Investment Committee Quarterly Activity Report

as of March 31, 2016 | 7. INNOVATION & RISK

INNOVATION & RISK PROGRAM STATUS

as of 3/31/2016

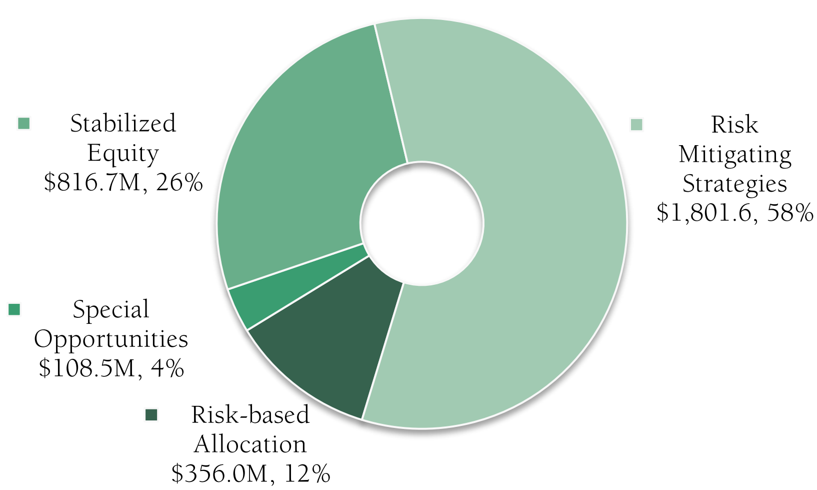
CalSTRS Innovation Portfolio

The aggregate CalSTRS Portfolio is primarily dependent on economic growth for meeting long-term expectations. The Innovation portfolio's objective is to help mitigate this major risk by incubating and graduating new strategies expected to diversify the risk of the total plan while providing attractive real returns over a market cycle. The current agenda of the Innovation team is to incubate four major class-level portfolios:

1. Risk Mitigating Strategies
2. Risk-Based Allocation
3. Stabilized Equity
4. Special Opportunities

All strategies focus on improving the risk and return characteristics of the total fund. Below is a chart showing the quarter-end market value of the unit's incubation investments.

Market Value Innovation Portfolio Allocation (in millions) as of March 31, 2016



Market Value as of 3/31/16	Market Value + Unfunded Commitments
$ 3,082,730,828	$ 3,230,730,828

Table 1 – Innovation Portfolio investment activity (in millions) through March 31, 2016

Program	Strategy	Inception	Funded	Unfunded
Risk Mitigating Strategies	Bridgewater Pure Alpha MM (Global Macro)	12/23/2011	$149	
Risk Mitigating Strategies	Alphadyne International (Global Macro)	6/27/2012	$217	
Risk Mitigating Strategies	MKP Opportunity Fund (Global Macro)	11/1/2012	$241	
Risk Mitigating Strategies	Blackrock FIGA (Global Macro)	3/27/2013	$150	
Risk Mitigating Strategies	Graticule (Global Macro)	2/27/2014	$117	
Risk Mitigating Strategies	Graham Capital (Trend Following)	12/1/2014	$530	
Risk Mitigating Strategies	AQR Managed Futures (Trend Following)	5/1/2015	$344	
Risk-Based Allocation	Blackrock Market Advantage	12/1/2011	$100	
Risk-Based Allocation	AQR Gibraltar	8/1/2013	$100	
Risk-Based Allocation	Invesco Balanced Risk Allocation	9/1/2013	$100	
Special Opportunities	Blackstone Tactical Opportunities	3/21/2014	$102	$148
Stabilized Equity	Analytic Investors (Low Volatility)	11/3/2014	$275	
Stabilized Equity	AQR US Defensive (Low Volatility)	12/11/2014	$275	
Stabilized Equity	Gateway (Covered Call)	1/2/2015	$100	
Stabilized Equity	Parametric Delta Shift (Covered Call)	1/2/2015	$100	
	Total		$2,900	$148

1. RISK MITIGATING STRATEGIES

The risk mitigating strategies program is designed to reduce portfolio volatility by diversifying the global equity exposure of the total plan. The program pursues investment opportunities that could help improve the expected risk-adjusted returns of the total plan and reduce its shortfall risk. The two strategies currently employed by the program are global macro and trend following. Both strategies tend to have negative or low correlation to the total fund and have historically performed well during turbulent equity market regimes.

