Investment Committee
California Public Employees' Retirement System

Agenda Item 5

June 11, 2012

ITEM NAME: Absolute Return Strategies – Equity Beta Overlay

PROGRAM: Absolute Return Strategies

ITEM TYPE: Asset Allocation, Performance & Risk – Action

RECOMMENDATION

Investment Office staff recommends the Investment Committee (IC) maintain the Absolute Return Strategies (ARS) equity beta overlay until further decision is made on the strategic role of the ARS Program and its implications for the Total Fund strategic asset allocation.

EXECUTIVE SUMMARY

This agenda item provides the analysis and recommendation for continuing the ARS equity beta overlay that was approved by the IC in September 2011 (Attachment 1). At that time, the committee requested that staff report back with reconsideration about the beta overlay program at the end of the first year. Staff's recommendation maintains the benefit of the beta overlay in reducing Total Fund tracking error, as well as improves alignment of ownership and reporting for the beta overlay.

BACKGROUND

In September 2011, staff presented three alternative frameworks for allocating capital to the ARS Program. A capital allocation framework was needed because ARS was not designated as a strategic asset class during the 2010 Asset Liability Management Workshop. At that time, the ARS Program did not carry a target allocation and was implicitly funded from the Global Equity (GE) Program. Investing in a program without a target allocation results in tracking error, if the investment has a different exposure than its capital source. Public equity has a beta of 1.0, and the ARS Program has a target beta of 0.2, therefore its returns would deviate from the GE Program, its implicit capital source.

In September 2011, staff recommended keeping the ARS target allocation at zero and equitizing the ARS Program with futures overlay. This beta overlay framework was designed to restore the GE weight to its strategic target to minimize the Total Fund tracking error. Due to its target allocation of zero, the ARS investment would be outside of the strategic policy Benchmark and its alpha would add to alpha of the Total Fund.

Starting in November 2011, equity futures were implemented over four months with notional value based on the market value of ARS investment reduced by the target beta exposure of the ARS program (0.2 target beta).

By February 2012, the ARS Program was fully equitized with approximately $4 Billion in notional value of futures, compared to ARS market value of $5 Billion. The overlay exposure is eighty percent of the ARS market value because ARS itself has a twenty percent exposure to global equity beta. The precision of the beta overlay relies on the ARS Program to manage its inherent beta to the 0.2 target. ARS realized beta has been in the 0.14 to 0.19 range since November 2011.

The beta overlay uses futures to equitize, thus creating leverage at the Total Fund level. Leverage is created because the Total Fund gains greater market exposure than the amount of capital it invests. Currently, the beta overlay is adding approximately 2% leverage to the Total Fund.

Under the ARS equitization framework, three unique sources contribute to the Total Fund's public equity exposure – 1) GE, 2) ARS inherent beta and 3) ARS beta overlay. The objective is to manage the sum of these three beta components to the public equity target allocation, currently at 50%. Any equity over- or under-weight versus the 50% target is a conscious decision to take active risk. ARS does not have a target allocation and is expected to generate alpha for the Total Fund.

ANALYSIS

Based on data since November 2011, the beta overlay strategy was effective in reducing tracking error as it helped to restore the GE weight and reduce deviation from the 50% public equity target allocation. Per attachment 2, the beta overlay program reduced Total Fund tracking error by 15 bps annualized from November 2011 to April 2012.

There are two options for the beta overlay, each with its own benefits and risks.

Option 1: Maintain the beta overlay

Benefits	Risks
• Consistent with current Total Fund strategic allocation weights, thus minimizing Total Fund tracking error versus its Benchmark	• ARS Program realized beta deviates from 0.2 target beta • Additional monitoring and reporting complexity • Opportunity cost of maintaining the cash margin for futures

Option 2: Remove the beta overlay

Benefits	Risks
• Save the cost of maintaining the cash margin for futures • Eliminate additional monthly rebalancing and reporting complexity	• Increase tracking error due to approximately 2% public equity under-weight, which can be fixed with an explicit allocation assigned to the ARS Program in the Total Fund policy Benchmark • Lower arithmetic expected returns

Maintaining the beta overlay will continue to reduce Total Fund tracking error as intended. However, if the realized beta of the ARS Program deviates from the 0.2 target beta, the effectiveness of the beta overlay will be reduced and the Total Fund is exposed to inadvertent equity risk. To mitigate this potential problem, the ARS Program can have a dynamic beta forecast to determine next period's beta overlay exposure.

Removing the beta overlay will eliminate the cash margin requirement associated with derivatives, as well as the additional rebalancing and reporting complexity. However, this option requires an explicit allocation to the ARS Program to avoid a substantial tracking error for the Total Fund. Staff believes such a decision depends on resolution of fundamental questions related to the ARS Program, which would be key priorities for the ARS Senior Portfolio Manager currently under recruitment. These questions were framed at the March 12, 2012 Investment Committee Workshop on Absolute Return Strategies and include the following:

1. The Role of ARS in the Total Fund
2. The Source of Capital for ARS
3. The Size of Allocation
4. The Appropriate Benchmark

Staff's recommendation is to maintain the beta overlay until further proposal is made on the ARS Program's strategic role and allocation. Staff also recommends that the ARS team manage the beta overlay in conjunction with the ARS target beta using a dynamic forecast.

If the IC adopts Option 2, staff recommends an explicit strategic policy allocation to be assigned to the ARS Program in order to minimize Total Fund tracking error.

ATTACHMENTS

Attachment 1 – September 12, 2011 Agenda Item 6
Attachment 2 – Absolute Return Strategies – Equity Beta Overlay Presentation

Attachment 3 – Wilshire's Opinion Letter ARS Overlay

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