples ranging from $175 billion to $350 billion in AUM. Our plan forecasts a smaller staff and cost compared to all the others, with the sole exception of the Norwegian fund, which is run by the government constrained Federal Reserve Bank.

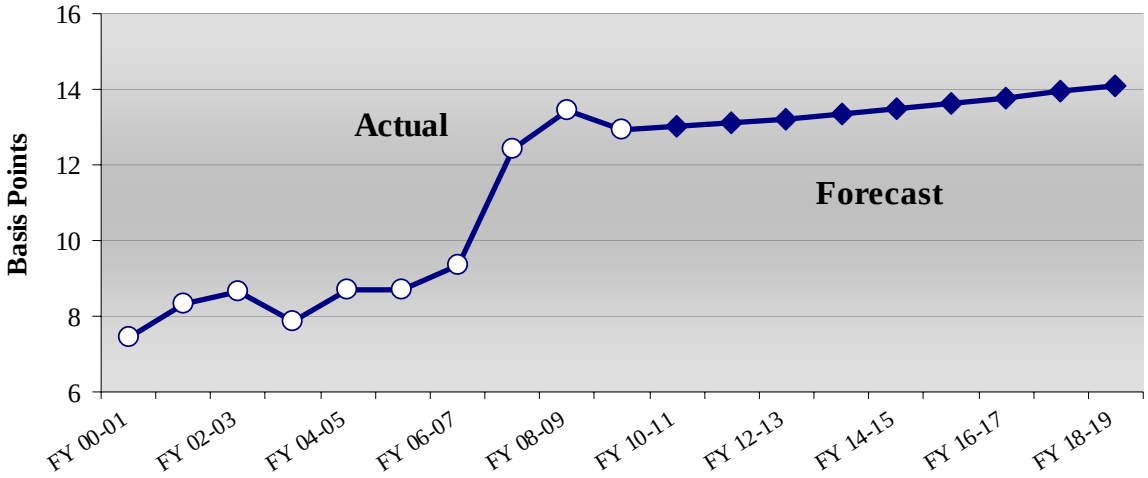
As testament to the validity to the plan, during the tumultuous decade of the 2000 the actual outcomes, both high and low, have fallen within the expected range. Even so one must use caution in the assumptions about the future of the portfolio. The range displayed on the graphs only shows one standard deviation or two thirds of the possible outcomes. The actual future result will vary and possibly exceed the upper or lower band of the range.

Our investment costs have increased over the past three years as we have expanded the use of external investment mangers and invested in more complex areas. According to the CEM, back in 2004, when CalPERS was our size today, their investment operation ran at a cost of 24.7 basis points[2]. This compares to our current CEM cost factor of 22 basis points. In the 10-Year Financial Plan, we estimate the budget cost to be around 17 basis points, the difference compared to the CEM figure has to do with the expensing rather than amortization of private equity and real estate partnership fees.

The lion's share of the cost to manage the total investment portfolio is driven by the external investment managers, Line 7 in the Financial Plan. In total, they comprise 82 percent of the annual cost. The decision back in 2005 to expand the use of active management resulted as expected in a bump in our cost structure. In the past year, we have actively pushed to lower our costs. As a result, we expect to achieve a 15 percent reduction in existing investment manager agreements.

[2.] CalPERS Web Site, 2005 Press release of their Dec. 31. 2004 CEM report

Investment Management Costs (excluding partnership fees)



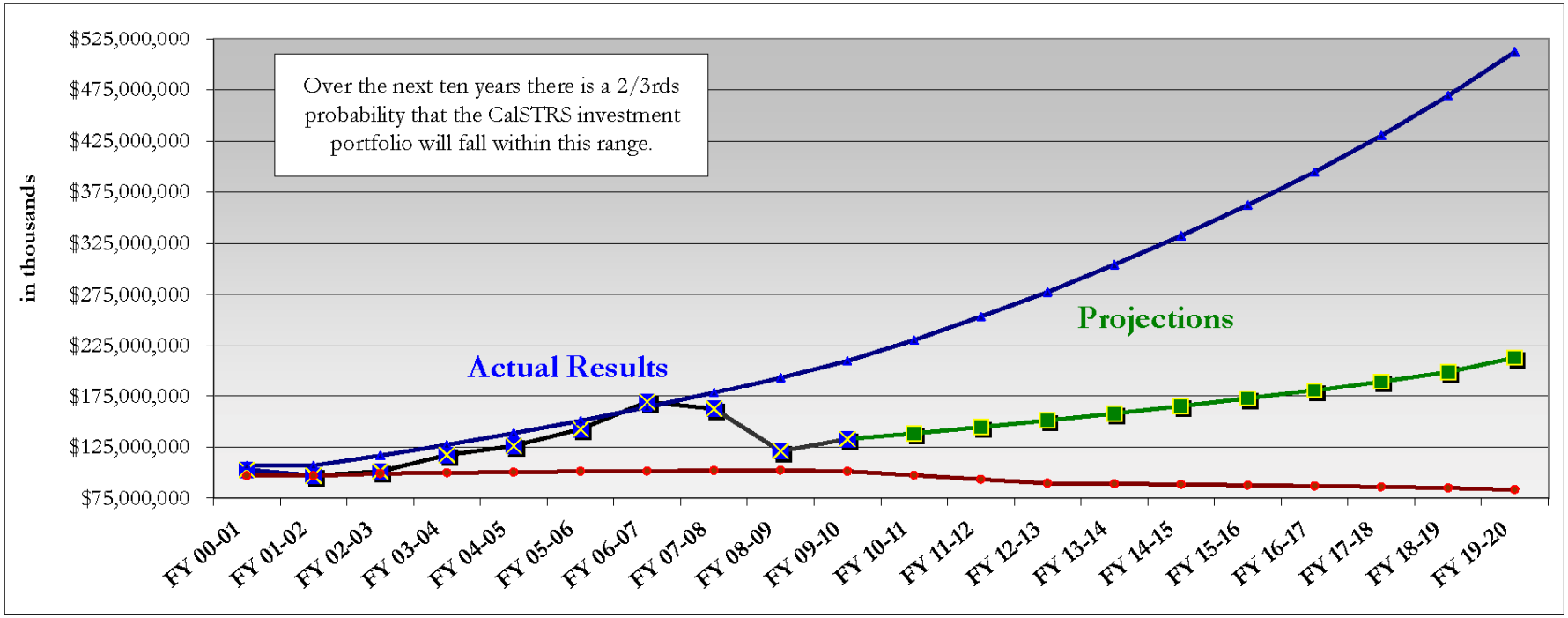
Portfolio Growth Forecast

	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20
Retirement Funds (Net)	$ 126,275,012	$ 131,904,638	$ 137,956,487	$ 144,462,225	$ 151,455,895	$ 158,974,091	$ 167,056,153	$ 175,744,371	$ 185,084,205	$ 195,124,529	$ 209,758,868
Supplemental Def. B.	$ 6,616,454	$ 6,624,125	$ 6,631,642	$ 6,639,010	$ 6,506,229	$ 6,376,105	$ 5,848,583	$ 5,331,611	$ 4,824,979	$ 4,328,479	$ 3,841,910
PENSION 2*	$ 238,921	$ 276,813	$ 318,494	$ 364,344	$ 414,778	$ 470,256	$ 531,282	$ 598,410	$ 672,251	$ 753,476	$ 842,823
Total {less 403(b)}	**$ 132,891,466**	**$ 138,528,763**	**$ 144,588,129**	**$ 151,101,235**	**$ 157,962,125**	**$ 165,350,196**	**$ 172,904,736**	**$ 181,075,982**	**$ 189,909,184**	**$ 199,453,008**	**$ 213,600,778**

**PENSION 2 assets: 403(b), 457, Roth IRA & IRA assets managed outside the Investment Branch and not included in growth estimate. The growth forecast is not reliable.*

Low Return Environment***	$ 101,290,866	$ 97,449,866	$ 93,549,866	$ 89,549,866	$ 89,021,411	$ 88,471,288	$ 87,698,611	$ 86,794,254	$ 86,220,761	$ 85,118,020	$ 83,459,039
High Return Environment*	$ 210,177,235	$ 230,716,794	$ 253,638,943	$ 277,524,671	$ 304,442,286	$ 332,536,515	$ 362,590,166	$ 394,849,183	$ 430,334,101	$ 469,367,511	$ 512,304,262

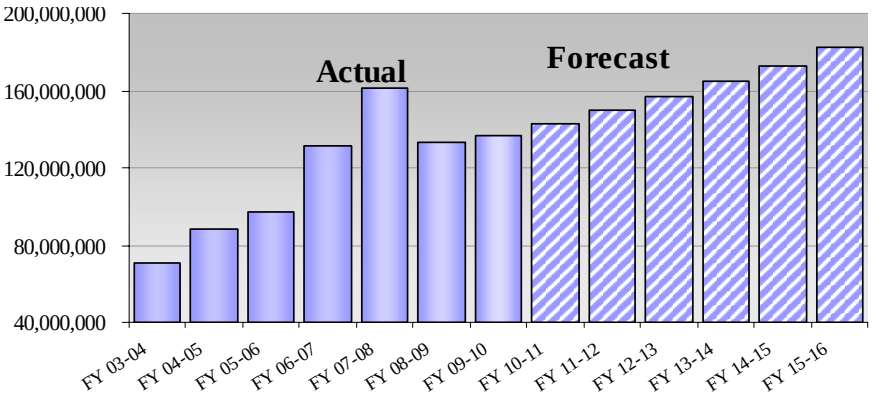
***Return assumptions based on CalSTRS capital market Assumption for 10 year growth. High and low estimate based on 10 year standard deviation for CalSTRS current asset mix.*



This forecast is based upon the current CalSTRS capital market assumptions over the next ten years. Actual result will vary widely. Since this chart is based upon a ten year average, individual years return can and will vary significantly. The purpose of the chart is to help explain the potential growth in the investment portfolio. Asset allocation shifts and changes in the assumption will move the chart. As described above this only includes one standard deviation, or two thirds of the potential outcomes. This information is for estimation of the CalSTRS business plan and should not be used for any other forecast without the consultation of the CalSTRS Investment Branch.

"Any requests for augmentations to the support budget will be presented formally to the board through the formal CalSTRS budget development process and in conjunction with and in consideration of all other CalSTRS budget requests." CalSTRS Budget Office

External Investment Manager Costs (excluding partnership fees)



The increase in investment manager fees from FY 06-07 to FY 07-08, Line 7 in the budget plan, reflects the decision in '06 to hire more active managers to help generate a higher rate of return net of fees. A majority of the increase ($40 million) is from the retention of active emerging market managers. Another part ($9 million) is due to the increase of external managers in fixed income. The total plan costs rose from an average of around 9 basis points to 13 basis points. From the current level of $140 million, fees and costs are estimated to grow slowly unless additional external managers are retrained.