Global Macro

Global macro strategies rely on top-down economic analysis to drive trade ideas across various asset classes (equities, fixed income, currencies and commodities) and geographies. These strategies are intended to capture inflection points in the market cycle and provide protection in down markets. Five global macro managers are currently responsible for managing approximately $939 million in assets for the program.

Trend Following

Trend following strategies utilize rules-based systems to identify medium- and long-term trends in prices across various asset classes (equities, fixed income, currencies and commodities) and geographies. These strategies are meant to generate returns in both extended bull and bear markets. Two trend following managers are currently responsible for managing approximately $862 million in assets for the program.

2. RISK-BASED ALLOCATION

The current $300 million allocation to the risk-based allocation program is split equally between three managers. These portfolios of market risk premia are constructed with well-diversified, long-only exposures to global liquid asset classes: global equities, global bonds and commodities. The thesis for recommending this strategy for the Innovation portfolio is to provide additional diversification and improve the risk/return profile of the Total Plan. Starting from a position of balanced risk allocation, results in a capital allocation that is not heavily weighted towards any single asset class. Additionally, providing risk factor diversification can help mitigate significant drawdowns during periods of turbulent equity market regimes.

3. INFLATION SENSITIVE

Prior to the Board's approval of a new Inflation Sensitive asset class, staff had been approved for an incubation of a $150 million to long-biased active commodities managers benchmarked to the Bloomberg Commodity Index. Over the past couple of months, staff has been working with the Inflation Sensitive group to transition the responsibility of future research to their asset class. This knowledge transfer has occurred and Innovation will no longer be responsible for incubating the long-biased commodities program. Additionally, any future research on agriculture and timber investments will be conducted by the Inflation Sensitive team. However, in the future staff may expand the scope of research to other real assets, such as gold or energy producers.

4. STABILIZED EQUITY

A $750 million commitment has been made to four systematic low volatility/covered call strategies which may potentially offer a partial solution to maintaining equity exposure with less risk. These low-cost and scalable equity strategies are designed to help mitigate "tail risk" during adverse market conditions and will be part of the stabilized equity program. The stabilized equity program is expected to produce materially higher risk-adjusted returns than standard public equity with similar levels of returns over the long-term. Currently the Innovation staff is working closely with the Global Equities team to evaluate the program for potential graduation to the larger equity portfolio.

Low Volatility Equity

These investment strategies generally seek to over-weight safe securities (lower volatility) and under-weight risky securities (higher volatility). Therefore, the concentration in high-risk stocks, symptomatic of traditional capitalization-weighted approaches, is reduced and losses during adverse markets are expected to be lower. The current allocation of $550 million is split equally between AQR and Analytic Investors. These low volatility equity managers are benchmarked to a CalSTRS custom Russell 1000 HEDI Moderate index.

Covered Call (S&P 500)

Covered call strategies capture equity market beta by holding an underlying passive S&P 500 portfolio, as well as earning income from writing call options on the underlying index fund. The current allocation of $200 million is split equally between Gateway and Parametric. These managers are benchmarked to the CBOE BXM (S&P 500 BuyWrite) and the CBOE BXY (2% OTM S&P BuyWrite) respectively.

5. SPECIAL OPPORTUNITIES

A $250 million commitment has been made to Blackstone Tactical Opportunities, a multi-asset tactical fund. Approximately $103 million has been invested in thirty opportunities sourced from the firm's credit, real estate and private equity teams. The manager continues to consider near-term opportunities in specialty finance, mortgages and commodities. The thesis for recommending this strategy for the Innovation portfolio is to provide exposure to new investments that may be overlooked, provide insight into the relative attractiveness of asset classes and take advantage of short-term market dislocations that have low correlations to the total fund.