CalSTRS Investment Branch 10-Year Comprehensive Financial Plan

Investment Branch

	Fiscal Year	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 18-20
	Total Assets (in billions)	$ 137.9	$ 143.9	$ 150.4	$ 157.3	$ 164.6	$ 172.5	$ 180.6	$ 189.4	$ 198.8	$ 209.0	$ 223.9
	Investment Branch Support Budget											
1	**Total Staff - PY's** (Personnel years)	112 *(106)*	112	118	124	130	137	144	152	160	169	180
	Staff additions (Total+CG)	9 (+3)	0 *(+6)*	6	6	6	7	7	8	8	9	11
	Billion per PY	$ 1.30	$ 1.28	$ 1.27	$ 1.27	$ 1.27	$ 1.26	$ 1.25	$ 1.25	$ 1.24	$ 1.24	$ 1.24
2	Salaries (w/ Benefits & Inct)	$ 15,458,345	$ 16,642,361	$ 17,547,018	$ 19,757,064	$ 22,131,800	$ 24,802,295	$ 26,714,132	$ 29,922,846	$ 33,249,093	$ 37,022,570	$ 40,939,172
3	General Expense & IT exp./equipment	452,470	$ 500,294	553,286	612,017	677,125	749,317	829,385	918,208	1,016,771	1,126,167	1,247,619
4	Travel (starting 2006)	781,480	$ 862,155	951,176	1,049,408	1,157,805	1,277,423	1,409,424	1,555,094	1,715,850	1,893,260	2,089,051
5	Publications, HR, Intern prog. Misc ('06)	389,440	$ 413,709	439,991	468,493	499,443	533,097	569,738	609,682	653,283	700,933	753,072
6	**TOTAL SUPPORT BUDGET**	$ 17,081,735	$ 18,418,519	$ 19,491,471	$ 21,886,982	$ 24,466,174	$ 27,362,131	$ 29,522,678	$ 33,005,830	$ 36,634,996	$ 40,742,929	$ 45,028,914
	Continuous Appropriation											
7	Investment Managers	136,733,340	142,987,634	149,711,002	156,938,623	164,708,316	173,060,738	182,039,592	191,691,862	202,068,052	213,222,458	229,214,143
8	Custodian & Legal Fees	7,542,175	7,919,284	8,315,248	8,731,010	9,167,561	9,625,939	10,107,236	10,612,598	11,143,228	11,700,389	12,285,408
9	Consultants Fees	9,662,925	10,146,071	10,653,375	11,186,044	11,745,346	12,332,613	12,949,244	13,596,706	14,276,541	14,990,368	15,739,887
10	Corporate Governance Staff & OE&E	2,641,934	2,968,252	3,461,456	3,751,431	3,893,593	4,321,063	4,629,419	4,967,513	5,498,683	5,761,806	6,145,904
11	Research & Market Data (from Dir B.)	2,604,790	2,761,077	2,926,742	3,102,347	3,288,487	3,485,797	3,694,944	3,916,641	4,151,640	4,400,738	4,664,782
12	Risk systems (Barra, BBg, Brk, Pt)	1,589,110	1,684,457	1,785,524	1,892,655	2,006,215	2,126,588	2,254,183	2,389,434	2,532,800	2,684,768	2,845,854
14	Misc.	575,870	598,905	622,861	647,775	673,686	700,634	728,659	757,806	788,118	819,643	852,428
15	**TOTAL CONTINUOUS**	$ 161,350,144	$ 169,065,680	$ 177,476,208	$ 186,249,885	$ 195,483,205	$ 205,653,371	$ 216,403,277	$ 227,932,559	$ 240,459,061	$ 253,580,169	$ 271,748,406
19	**TOTAL EXPENSES**	$ 178,431,878	$ 187,484,198	$ 196,967,679	$ 208,136,867	$ 219,949,378	$ 233,015,502	$ 245,925,955	$ 260,938,389	$ 277,094,058	$ 294,323,099	$ 316,777,320
20	**% of ASSETS (BPs)**	12.94	13.03	13.10	13.23	13.36	13.51	13.62	13.78	13.94	14.08	14.15

Conclusion

We face of the most challenging time for the California Teachers Retirement Plan and for the global financial market. We must continually improve our methods and success rate. Beating our benchmarks, as hard as it is, is simply not enough; we must also ensure we achieve an absolute return in excess of the actuaries assumed rate in order to reduce our unfunded liability. The business plan and asset business plans are designed to be tightly focused on helping us continually improve and achieve our objectives. Working hand-in-hand with the Investment Committee, consultants, and external investment advisors, we are confident we can achieve the required results and meet the high expectations the teachers of California and our constituent groups have for our investment operation.

A. Global Equities

Business Plan for 2010–11FY

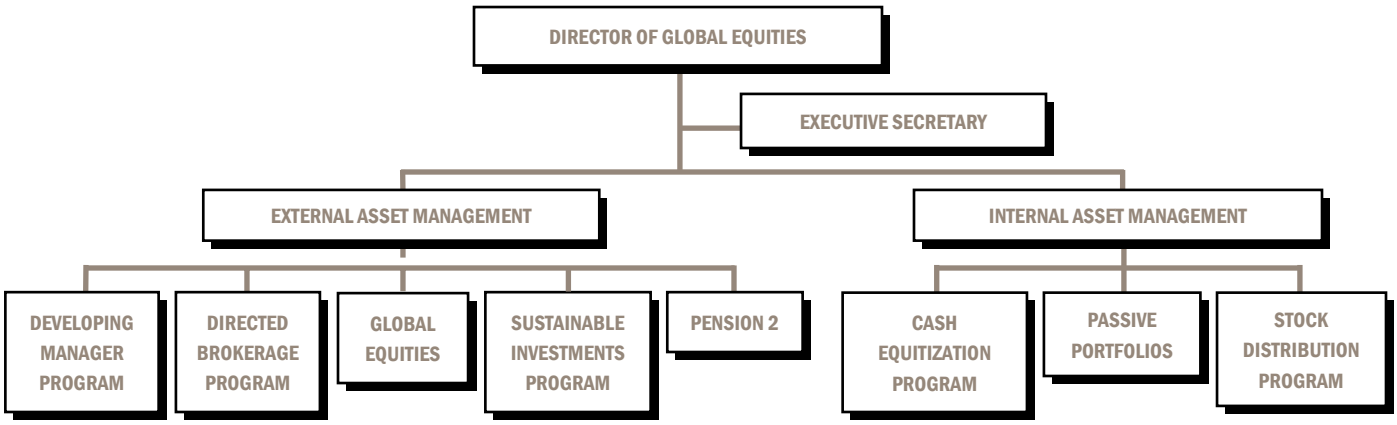
Global Equities—Unit Description

The Global Equities Unit consists of two core programs—External and Internal Asset Management. Ancillary programs include oversight and management of the Developing Manager Program, the Sustainable Investments Program, the Cash Equitization Program, the Stock Distribution Program, the Directed Brokerage Program, and evaluation of investment options for inclusion in Pension2 which consists of 403(b), 457, and Roth 403 (b) plans for CalSTRS' members. The primary objective of this asset class is to generate alpha to meet CalSTRS' obligation to pay benefits to its membership.

The Global Equity Portfolio is 28 percent internally managed and 72 percent externally managed. The Unit is currently staffed with 10 investment professionals and 1 support staff.

Business Sub-units	Personnel
➤ External Management	6.5
➤ Internal Management	3.5
➤ Support Staff	1.0
➤ Total Staff	11.0

An organization chart depicting the structure of the Global Equities Portfolio follows:

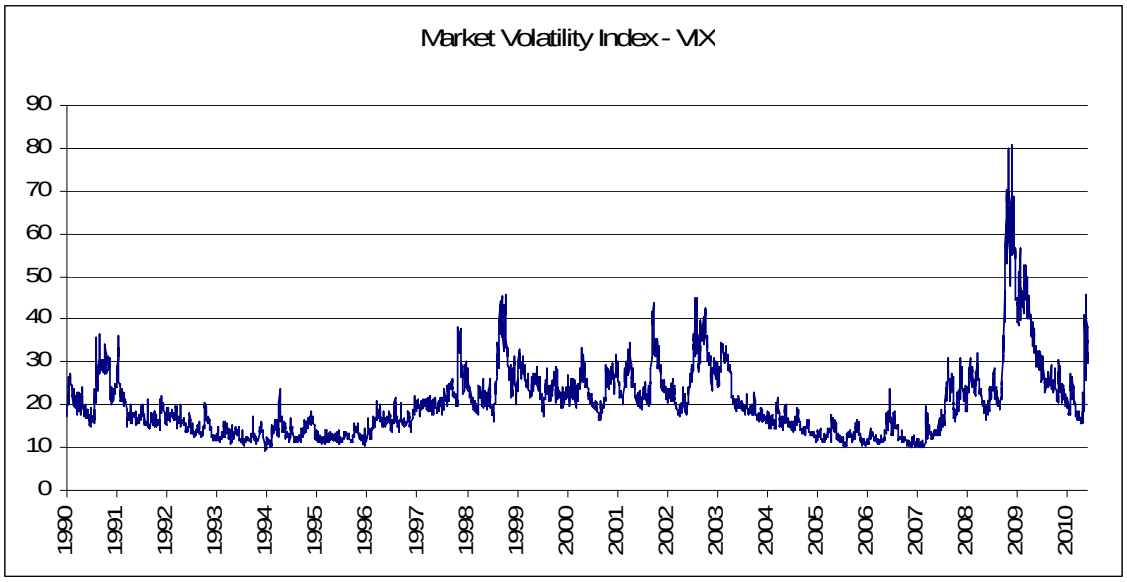


Global Equities

Performance Objective / Risk Management

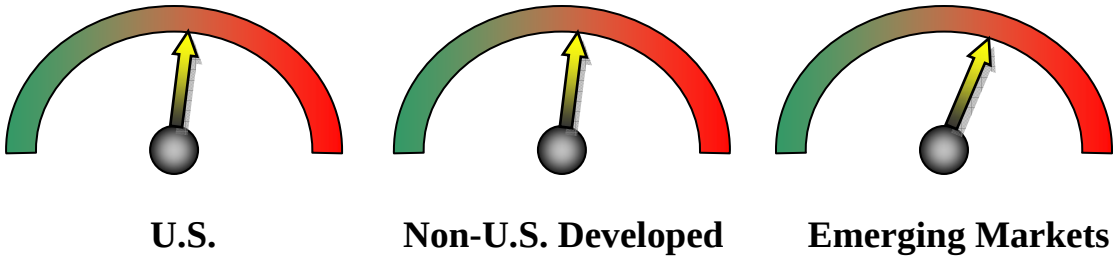
The Global Equities asset class performance objective is to beat the Russell 3000 ex-tobacco benchmark by 32 basis points for the U.S. Portfolio, and to beat the MSCI All Country World ex-U.S. ex-tobacco Index by 53 basis points for the Non-U.S. Portfolio. Based on our share of the assets, that represents 21 bps (35%) of the total Fund's objective to generate 60 bps over the total plan benchmark.

Attaining our performance objective requires understanding the significant risks inherent in the current global equity markets. One of the most widely used measures of stock market volatility is the Market Volatility Index (VIX). Also known as the fear index, the VIX provides a real-time measure of investor confidence.



Historically, any reading above 30 indicates concern or fear in investor sentiment, while a reading below 20 signifies that investors are less concerned with future volatility. At a value close to 40, the current level of the VIX is similar to levels experienced during the Russian financial crisis (1998), the dot-com bubble and immediately after the 9/11 terrorist attack. Over the past 20 years, the only period that experienced a higher VIX reading was the 2008 global financial crisis, which peaked at an extreme level of 80.

Current Market Valuations



Historical valuation metrics are less effective in volatile environments because one can not simply extrapolate trends. A lot of uncertainty remains in global markets which is evident in both the increased volatility and unprecedented policy responses. Even with the dramatic increase in global equity markets from the lows of March 2009, U.S. and non-U.S. developed markets are still close to fair-value based on current earnings assumptions. While emerging markets equities are attractive from a long-term perspective, the short-term valuation is slightly expensive given the massive run-up since the beginning of 2009.

FY 10/11 Continuous Improvement

Consistent with the objective of continuous improvement, staff will continue to evaluate current and potential opportunities to enhance the global equity portfolio. One component of this effort is to carefully evaluate our current and potential investment managers. The goal of this effort is to ensure that we are partnering with the highest conviction investment managers. In the past, adding new managers to the portfolio was challenging due to the time-intensive RFP process. To mitigate this issue, staff is implementing a streamlined alternative solicitation process which should provide flexibility in hiring new investment managers.

Staff will also explore new sources for generating alpha. Staff will evaluate a variety of structured products such as asset trusts, structured notes, warrants, portable alpha, swaps, etc., that generate an index return plus a guaranteed amount of alpha above the benchmark. These types of investments are very risk-controlled, easy to move into and out of as needs change, and provide a source of guaranteed alpha.

Staff will continue to evaluate new mandates for active or passive management. In recent years, index changes have created sub-asset opportunities such as international small cap,

fundamental indexing, and frontier markets which staff continue to monitor for possible inclusion in the portfolio. Adding or continuing existing programs requires systems and services capable of supporting these mandates. Staff is evaluating and reviewing current and potential services to determine whether they are supportive of our business needs and truly add value to our investment processes.

Staff will evaluate and consider increasing the level of internal management. Staff has been successfully managing a portion of the Russell 1000 portfolio for over 10 years, with the remainder of the passive assets being managed by external managers. On April 1, 2010, staff began managing a $500 million Russell 2000 passive portfolio. After establishing a track record of successfully managing these assets, staff will consider bringing in the remainder of the passive assets for internal management in the second half of FY 2010-11.

Alignment of interests with all of our partners remains a high priority. One component of better alignment is negotiating performance based fee schedules that penalize underperformance while providing reasonable incentives for outperformance. Staff has negotiated more attractive fee structures with several external managers and will continue this process over the coming fiscal year.

Key Success Factors & Challenges

- Recruitment and retention of experienced and talented staff
- Continued discipline concerning asset allocation and rebalancing
- Tactically take advantage of current opportunities
- Ability to partner with the highest conviction external managers
- Changing legal and regulatory environment for financial services

Conclusion

With market volatility remaining elevated, the coming fiscal year will be difficult to navigate and will pose numerous challenges to investors. Staff will continue to diligently manage the current roster of managers, and may make changes or enhancements to the external manager portfolios as necessary. Additionally, staff will continually explore new sources for generating alpha, and will evaluate a variety of new products and mandates to enhance portfolio performance.

B. Fixed Income

Business Plan for 2010–11FY

Fixed Income—Unit Description—$28.0 billion

The primary, or core, function of the Fixed Income Unit is to manage the System's allocation to fixed income assets in such a way as to provide diversification to the Total Investment Portfolio, while maximizing the risk-adjusted return. In addition to the investment management function, other "non-core" investment programs (i.e., Currency Management and Securities Lending) that have been designed to add incremental income to the Fund are also managed within the Fixed Income Unit.

The investment programs managed within the Fixed Income Unit are structured in such a way as to take advantage of the benefits/efficiencies of both internal and external management as follows.

Business Units	Internally Managed	Externally Managed
➤ Fixed Income Asset Management	78.5%	21.5%
➤ Currency Management Program[1]	92%	8%
➤ Securities Lending Program[2]	44%	56%

1. External Currency Managers implementation began FY 2009/10; anticipate 80%/20% mix

2. Reflects Cash Collateral Asset Management breakdown

Currently, twenty staff members are responsible for the management of the portfolios and programs within the Fixed Income Unit as follows:

Business Units	Internal Staff	External Managers
➤ Fixed Income Asset Management[3]	14	9

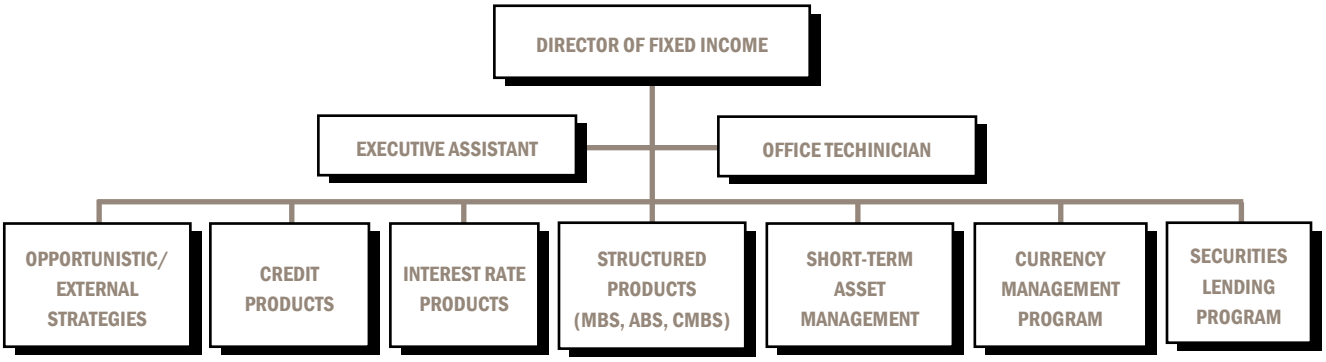
Fixed Income

Business Units con't.	Internal Staff	External Managers
➤ Currency Management Program[4]	2	2
➤ Securities Lending Program	2	2
➤ Support Staff	2	n/a
➤ Total	20	13

[3] Internal staffing includes long and short-term asset management

[4] Anticipate up to four external currency managers implemented FY2010/11

An organization chart depicting the structure of the Global Equities Portfolio follows:



Performance Objective(s) / Risk Management

Fixed Income - The strategic performance objective for CalSTRS' Fixed Income Portfolio (Portfolio) is outperformance vs. the Policy Benchmark [(95%) Barclays Capital U.S. Aggregate + (5%) Barclays Capital U.S. High Yield Cash Pay 2% Issuer Constrained Index (ex-tobacco)] over a full market cycle, which is usually considered to be three-to-five years. The internally managed (Core) fixed income assets are expected to outperform the Barclays Capital U.S. Aggregate benchmark by 10 basis points annually, and the externally managed (Opportunistic) fixed income assets are expected to outperform the Portfolio Policy Benchmark by 35 basis points annually. Based upon our share of the assets, fixed income alpha is expected to represent 5 percent of the total plan objective of 60 basis points.

Currency Management - The primary role of the Currency Management Program (CMP) is to preserve the value of the Fund's non-U.S. public and private equity assets against a strengthening U.S. dollar. A secondary objective is to design strategies to take advantage of potential alpha opportunities in the currency markets. The internally managed portion of the CMP is expected to generate 10 basis points, annually, in alpha. While the performance objectives are currently being finalized with the remaining external currency managers, once they are in place, it is expected that they will be able to generate between 100-125 basis points annually in alpha. Based upon the size of the CMP, that represents the potential to contribute 10 percent of the total plan objective of 60 basis points.

Securities Lending - The Securities Lending Program (SLP) generates incremental income to the Fund through collateralized, low-risk, short-term loans using a portion of the lendable assets within the Investment Portfolio. Although there are no explicit goals with respect to alpha generation, the SLP has added over four basis points, on average, annually to the return of the Fund over the past twenty years, representing approximately 7 percent of the total plan objective of 60 basis points.

Taken together, the fixed income asset management, currency management and securities lending programs are anticipated to contribute roughly 20 percent of the Total Fund's alpha target.

Risk Management - At CalSTRS, the risk management framework has been developed within the context of a risk budget, in order to align the management of the assets with the System's risk-adjusted investment objectives. Risk budgeting involves first the measurement, then the monitoring, and finally the management of exposures to economic and fundamental drivers of risk and return across the portfolio(s)/program(s). These exposures are managed within the risk tolerance established by the System's Policy documents (i.e., Investment Policy and Management Plan, Fixed Income, Currency Management, and Securities Lending Policy) set by the Board.

Within the fixed income portfolio(s)/program(s), tracking error, defined as the amount of quantifiable risk an investor is willing to take versus the performance benchmark, and volatility, defined as standard deviation or how much price movement an investor is willing to assume, are used as standard tools to measure risk. The BlackRock Solutions platform is integral to measuring and then monitoring the tracking error/volatility ranges established by the Director and Portfolio Managers, depending on the strategy (i.e., Core versus Opportunistic Fixed Income, Currency, Short-term, Cash Collateral) under consideration. Staff then budgets/aggregates this risk across the various portfolio(s)/program(s), based upon our outlook for the investment markets, and monitors the changes on a daily basis. The

information from the measurement and monitoring processes are used to manage and then report the exposures within the context of the Investment and Performance Objectives. Risk management has always been an integral part of the fixed income portfolio management process.

Diversification is also critical to control risk and maximize returns. CalSTRS is expected to diversify each of the portfolio(s)/program(s) in a manner consistent with prudent person guidelines. Consequently, in addition to parameters within the Investment Guidelines, thresholds with respect to credit exposure, issuer concentration, and maturity constraints are used to further mitigate the risk across the Portfolio.

FY 2010/11 – Continuous Improvement

Last year at this time, we were still in the midst of a severe recession, reeling from the toll that the financial crisis took across the CalSTRS Investment Portfolio, yet seeing evidence that policy actions and massive injections of capital into the banking system by governments around the world were taking hold and restoring liquidity and a sense of confidence in the global financial system. Global economic fundamentals, along with unusually distressed valuations, fueled investors' risk appetites over the past year. In response, staff took steps toward structuring the portfolios and programs to benefit from an economic turnaround in assets that would perform better in an environment of moderate inflation, more volatility, and potentially higher interest rates. Our strategies and decisions have been developed over time within the context of "lessons learned," not only from the previous 18 months, but also from previous financial crises, which will continue to frame our actions over the next year. We continue to broaden the lines of communication, look for ways to implement strategies efficiently, and better control manager and subscription costs.

Fixed Income – One of the major trends we've observed over the past several years is the "blurriness" of the lines between investment opportunities across the asset classes. In response, a cross-functional team throughout the Branch and within the Fixed Income Unit has been brought together to leverage our respective talents and experiences to take advantage of opportunities in securities that may be experiencing either distressed or near-distressed pricing levels or could add value to the Fund through additional diversification. These teams meet on a regular and ad-hoc basis and provide a forum to hear a variety of strategies and voice alternative views and concerns. In conjunction with this forum, staff has developed a streamlined and competitive alternative for hiring external managers, in order to decrease the end-to-end processing time and costs associated with delays inherent in the traditional

Request for Proposal (RFP) process. A similar team is also in place to research best practices regarding hedging and derivatives processes, in order to enable us to prudently hedge risk in the future (as well as to efficiently gain exposures that may otherwise be difficult to put on due to our size). Lastly, controlling costs is also a high priority, given the continued difficult economic and budgetary environment. The Investment Branch has established a goal of a 15 percent reduction in the overall costs (i.e., asset manager, research and subscription fees), and will continue going forward until each relationship has been reviewed.

Currency Management - Staff will continue to work toward completing the implementation of the CMP restructuring approved by the Investment Committee in 2006. We currently have two currency managers established and actively managing portfolios for us. We are in the process of establishing guidelines and getting a contract finalized with a third new currency manager, in order to complement and diversify our internal core strategy, and are on target to have them in place within the next couple of months. Up to four managers will be selected to provide not only a potential alpha source (i.e., Opportunistic Strategy) for 10 to 30 percent of the Program, but also a powerful resource and relevant benchmark comparison for the internal program (i.e., Core Strategy) that represents 70 to 90 percent of the Program.

Securities Lending – Staff continues to work in a risk controlled manner toward recovering the securities lending income lost as a result of the unprecedented financial challenges in the marketplace. We will also continue to work closely with the Corporate Governance unit, in order to demonstrate best practices for the SLP and continued leadership within the securities lending industry. Finally, as described in the SLP Annual Report, we will be conducting a Securities Lending Agent search sometime during the upcoming fiscal year. The intent of the search is to refresh our agent pool and ensure that we continue to have high quality lending agents and cash collateral external managers to complement our internal cash collateral management program and that the structure continues to maximize our asset utilization and earning potential in a cost effective manner.

Key Success Factors and Challenges

- Recruitment and retention of well-qualified staff
- Ability to focus on core, return-producing priorities
- Ability to tap research/analytics with top firms in the industry
- Continued access to technology to operate more efficiently

- Continued access to educational opportunities
- Opportunities to update/streamline administrative processes
- Implementation of external currency managers
- Ability to tactically implement new strategies
- Recovery of securities lending collateral losses

Conclusion

The economic landscape has certainly changed for the positive, and risk asset valuations are reflecting the ensuing confidence. Although we expect returns to taper back to the mean over the next year or two, we are heartened by several developments this year: businesses' continued cost-cutting and de-leveraging, which produced record profits for many; many large banks continued to clean up their balance sheets by raising capital and repaying government TARP funds; and credit markets made a comeback after being stabilized through the federal government's aggressive policy actions. However, unemployment remains a key issue. Consumers will not really benefit from higher inventory and production until they have jobs and the requisite income necessary to fuel industry growth. It also remains to be seen how the European banking crisis will ultimately impact the global economic recovery. We, therefore, continue to expect low GDP growth in 2010.

Looking forward, we expect continued improvement in U.S. economic growth, which should generally bode well for non-treasury securities and the U.S. dollar. We are not, however, expecting rapid growth and are therefore positioning ourselves across the portfolio(s)/ program(s) within sectors that emphasize yield and coupon clipping (as opposed to significant price appreciation), with an emphasis on higher quality and risk management. As a result, we may continue to be taking gains in selected areas, including our external managers, where we determine that overvaluation is likely.

C. Real Estate

Business Plan for 2010–11FY

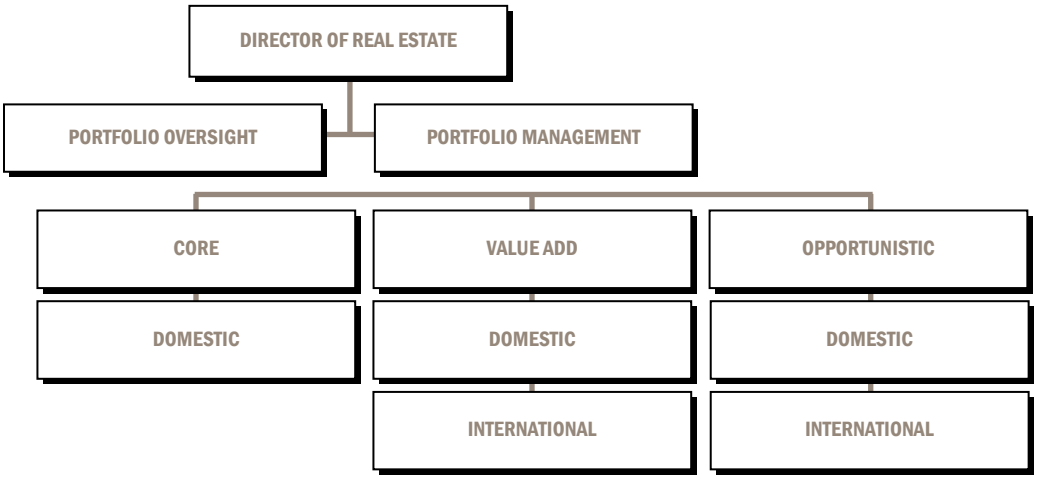
Real Estate—Unit Description

The primary objective of the real estate asset class, within the overall CalSTRS Portfolio, is to provide diversification. The secondary objective is to enhance yields and provide stable cash flows. Real Estate needs to generate 17 of the 60 basis points of the total fund. As it is only 11 percent of the total fund, we need to beat the real estate benchmark by 150 basis points.

At present, investments are comprised of 82 percent domestic and 18 percent international, with a long term goal of 20—30 percent of the portfolio to be in international markets.

Currently, the Real Estate staff is made up of 15 full-time and one-part time staff members. There have been no additions to staff in the last fiscal year. While the furlough imposed on all CalSTRS employees has clearly not had a favorable effect on efficiency and morale, the Real Estate staff remains focused and committed to achieving performance goals.

Business Units	Personnel
➤ Real Estate Portfolio Management	10.5
➤ Real Estate Portfolio Oversight	4.0
➤ Support Staff	2.0
➤ Total	16.5



Real Estate

Performance Objective

The Investment Committee approved changes to the Real Estate Policy at the June, 2010 meeting. The updated policy calls for re-categorizing each real estate investment from "Core" and "Tactical" to "Core", "Value Add" and "Opportunistic". The board also approved a move from the previous benchmark of the National Council of Real Estate Investment Fiduciaries (NCREIF) Index to three new Indices that match the Core, Value Add and Opportunistic categories and better mirror the risk/return characteristics of each.

These benchmarks are Open End Diversified Core Equity Fund ("ODCE") for Core; the NCREIF Townsend Value Fund Index for Value Add and the NCREIF Townsend Opportunistic Global Index for Opportunistic. Over the next year, staff will be working with Townsend, the board's consultant, to appropriately designate investments into these new categories. During this transitional fiscal year of 2010/2011, Townsend will analyze the portfolio using both the existing and new benchmarks before moving to the new benchmarks permanently.

In addition, the Investment Committee has expressed a goal to lower the risk in the portfolio by accentuating Core investments on a relative basis over both Value Add and Opportunistic investments. Staff has agreed to present an implementation plan to the board in an upcoming meeting. This business plan incorporates the basic goal of this plan.

Risk Management

Improved risk management is an integral part our business plan, with increased emphasis on monitoring and effectively managing risk on both the asset and liability side of the balance sheet. On the asset side, the primary focus will be on continued leasing progress, using our strong capital position to increase occupancy and drive net income and appreciation growth. On the liability side, in addition to reducing overall leverage, a key area of focus will be on appropriate asset-liability matching as well as implementation of more consistent debt mark-to-market procedures to reduce volatility in portfolio performance. We have also improved our valuation procedures, and are currently undergoing a complete review of our financial reporting and cash management procedures, all of which are important areas of risk control and management. In addition, we have undergone a procedural audit which reportedly has minimal findings of concern but does list areas where we can improve.

Fiscal Year 2010/2011 Continuous Improvement

Specific to our portfolio, a great deal of progress has been made in advancing the themes and initiatives outlined last year. The "Back to Basics" theme has been implemented, with a major focus on achieving our leasing and operational goals. The "Take the Pain Now" approach to valuing our portfolio has served us well, as more realistic valuations have been critical in making appropriate capital allocation decisions on existing assets. Significant progress has also been made in better monitoring and reducing our portfolio leverage risk.

This year's theme of "Continuous Improvement" matches the Real Estate group's goals quite well. It is evident in our success in materially reducing investment management expenses, achieving high levels of staff engagement with no turnover, effective deployment of our independent fiduciaries, and, in conjunction with Townsend, critical evaluation of the performance of our investment managers and partners. With respect to portfolio management, our new policy requires staff to evaluate all our investment positions and, working with our consultant, to place each investment into our newly adopted categories of Core, Value Add and Opportunistic. Because individual assets can move from one category to another due to changes in occupancy and leverage levels, we also will be negotiating changes in our manager agreements to allow transfer when appropriate.

This recategorization is an important aspect of our intermediate term strategy, given that a key source of increased exposure to core assets will come from stabilization of assets that currently reside within our value-add and opportunistic buckets. That strategy will be supplemented with an increased weighting toward Core properties on new investment opportunities, as we are currently underweight to Core given the adoption of our new policy. This fiscal year, we will conduct a search through a Request for Proposal for Core managers, and will likely expand our current pool to add well qualified Core partners (unlike Value Add and Opportunistic strategies, where we believe we are already well positioned with our current investment partners). Further, we expect to expand some current relationships while contracting others, and add expertise in markets segments where we do not currently have "best in class" coverage.

Key Success Factors and Challenges

- While economic growth has rebounded, with the U.S. currently in its fourth consecutive quarter of expansion, the European crisis has dramatically increased market volatility. In addition, job growth continues to be uneven and lags the broader recovery. As a result, tenant demand (albeit varying across

property types) is still generally in a slight downward to flat trajectory which has kept rents under pressure despite dramatically reduced supply of real estate.

- Capital availability for real estate investment has rebounded dramatically for both debt and equity. The majority of capital is focused on high quality core assets in primary markets which has significantly increased competitive bid activity and pricing, resulting in a scarcity premium amidst the limited number of core transactions that have come to market. However, there is still little available capital for assets with development or leasing challenges, creating potential opportunities in these areas.
- Valuations have sharply declined over the last two years, but appear to have bottomed and in some cases are seeing a modest rebound as a result of strong bid activity on high quality core properties.
- Lenders continue to extend troubled mortgages, and as a result the deleveraging of the real estate market is proceeding slowly, with the market still facing a significant wall of debt maturities over the next several years.
- The Euro crisis has changed the market outlook for interest rates, with a likelihood of a more extended period of accommodative monetary policy and low Treasuries rates that is generally favorable for the cost of real estate debt capital and cap rates.
- Staffing is not expected to increase in the coming year. The resolution of the State of California's budget crisis and how it affects the addition of new employees, as well as the retention of existing employees, remains equally uncertain.

A significant portion of the investments that are in "workout" in our portfolio are either completed or well underway. However, these have proven to be heavy consumers of staff's resources. A challenge in the coming fiscal year will be to continue to balance our efforts to maximize returns in the existing portfolio and capitalize on new opportunities as they occur.

Conclusion

While there has been a discernible improvement in market sentiment, liquidity, and the cost and availability of capital in the commercial real estate markets over the past several months, significant challenges to a sustained recovery remain. A weak job market, a return

of volatility to the broader capital markets, and a real estate market facing a long road to deleveraging reinforce the critical need for ongoing and effective risk management at both the property and portfolio level.

The dramatic decline in property values brought about by the global credit crisis and recession has caused us to reflect not only on lessons learned, but also how best to apply those lessons going forward as part of the “Continuous Improvement” theme. These initiatives will lead to more effective management and growth of the Real Estate portfolio to optimize its risk-adjusted returns, consistent with the new policies. The re-categorization of the portfolio into the three new buckets, as well as the consistent overlay of improved leverage valuation processes, and other risk oversight, cash management, manager selection and evaluation, financial reporting, property k control and management techniques across all three buckets, will be integral to our success going forward.

Importantly, the ongoing challenges facing the real estate market on its road to recovery will also provide the basis for attractive new investment opportunities, not only within the U.S. but also globally. Our goal is to not only stay alert to such opportunities, and position our program to take advantage of them in a manner that effectively deploys the policy and procedure enhancements highlighted above.

As we noted last year, despite the still unsettled nature of the real estate space and capital markets, we are confident that CalSTRS is well positioned to participate in the eventual recovery of commercial real estate markets both domestically and globally. The new policies approved by the Investment Committee will be an integral part of achieving our long term goal of top-tier real estate investment performance.

D. Private Equity

Business Plan for 2010–11FY

Private Equity—Unit Description

Private Equity (PE) oversees a portfolio of private equity limited partnerships managed by external general partners. In addition, PE makes side-by-side co-investments alongside its private equity general partners. PE also manages the Credit Enhancement Program (CEP) which underwrites municipal transactions on an opportunistic basis.

There are four main industry sub-segments in which PE invests: (1) Buyouts; (2) Equity Expansion; (3) Venture Capital; and (4) Debt Related. The Proactive Group is a sub-group within PE that focuses on new and next generation external managers as well as external managers dedicated to underserved urban and rural markets.

PE has a benchmark consisting of the Russell 3000 plus 300 basis points. The CEP has a goal of earning fee income with zero losses.

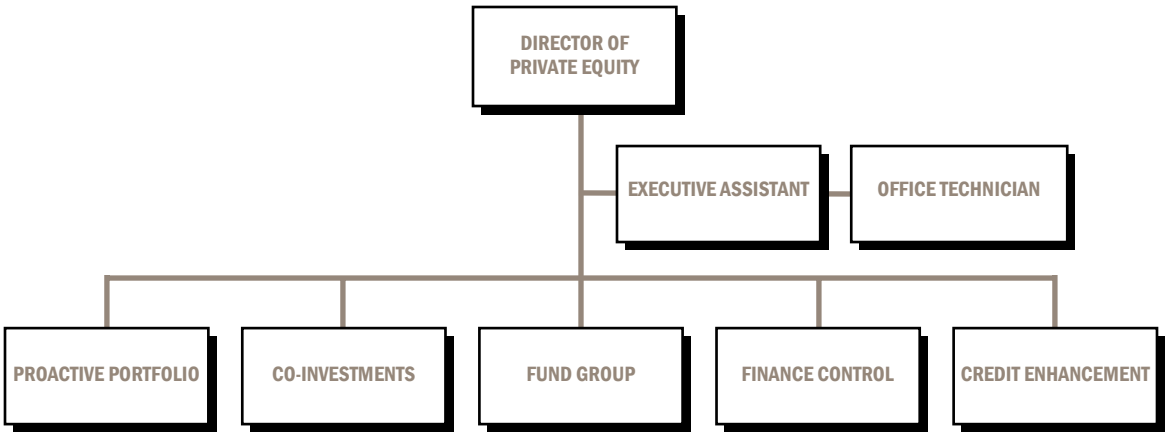
PE is 90 percent externally managed through limited partnership funds and 10 percent internally managed through its co-investment portfolio. The CEP is 100 percent internally managed.

PE is currently budgeted for 20 personnel years as follows:

Business Units	Personnel
➤ Private Equity Group	13
➤ Proactive Group	2
➤ Credit Enhancement	3
➤ Support Staff	2
➤ Total Staff	20

An organization chart depicting the structure of the PE Program follows on the next page.

Private Equity



Performance Objective/Risk Management

The asset class goal for PE is to outperform its benchmark (Russell 3000 plus 300 basis points) by 150 basis points (i.e., Russell 3000 plus 450 basis points). Since PE assets constitute approximately 12 percent of total plan assets, the 150 basis points of outperformance equates to 18 basis points of the targeted 60 basis points of outperformance for the total plan, or 30 percent of the overall plan's target alpha.

FY 2010-11 Continuous Improvement

PE is dedicated to the concept of continuous improvement; it continually identifies areas of potential improvement and implements those deemed most deserving. Results are evaluated and further iterative improvements are pursued as appropriate. Our goal is overall excellence in the program.

The most significant improvement activities currently underway are as follows:

- **Staff specialization:** Staff is in the process of increasing and formalizing sub-sector expertise among its members. Each investment professional has been assigned one or more areas of expertise. The goal is for all team members to retain their overall high level of general industry knowledge while also gaining deeper domain knowledge within their individual areas of expertise.
- **Private Equity Review Committee (PERC):** The role of the PERC is to review all important investment decisions pertaining to PE. Staff is in the process of formalizing the PERC voting process and adding additional protocols to ensure

that all senior investment professionals in the group actively participate on the committee and are held accountable for their votes.

- **Increased operational resources:** As the private equity industry has matured and become more institutionalized over the past several years, reporting, accounting and compliance requirements have become more complex and time consuming (examples include more stringent fair market value standards, greater scrutiny of unfunded commitment amounts and an increase in the amount of portfolio company information available to analyze). PE's resources dedicated to reporting, compliance and accounting have not kept pace (especially when the overall growth of the portfolio is factored in). PE is in the process of reorganizing its internal operations group and adding a new position to oversee all such activities.
- **Administrative reduction:** Business initiatives often involve new administrative burdens on staff (in the form of additional meetings, memos, forms, procedures, etc.). Therefore, concurrent with the implementation of all improvements, efforts are being made to eliminate all unnecessary administrative practices within the PE organization. The goal is to avoid a net increase in administrative requirements (or even bring about a reduction if such is possible).

Key Success Factors and Challenges

The aftermath of the financial crisis (spotlighted by the collapse of Lehman Brothers in September 2008) has yet to be resolved. Some dust has settled, but the ramifications for the private equity industry remain to be seen. Key questions that staff are continuing to review include:

- To what extent is there over-capacity in the industry and which funds in particular are over-capitalized?
- How will the industry realign? Which will be the general partners that recover, take advantage of current financial and economic displacements and prosper, and which will decline and possibly go away? Do the current industry conditions bode well for new start-up firms?
- Which of the sectors, subsectors, and geographies within the private equity universe are most likely to deliver high rates of return at reasonable levels of risk?
- To what extent should the CalSTRS PE portfolio expand or contract in terms of active general partner relationships in the near to medium term?

Some of staff's specific views on these issues are proprietary and will not be discussed in this public document. However, the following general points can be addressed:

- PE staff believes that caution is still warranted with respect to investment pace; in most subsectors of the industry, a large overhang exists and staff does not foresee significant access issues in the near future (i.e., if industry activity picks up, staff believes that it will still have the ability to access quality partnerships).
- In the post-Lehman environment, more effort is being spent in monitoring the current investment portfolio rather than searching for and evaluating new general partner relationships. (Exceptions to this tendency exist, especially in the area of debt-related private equity investments). Staff believes that this is fully warranted as several of its partnerships have had weaknesses exposed (either in their organizations or their portfolios) and in some instances, circumstances have arisen that require intensive attention (e.g., key man triggers, extension requests, waiver requests, etc.). That said, there are likely to be many attractive investment opportunities to be found from non-traditional sources in the current investment environment.
- Given the combination of circumstances described above, staff believes that it is more important than ever to be in the field observing and analyzing the major developments occurring within the industry and within the PE portfolio. While being mindful of travel budgets, Staff is redoubling its efforts to stay in close contact with its general partners, fellow limited partners, and other industry insiders.
- Legal and economic terms continue to evolve to the benefit of limited partners in the private equity industry. CalSTRS is a signatory of the ILPA Private Equity Principles, and staff is working diligently in conjunction with other major limited partners to bring about fundamental changes in the legal structure and economics of private equity partnerships. Fairness issues, transparency, alignment of interests and investor protections are being substantially improved for new generation partnerships. The improvement process is ongoing.
- PE remains committed to finding, funding, and developing new and next generation managers as well as managers focusing on underserved urban and rural markets. PE also remains committed to its portfolio of investments focusing on sustainable technologies. These endeavors require a disproportionate level of resources for the commitment amounts achieved but these also represent markets that could be substantially larger in the future.
- PE remains active with the United Nations Principles of Responsible Investing (UNPRI). These principles require that a documented method be employed to ensure that environmental, social, and governance issues are considered in our investment decision-making process. Staff is in the process of establishing an infrastructure to comply with the UNPRI requirements.
- CalSTRS will selectively make co-investments with the goal of benefitting from the superior economics of these investment opportunities. Co-investments also provide staff with a deeper knowledge of the skills and abilities of our general partners.

- The CEP team is closely monitoring the public finance markets. The CEP is looking to maintain its current level of commitments. However, there has been some run-off in the portfolio due to changing market conditions. Staff is selectively making high quality new commitments to replace those that have left the portfolio.

Conclusion

After an extended period of years in which the PE portfolio expanded in terms of market value, complexity and number of general partner relationships, staff believes it has entered a period in which there will be a net reduction in the number of its active general partner relationships. Staff is redoubling its efforts to monitor its existing partnerships and detect those heading in errant directions while at the same time remaining alert to new (and potentially less traditional) investment opportunities.

A fundamental challenge for the team at this point in time is to identify what has changed and what will remain the same in the industry. Staff will continue to invest in partnerships with highly experienced and stable management teams, proven track records, sound investment theses and sustainable competitive advantages. Alignment of interests and utmost integrity remain requisite.

E. Corporate Governance

Business Plan for 2010–11FY

Corporate Governance—Unit Description

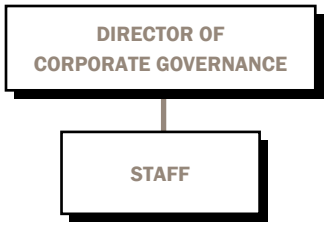
- Global equity assets
- $3,081 million portfolio
- 87% domestic equity
- 13% international equity
- 97% externally managed core
- 3% internally managed co-investment
- 6 external managers
- 8 funds
- 8 internal staff

The Corporate Governance unit is responsible for the Corporate Governance Activist Manager Portfolio and for promoting best governance practices within the CalSTRS Investment Portfolio. Improved corporate governance reduces the risk associated with the Investment Portfolio and allows for more sustainable, long-term investment returns. The major issues that the Corporate Governance Program will focus on in fiscal year 2010-2011 are sustainability risk management, diversity on corporate boards, and financial market reform.

Business Units	Personnel
➤ Portfolio Manager	1
➤ Investment Officers	5
➤ Administration & Management	1
➤ Support Staff	1
➤ Total Staff	8.0

Corporate Governance

An organization chart depicting the structure of the Corporate Governance unit follows:



Performance Objective / Risk Management

The Corporate Governance Activist Manager Program's objective is to augment the Global Equity performance objective of earning, over time, 21 basis points above the stated plan benchmarks, currently the Russell 3000 ex-Tobacco Index and the MSCI All Country World ex-U.S. ex-Tobacco Index.

The Corporate Governance Activist Manager Portfolio's goal is to exceed the Russell 3000 ex-Tobacco Index by 150 basis points for the U.S. component of the portfolio, and to exceed the MSCI All Country World ex-U.S. ex-Tobacco Index by 150 basis points for the non-U.S. component of the portfolio. Since we are 2.3 percent of the Total Fund, that equates to 1.38 basis points of the 60 basis points combined goal for the Total Fund.

Risk Management of the Corporate Governance Portfolio

- Continuous monitoring of markets and market conditions
- Increased diligence on existing managers – more meetings, calls, etc.
- Increased diligence on performance attribution and contribution, investment process of external managers
- Increased diligence on the staffing and resource levels at external managers
- Review of co-investment portfolio goals and operation
- Review of emerging markets for strategy application

As mentioned previously, the Corporate Governance Program will focus on improving the CalSTRS Investment Portfolio's governance profile through advocating greater awareness of, and attention to, sustainability risk management within the investment community,

promoting greater diversity on boards of directors, and engaging the investment community on the need for financial market reform. Increasing the number of companies with whom we engage, continuing to speak publicly on issues of importance, growing our network of collaborative partners, and increasing our meetings with government and regulatory representatives will represent success in promoting best practices corporate governance.

FY 10/11 Continuous Improvement

Managers

- Seek out new managers in markets not currently covered (Asia)
- More favorable terms (fees, carry, holdbacks, clawbacks) from existing managers
- Better terms from new managers
- Evaluate existing manager performance for possible commitment reduction or partnership termination
- International Fund Services (IFS), a subsidiary of State Street Bank was brought on as a fund administrator to function as an independent third-party to recalculate financials, performance, and fees.

Sustainability

- Better utilization of existing tools (use PRI network and clearing house more often to gather support for sustainability issues)
- Consider new areas of engagement (water, extractives, agriculture)
- Improve shareholder proposal work plan (earlier recognition of targets and engagement efforts)
- Consider new data service providers (that could provide more relevant information)

Diversity

- Enlarge network of investors promoting board diversity (establish new partnerships)
- Improve information dissemination systems (websites, blogs)
- Increase transparency of the nomination process in corporate elections
- Increase the pool of qualified directors

Financial Market Reform

- Continue efforts to improve the systemic market apparatus for investors

Corporate Governance

- Evaluate the use of Proxy Access for Portfolio Application
- Increase efforts on Majority Voting, Say-on-Pay, Executive Compensation Disclosure and Metrics
- Evaluate the use of Securities Litigation for Portfolio Application

General Corporate Governance Enhancements

- Launch a California Corporate Governance website to establish A network of California pension funds to develop a coalition aimed at promoting best practices in corporate governance
- Use Proxy Voting Platform in the new fiscal year to free-up staff time for more targeted work

Key Success Factors & Challenges

- Activist managers navigating turbulent markets
- Identifying most-skilled activist managers to partner with
- Integrating new proxy voting platform
- Building consensus among investors on governance issues of importance
- Overcoming expected increase in corporate lobbying
- Convincing Congress that climate change legislation is needed
- Maintaining current staffing levels
- Keeping department morale high

Conclusion

Staff expects that the current difficult economic circumstances, including increased market volatility will continue into the next fiscal year and that the market place will be difficult for institutional investors. Staff will work to increase the alignment of shareholder interests with that of management and boards and with our investment partners in an effort to mitigate the risk to the overall portfolio.

F. Absolute Return

Business Plan for 2010–11FY

Absolute Return / Infrastructure—Unit Description

In early 2008, the Board approved a 5 percent allocation to the Absolute Return asset class. The two assets approved within the asset class were Treasury Inflation Protected Securities (TIPS) and Infrastructure, which have equally weighted allocations of approximately of 2.5 percent or $3.0 - $3.5 billion each.

In July 2008, the Infrastructure Investment Policy was approved by the Board. The key objectives of the program are to provide diversification to the overall Fund, generate long-term cash flows to hedge against long-term liabilities and protect the portfolio against inflation. The performance objective was set at an inflation linked benchmark of CPI + 5 percent net return.

The Infrastructure policy guides the investment process. Based on the policy guidelines, investments will be made in the next three to five years, which will provide both time and sub-sector diversification.

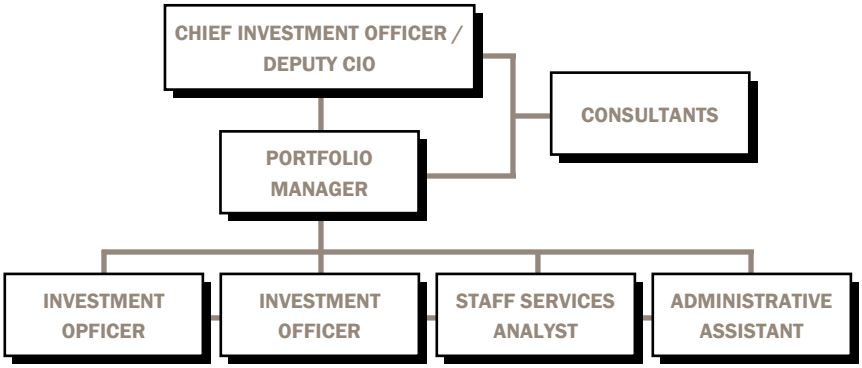
In February 2010, a portfolio manager was selected to lead the Infrastructure investment efforts. The portfolio manager currently reports directly to the chief investment officer. In the interim, the director of Innovation and Risk is assisting the portfolio manager in implementing the program. Currently, there is no other staff dedicated to this program. However, as the program develops over the next three years, it is anticipated that more personnel will be needed to support investment efforts and the growth of the Infrastructure portfolio.

Business Units	Personnel
➤ Portfolio Manager	1

Absolute Return

Current Structure

Planned 1—3 Year Structure



There are currently no assets under management in the Infrastructure portfolio. Since the appointment of the portfolio manager in Spring 2010, staff is developing the internal processes and working towards hiring a general Infrastructure consultant and a pool of independent fiduciaries with niche infrastructure expertise (e.g., project finance, engineering, etc), as well as hiring legal counsel. Also, staff is formulating the portfolio construction plan for the program, internal cash management processes, procedural manuals, etc.

Performance Objective/Risk Management

The goal of the Infrastructure program is to provide stable long-term returns and diversification to the overall Fund. Staff will look for infrastructure opportunities that will provide a stable source of income and some capital appreciation with underlying assets generating cash flows commensurate with inflation. Infrastructure assets that have long-term cash yield with low capital expenditures will be preferred.

The overall strategy is to create a portfolio of investments within the infrastructure space that is well diversified and has underlying assets with a solid risk/return profile. To accomplish this goal, staff will need to select the appropriate investment structures and investment managers.

Risk management processes and controls will be utilized to build a robust risk analysis and reporting process (i.e., risk modeling, stress testing, exposure analysis, risk budgeting) to reduce "surprises", identify unwanted risk, ensure key risks are managed, and promote better communication between front, middle and back-office functions.

2010/11 Continuous Improvement

Detailed due diligence will guide the investment process. Staff will perform extensive due diligence on investments that will be recommended to the Board. Currently, the Board has the full discretion in deciding Infrastructure investments. An Internal Investment Review Committee (IIRC) will be formed to review the recommended investment opportunities. This committee will include the CIO, one or more director(s), one or more portfolio manager(s), and one or more investment staff from different asset classes, to constitute a minimum of three members. One of the members will be acting as the contrarian. To capture the best internal expertise, the membership of this committee may be different based on the type of the investment under review. As the Infrastructure program grows and investment staff is added to the Infrastructure program, the IIRC member composition may change for internal control purposes.

Detailed procedure manuals will be created and rigorous risk measurements will be taken as the program grows and assets are added to the portfolio. Given that Infrastructure is a developing asset class, especially in the United States; staff will also continue to learn the developments within the asset class via conferences, research material, meeting with peers, etc.

Staff will be closely involved in the creation of the Association that the Institutional Real Estate Inc. (IREI) is initiating to focus on implementing industry accepted standards for infrastructure investments.

Key Success Factors and Challenges

CalSTRS is a highly desired Limited Partner (LP) by the General Partner (GP) community. This position, in addition to having an experienced and sophisticated investment team, is important to be a long-term, successful investor.

Absolute Return

The infrastructure asset class within the United States is relatively new and developing rapidly. Infrastructure is becoming much more complex with alternative products and ownership structures. The support of the CalSTRS Investment Committee is critical to the future success of managing the Infrastructure portfolio when modifying policies to address market changes.

A strong oversight process will be a key component in building a successful program. The following initiatives are some ways that the program plans to implement an oversight process:

- **Gain insights into the risks.** Risks include but are not limited to fiduciary, market, strategic, operational, financing, country, headline, and reputation risks. Staff will continuously monitor these risks to protect CalSTRS from unexpected impacts as well as to manage the risk profile for the Infrastructure portfolio.
- **Research and attribution analysis.** Staff will research the sector on an ongoing basis while analyzing performance as the program grows.
- **Investment accounting, compliance, internal audit, and corporate governance.** Staff will focus on these areas as investments are made and focus on communicating with key members of each unit within the organization.
- **Regular oversight and monitoring of investments.** Given the long holding periods for infrastructure investments, staff will closely monitor activities related to such investments.

Following are some of the initial challenges anticipated for the program.

- Top-tier manager selection is challenging due lack of performance history. Some infrastructure fund managers are new to the industry and currently raising capital.
- Recent market dislocation is requiring more in-depth due diligence on managers' true experience and track records.
- Lack of a standardized benchmark has given investors the discretion to use a benchmark based on their strategy and portfolio objectives.
- Costs are expected to increase as the program grows to support internal infrastructure, including staffing, advisors/fund managers, independent fiduciaries, legal support, and performance and risk measurement tools (no estimates available at this time).

Conclusion

The CalSTRS Infrastructure Program will be focused on stable, long-term, cash yielding investments with the top investors in the world, but will evolve in several ways, including:

- Focus investments initially in both the U.S. and Organization for Economic Co-Operation and Development Countries (OECD), with some emerging market exposure;
- Source co-investments, funds, direct investments, consortiums, and joint ventures for the purpose of getting access to high quality assets;
- Prioritize investments in the clean and alternative energy markets, including energy efficiency strategies, as well as in the California markets; and
- Work towards gaining status as a world class infrastructure investor that is driven by the best practices and governance in the industry.

G. Innovation and Risk

Business Plan for 2010–11FY

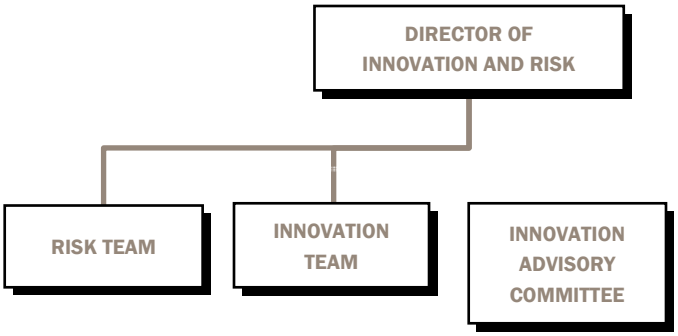
Innovation and Risk—Unit Description

In early 2009, the Innovation and Risk (IR) unit was established to identify, research and incubate investment opportunities that currently are not utilized by the fund. In addition, the IR unit is charged with monitoring the fund-wide risks of the total portfolio.

The primary role of the Director of IR is to provide leadership, strategic planning and program oversight. The Innovation team within the Unit has two full-time experienced investment professionals dedicated to the research and incubation of new investment opportunities. The combined global investment management experience of the team members, including the Director, is more than 45 years. The scalability and efficiency of a three-person team will pay dividends as the Innovation team deploys capital later this year.

The Risk team has two full-time experienced investment professionals dedicated to managing the fund-wide risks of the Total Portfolio. The team is dedicated to developing a risk management process that focuses on both quantitative and qualitative risks.

Business Units	Personnel
➤ Innovation	2.5
➤ Risk	2.5
➤ Support Staff	1.0
➤ Total Staff	6.0



Innovation Portfolio

The Innovation Portfolio's allocation is not to exceed the lesser of 1.5 percent of the total fund assets or $2 billion. New strategies in the Innovation Portfolio must demonstrate success within three years of the initial investment before CalSTRS will commit large dollar amounts to the strategy. Each new strategy pursued is expected to improve the risk/return efficiency of the Total Fund by increasing the fund's expected return while maintaining or decreasing the level of risk or by decreasing its risk while maintaining or increasing expected return. To date, staff has not deployed capital as the Unit was focused on

establishing an analytical framework and tools. Global Macro, the first strategy approved by the Investment Committee, is expected to be implemented during the 2010/11 fiscal year.

Subsequent to a thorough analysis, internal review and approval by the Director of IR, the Innovation team presents the investment merits of a strategy to the Chief Investment Officer (CIO) and consultant (e.g., general or specialized independent consultant, if required) for final approval to incubate the strategy in compliance with the Innovation Portfolio Policy. In addition, staff has formed an Innovation Advisory Committee (IAC) consisting of the CIO and a subset of Directors from CalSTRS' other asset classes. The purpose of the IAC is to provide oversight to the Innovation team as wells as determine if strategies should be "graduated" from the Innovation portfolio. Within the three-year incubation period, the Innovation team shall conduct a full assessment of the investment strategy and determine if the strategy should receive a larger allocation or be terminated.

Risk Management

The Risk Management team is responsible for establishing a comprehensive framework to measure and manage the risk of the Total Portfolio. By collecting, maintaining and evaluating historical and forward-looking data concerning fund-wide risks, the team can assess the total fund risks. To mitigate unacceptable levels of risk, the team will proactively alert the CIO and Investment Directors to address these risks. The risk management process will strive to minimize any threat to CalSTRS' financial objectives of: 1) generating out-performance relative to the benchmark and 2) providing a return at least equal to the 8% hurdle rate.

Additionally, the Risk Management team is responsible for enterprise-wide risks for the Investment Branch. This includes managing compliance, business continuity and audit liaison roles. The team collects and monitors the Campaign Contribution and Gift Disclosure ("pay to play") Conflict of Interest reporting of all investment partners, including third party and placement agents. The team is also responsible for the Investment Branch Ethics Pledge and is creating a Personal Trading Policy for staff to regularly report their personal investment transactions. Additionally, the team updates, trains and tests Investment staff for the Investments Business Continuity Plan (IBCP).

Performance Objective

To assess the benefits of the Innovation Portfolio's first strategy, Global Macro, staff analyzed the strategy's low correlation to the Total Portfolio, positive asymmetric return

distribution, and historical outperformance during periods of financial distress. Based on this analysis, Global Macro was deemed to have the potential to both enhance the return and reduce the risk of the total fund.

Global Macro is currently in the second phase of this framework to determine the optimal characteristics including concentration of sub-strategies, investment horizon, investing style and trading methodology. Once the optimal portfolio has been determined, staff will focus on the third phase, which is to select the best Global Macro managers that fit the parameters of the portfolio. Innovation will also hire a hedge fund consultant during the first quarter of the fiscal year to assist in portfolio construction, manager selection, and both portfolio-level and manager-level monitoring.

The Innovation team has also researched and presented the role of commodities as an inflation-hedge, the various benchmarks and investment vehicles available, and the role of active and passive investing. On June 3, 2010, the Investment Committee approved an allocation to commodities. This fall, the Committee will review and approve policies as well as an implementation plan.

During the 2010/11 fiscal year, staff will focus on implementing commodities as well as the global macro hedge fund program. Staff will also present an education paper on Liability Driven Investing and focus on identifying at least two more opportunities to add to the Innovation Portfolio.

2010/11 Continuous Improvement

Innovation Portfolio

The Innovation team's mandate is in-line with this year's theme of "Continuous Improvement" by identifying strategies that will improve the total fund's risk-adjusted returns. Over the past twelve months, the Innovation team has been developing a framework to evaluate, implement and incubate innovative strategies. This framework entails three steps:

1. **Assess risk and performance of strategy.** The first step is to determine whether a new strategy improves the total fund's risk/return efficiency by increasing its return, reducing its risk or a combination of both.
2. **Implement strategy.** If the strategy passes the first step, the second step entails developing the procedures for implementing, managing and monitoring the new strategy.

3. **Incubate and monitor strategy.** The final step involves selecting the best managers within this strategy and negotiating appropriate terms to access the strategy.

The team will implement and continue to refine the framework during the 2010/11 fiscal year.

Risk Management

Over the next fiscal year, the Risk Management team plans to improve the fund-wide risk management process. These improvements include increased reporting frequency, greater granularity and refined risk measurement of the Real Estate and Private Equity portfolios. The risk reports will aide senior investment management staff in the investment decision making process. This requires an understanding of how the portfolio may behave in certain market environments and deciding how to manage or mitigate the risks embedded in the portfolio. The risk team intends to continually improve the risk monitoring, analysis and reporting process. This will be accomplished by the following:

- **Enhance data for modeling.** The goal is to increase the data quality of public fixed income assets by transferring terms and conditions from BlackRock, the Fixed Income system, to BarraOne, the risk management system. The risk team will also evaluate the effectiveness of MSCI Barra's upcoming real estate model.
- **Increase reporting frequency.** The risk team will increase reporting frequency from monthly to daily.
- **Design proprietary risk report framework.** The risk team will utilize information from quantitative reports and combine them with qualitative data to enhance our ability to manage portfolio risk. For example, the team is considering the measurement and monitoring of leverage and liquidity at the total portfolio level.
- **Identify and capture total portfolio drivers of return.** The risk team will work with each asset class to determine the primary return drivers.
- **Stress test data.** The risk team will stress the portfolio under various macroeconomic conditions and market events. This will help staff to better understand how the portfolio may perform when unexpected changes in inflation, interest rates or economic growth rates occur.

Key Success Factors and Challenges

Innovation Portfolio

To continuously improve the evaluation, implementation and monitoring processes, the Innovation team is focused on the following:

- **Develop a scaleable, automated ranking system for the innovation strategy pipeline.** A plethora of ideas are suggested to the Innovation team by internal staff, external partners, the Committee and others. With the quantity of ideas to be considered and limited staff, this system will be critical to assist staff in identifying the most compelling opportunities to investigate. However, finding sufficient data to analyze may be a challenge.
- **Transfer knowledge from consultants.** The complexity of hedge funds requires extensive due diligence and monitoring that focuses on both the investment and operational processes of a manager. Having a hedge fund consultant work alongside staff to assess and monitor these aspects will guide staff in their analysis. Valuable insight can also be gained from other consultants as the Innovation team considers new strategies. To date, staff relies on Pension Consulting Alliance and State Street Investment Analytics to provide perspectives on how CalSTRS' peers view innovative strategies and analyze these strategies.
- **Measure and monitor risk effectively.** Innovative strategies often present new types of risks that must be captured, measured and anticipated. Staff will work towards developing a system to identify red flags that anticipate challenges and establish action steps to address these risks.
- **Establish transparent relationships with managers.** Global Macro is one of the most discretionary strategies with flexibility to trade in many markets using many types of instruments. Having an open dialogue with managers will be critical to assess changes in the risks of the managers' portfolios. IR will apply market knowledge gained from Global Macro managers to CalSTRS' monthly tactical asset allocation decisions and performance attribution analysis. Staff will also focus on effective communication with the Committee regarding portfolio performance and risks.
- **Cost Reduction.** For each strategy considered, staff assesses the returns to ensure that most of the return can be attributed to alpha, as opposed to beta. Beta is the return that can be earned from overall market returns, generally by passively holding an index. The cost to earn beta returns should be negligible. On the other hand, alpha requires skill and is more difficult to generate. Consequently, alpha strategies will command higher fees. However, staff will

thoroughly analyze the appropriateness of the level and structure of the fees paid for alpha strategies with a focus on aligning managers' interests with CalSTRS.

- **Human Resource Management.** Since the IR unit is tasked with reviewing many potential investment opportunities, staff will require additional resources to build the portfolio, incorporate more complex securities, and manage the risks associated with them. Staff will be conscientious in weighing the "buy versus build" option along with keeping its cost structure flexible.

Risk Management

There are several challenges in measuring risk at the total fund level, including:

- **Improve the risk measurement of private assets (e.g., real estate and private equity).** Approximately 25 percent of the CalSTRS Portfolio is comprised of private assets (Private Equity and Real Estate, and soon, Infrastructure investments). Given the limited data available on private investments, it is difficult for the risk model to estimate the inherent risk in these investments. Currently, these securities are proxied in the BarraOne risk system. In the near future, MSCI Barra will introduce a new Real Estate model. It is anticipated that this new tool will vastly improve the quality of risk metrics for the real estate asset class.
- **Communicate fund-wide risk.** Fund-wide risk management must be integrated into the investment decision making process to be effective. It will be important for the Risk team to communicate in a timely manner both market and non-market risks such as counterparty, operational, leverage and liquidity risks.

Conclusion

The Innovation and Risk unit will continue to identify strategies that are less correlated, diversify CalSTRS' beta exposures and have lower volatility. Staff will also continue to reassess traditional methods of asset allocation, hedging and investing. Our focus is to stay on the leading edge of financial tools, concepts and risk management. Furthermore, staff will aggregate asset class information to best position the total Fund throughout the ups and downs of the market.

The unit will also seek to improve the fund-wide risk management process for the Investment Branch. The objective of the risk team is to complete building and maintaining a risk management process for the total portfolio that meets two primary objectives:

1. Identify and monitor the relative performance risk: total portfolio return vs. policy portfolio return; and,
2. Identify and monitor the absolute performance risk: total portfolio return vs. absolute return hurdle (e.g., 8%).

H. Operations

Business Plan for 2010–11FY

Operations—Unit Description

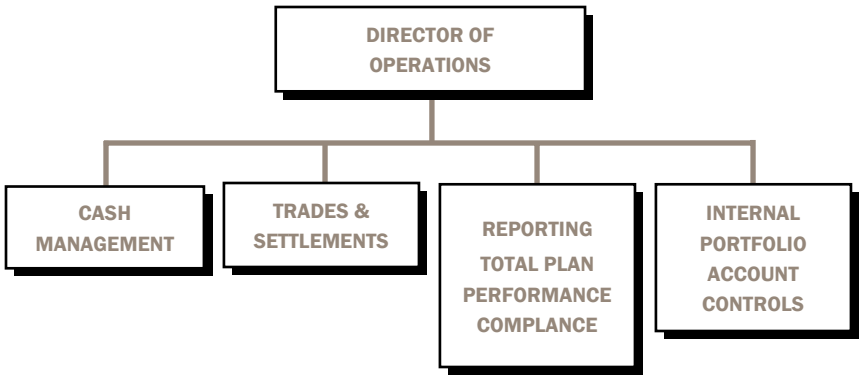
Investment Operations provides middle-office support and services for internal and external portfolio management activities. We manage a segment of the cash allocation which is used to fund benefit payments, ensure end-of-day cash is invested and that funds are made available to cover purchases in other asset classes or investment programs. In addition, Investment Operations manages the processing of daily cash movements, transactions and settlements, cash forecasting, performance reporting and portfolio controls over cash, accruals and positions.

It is important that someone other than the Portfolio Manager has responsibility for the day-to-day business management for the Investment office to enable the Portfolio Manager to concentrate solely on generating alpha. Our focus is on all aspects of asset management operations from new program launches to coordination of the external audit for the Investment office, operational risk reviews, technology reviews, supporting investment managers' requirements - all from an expert institutional investor perspective. We provide special services based on a skilled program knowledge and implementation track record for all asset classes.

Investments must leverage and invest in technology to manage a multifaceted $130 billion Fund with a staff of about 100 professionals. We are at the center to coordinate and facilitate the delivery of technology from our internal information technology staff and strategic business partners to the Investment office.

Business Units	Personnel
➤ Cash Balances , Trades and Settlements	7.0
➤ Portfolio Controls, Reporting & Performance	9.0
➤ Administration & Management	1.0
➤ Support Staff	1.0
➤ Total	18.0

Operations

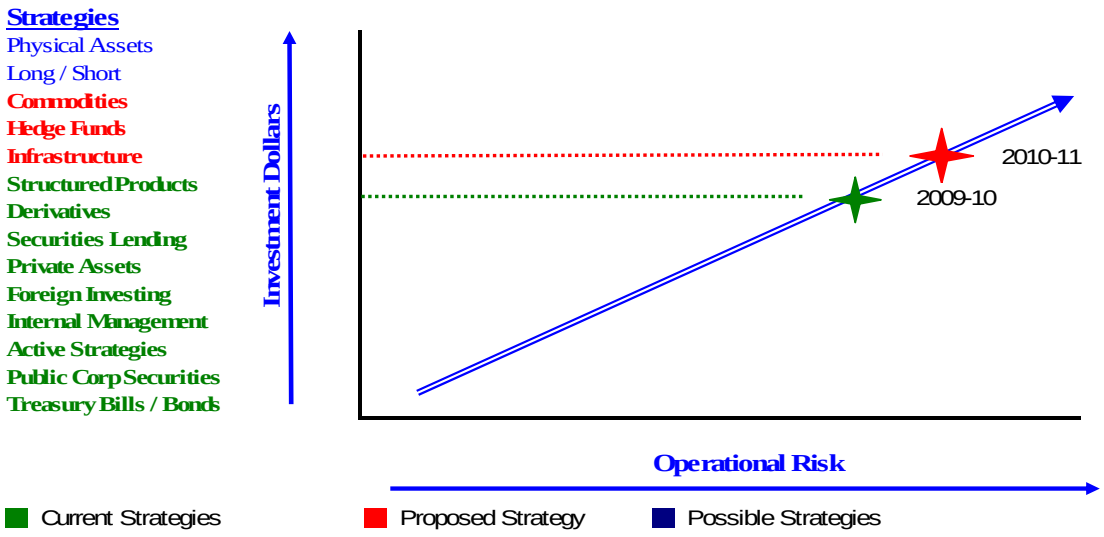


Performance Objective / Risk Management

Investment Operations' overall goal is to align our services and functions to investment activities and programs that cut across all asset classes for the success and implementation of the Investment Management Plan. We seek to minimize operational risks and establish effective controls by using portfolio management tools to perform independent quality verifications of the custodian and front office systems. We strive to provide management with the highest quality investment reporting and value-added services used to make sound investment decisions.

Strategic or tactical asset allocation shifts have a wide range of potential impact on Operational resources and risks. There are many facets to consider for instance transaction volume, complexity and implementation speed. Our cash asset allocation target is one percent and with our non-investment negative cash flows, constant vigilance is required to ensure sufficient cash balances are available to pay benefits and to make contributions to asset classes separate from cash.

The operational risk complexity has increased from prior year as a result of additional internal equity management (Canadian index, Russell 2000 index, Transition portfolios), internal fixed income management (Global TIPs, Opportunistic Currency Overlay, TALF), and the external Currency Program.



With dedicated CalSTRS staff and the assistance of major service provider's (i.e. State Street Bank), we have been successful in establishing internal controls, policies, and procedures which are used on a daily basis to mitigate operational risks. Operational risk refers to potential causes of loss arising from deficiencies in internal controls, human errors, physical systems failures, and other business execution risks, as well as external events. Operations' staff works closely with internal and external managers/advisors to refine our processes and functions servicing assets on a post trade basis.

FY 10/11 Continuous Improvement

Investment Operations' specific objectives for this year are:

- Support all Investment office business plans and implement new investment strategies and initiatives originating from each asset class;
- Creating efficiencies and reducing operational risks:
  - ◊ Implementing an end-to-end internal equity trade order management system (OMS) similar to Fixed Income's OMS,
  - ◊ Automating the trade confirmation process for debt securities, and
  - ◊ Implementing an electronic trade flow system for the Real Estate and Corporate Governance divisions;

- Continuing to work with other Business Units on the following:
  - ◊ Researching the asset allocation change to the Defined Benefit Supplemental and Cash Balance Programs to include private assets (Real Estate and Private Equity),
  - ◊ Working on the Investment Accounting Project, which focuses on the general ledger and financial reporting controls of investment activities such as recording derivatives and other complex securities for financial reporting, and
  - ◊ Developing and implementing a full funding plan for the Medicare Premium Payment Program (MPPP).
- Replace or upgrade existing Real Estate Cash Management process taking into account audit recommendations.

Key Success Factors and Challenges

Investment Operations is the middle office, and with dedicated staff, we manage the day-to-day operations and the integrated technology solutions across the Investment office. Our staff has the specialized knowledge, skill and expertise needed to support the Investment Policy and Management Plan, basic investment programs, and initiatives. We leverage technology to a large degree, which allows us to keep overall personnel costs down. Additionally, we leverage and manage strategic partnerships with various vendors and service providers such as State Street Bank, Blackrock, Thompson, and Omgeo.

Keys to our success:

- Due to the complex nature of Investment programs and investments, it is extremely important to have a qualified and experienced professional staff. Therefore, attracting, developing and retaining quality investment professionals are vital to the success of our operation.
- Maintaining effective communication across CalSTRS' enterprise (largely with Human Resources, Legal, Accounting, Contracts, and Enterprise Information Technology) along with external business relationships is critical. As our business evolves, we must also adapt to change and be able to create solutions that best meet the needs of all affected parties while maintaining an effective internal control structure.
- Working with other Investment divisions to assess the risks and develop the processes associated with International Swap & Derivative Association (ISDA) Agreements, infrastructure, and hedge funds has been fundamental to our service.

Potential deterrents to our success:

- The government structure we operate under does not allow for the flexibility or efficiency in hiring applicants directly from private industry. Frequently, staff hired in Investment Operations are soon attracted to front office positions which have higher classifications and salary structures. Investment Operations annual turnover rate is twenty percent; two-thirds of that turnover rate represents internal transfers within the Investments office.
- The uncertainty of the State of California's financial condition places a burden on our ability take on new initiatives and meet daily critical functions with reduced staff.

Conclusion

As CalSTRS' Investment programs evolve, the corresponding operational risks must be managed and mitigated. New complex strategies, initiatives and internal management increases workloads and introduces risks that must be controlled. To contend with these portfolio intricacies and higher transaction volumes requires policies, processes, management tools and knowledgeable professionals that have the financial competencies to perform the work.

Providing support and services to each asset class is our main goal. We strive to incorporate new investment strategies and initiatives into our workflow while managing the day-to-day operational processes. This requires robust prioritization by Investment Management since new investment strategies and initiatives compete for existing resources. Projects require proper controls, documented processes, risk assessments, and effective implementation.

As our use of investment products like infrastructure, commodities, structured products, and derivatives increase, we will look to develop staff competencies that are essential to support our investment programs and the challenges we all face in an increasingly knowledge-based economy. These investments and the blurring of investments between asset classes will make performance reporting more challenging. It will be necessary to develop staff that focus on compliance, performance analysis, measurement and reporting across the portfolio.

Teachers' Retirement Fund Schedule of Advisor & Consultants in effect for the year ended June 30, 2010 and under retainer for the future, 2011-12 Fiscal Year.

2011-2012

Advisors and Consultants

ALTURA CAPITAL GROUP
BARD CONSULTING, LLC
CAPITAL HOTEL MANAGEMENT
COURTLAND PARTNERS, LTD
CREDIT SUISSE
DAVID L. BONUCCELLI & ASSOCIATES, INC.
ENNIS KNUPP & ASSOCIATES, INC.
HOULIHAN LOKEY HOWARD & ZUKIN FINANCIAL ADIVSORS, INC.
INVESTORS DIVERSIFIED REALTY, LLC
KPMG, LLP
NELSON AND BERNSTEIN, LLC
PACIFIC CORPORATE GROUP
PENSION CONSULTING ALLAINCE, INC.
REAL ESTATE FIDUCIARY SERVICES
REAL ESTATE REEARCH CORPORATION
VALUATION RESEARCH CORPORATION