# Investment Committee
California Public Employees' Retirement System

## Agenda Item 7a

May 13, 2013

**ITEM NAME:** Proposed Revision of the Total Fund Benchmarks Policy to Reflect Global Fixed Income Benchmark and Inflation Assets Benchmark Changes – Initial Review

**PROGRAM:** Total Fund

**ITEM TYPE:** Policy & Delegation – Information

**EXECUTIVE SUMMARY**
This is the initial review of proposed changes to the California Public Employees' Retirement System (CalPERS) Total Fund Benchmarks Policy (Policy) to reflect changes to two asset class benchmarks: 1) the Global Fixed Income benchmark, and 2) the Inflation Assets benchmark. These changes would:

- broaden the opportunity set,
- reduce the concentration risks in these portfolios, and
- increase CalPERS exposure to countries whose economies are expected to contribute a greater percentage of future global gross domestic product (GDP).

The proposed portfolio benchmark changes are expected to increase the overall volatility of the Total Fund by approximately four basis points. Upon receiving feedback from the Investment Committee, staff will bring the Policy to a subsequent Committee meeting for formal action with a July 1, 2013 target effective date.

**STRATEGIC PLAN**
This item supports the CalPERS Strategic Plan Goal to improve long-term pension and health benefit sustainability. Periodically evaluating and revising program benchmarks enhances staff's ability to achieve CalPERS investment objectives and increase returns.

**BACKGROUND**
**Proposed Change to Global Fixed Income Benchmark**
The Global Fixed Income benchmark (GFI Benchmark) has a 16% weight in the Policy and is comprised of two components:

1. 90% Barclays Long Liabilities (GFI Domestic Benchmark), and
2. 10% Barclays International Fixed Income (GFI International Benchmark)

The proposed change will only impact the GFI International Benchmark, and thus represents a 10% change in the GFI Benchmark and a 1.6% impact on the Policy as shown in Attachment 1, Page 2 of 11.

The table below outlines key differences between the existing and proposed GFI International Benchmarks.

| **Existing GFI International Benchmark - Market capitalization weighted benchmark**<br>*Barclays International Fixed Income benchmark* | |
|---|---|
| **Summary** | A rules-based index in which countries with more index-eligible debt outstanding (on a market value basis) have a higher weight in the index. |
| **Pros** | • Historically perceived to better reflect the "market portfolio" or investable universe of securities. |
| **Cons** | • Tend to over allocate to the most indebted countries instead of the most creditworthy countries, which can incur large losses as demonstrated in the recent European sovereign debt crisis. |
| **Proposed GFI International Benchmark - GDP weighted benchmark**<br>*Barclays International Fixed Income Index GDP weighted ex-U.S.* | |
| **Summary** | An alternative rules-based index which fixes country weights in a benchmark based on related GDP weights instead of total market value of outstanding debt. |
| **Pros** | • Broaden the opportunity set by including investment grade emerging markets, thereby increasing diversification<br>• Avoid over allocation to the most indebted countries |
| **Cons** | • Potentially poses a concern of investability as there may not be sufficient debt issuance available in the countries with less debt as a percentage of their GDP. Staff has reviewed this issue. Based on the current size of the GFI International portfolio, and even if such portfolio tripled in size, the estimated portfolio market share of the proposed country bond markets is very small. Therefore, the adoption of the proposed GDP weighted benchmark would not impact staff's ability to prudently manage the portfolio. |

**Proposed Change to Inflation Assets Benchmark**
The Inflation Assets (IA) benchmark has a 4% weight in the Total Fund Policy Benchmark and is comprised of two components:

1. 75% Inflation Linked Bond (ILB) benchmark, and
2. 25% Commodities benchmark

The proposed change will only impact the international component of the ILB benchmark. The current ILB benchmark is a custom Index blend of 67% Barclays Global Inflation-Linked U.S. (ILB U.S. Benchmark) and 33% Barclays Global Inflation linked United Kingdom, France, Italy, Germany, and Canada only, un-hedged (ILB International Benchmark).

Accordingly, 25% of the IA benchmark will be impacted by this proposed change, and 1% of the Total Fund Policy Benchmark will be impacted by this proposed change as shown in Attachment 1, Page 3 of 11.

| **Existing ILB International Benchmark - market capitalization weighted inflation linked index for five countries only**<br>*Barclays Global Inflation Linked U.K., France, Italy, Germany, and Canada* | |
|---|---|
| **Summary** | Custom benchmark of inflation linked bonds issued by selected countries in Barclays Capital Global Inflation Linked Index based on size and liquidity criteria. Currently only includes five countries. |
| **Pros** | • Simplicity |
| **Cons** | • Highly concentrated portfolio |
| **Proposed ILB International Benchmark – market capitalization weighted inflation linked index for sixteen countries**<br>*Barclays Universal Government Inflation Linked Bond Index ex-U.S.* | |
| **Summary** | Includes sixteen developing and emerging market countries and excludes non-investment grade rated countries and other countries due to tax, regulatory, or other capital controls. |
| **Pros** | • Broaden the opportunity set by including investment grade emerging markets, thereby increasing diversification<br>• Better align the investment process with the proposed GFI International Benchmark |
| **Cons** | • Still a market capitalization weighted index. Staff does not argue for a GDP weighted variant of the inflation linked index as inflation linked bonds tend to be a smaller subset of total government indebtedness. As the issuance of inflation linked bonds grows, it may make sense to consider a GDP weighted inflation linked benchmark in the future. |

**ANALYSIS**

The existing GFI International Benchmark was designed to best reflect the "market portfolio" or investable universe of sovereign securities from which to choose. The existing ILB International Benchmark limited the universe to only developed countries. The benchmarks have accomplished their goals. However, as was demonstrated in the European sovereign debt crisis beginning in 2009, market capitalization weighted sovereign benchmarks over allocate to the most indebted countries as opposed to the most creditworthy. The proposed changes address this issue by broadening the opportunity set to include countries whose economies are expected to contribute a greater percentage of future global GDP.

In contrast to market capitalization benchmarks for equities which reward success (i.e., higher equity market capitalizations are tied to higher economic growth), the opposite is potentially true for fixed income benchmarks (i.e. rewarding "profligacy") and especially true for those where the underlying debts are sovereigns rather than corporates. The reason this risk is higher for sovereigns issuing in their own currencies is their capacity to monetize, or "inflate away," their debts. In contrast, corporate issuers are subject to a different and stricter form of market discipline because they cannot similarly inflate away their debts. Moreover, sovereign benchmarks tend to be inherently more concentrated as there is a smaller universe of potential issuers (i.e., 35 in our proposed and 31 in the existing benchmark) versus corporate indices which usually have hundreds of issuers. For example, there are over 800 in CalPERS investment grade corporate benchmark.

**BENEFIT/RISKS**

Adopting the proposed benchmark changes would significantly reduce the concentration risks, and therefore reduce the potential impact to CalPERS if any one country were to default. The largest exposure to any one country falls from 42% exposure to Japan in the existing GFI International Benchmark to 18% in the proposed GFI International Benchmark. Japan, in particular, has grown debt quickly and if it were to have trouble refinancing its debt, it could have a significant potential negative impact on the existing GFI International portfolio. This risk is reduced by moving to the proposed GFI International Benchmark. Similarly, the largest exposure to any one country falls from 51% in existing ILB International Benchmark to 39% in the proposed ILB International Benchmark.

The proposed benchmarks have historically had a higher return than the existing benchmarks (see Attachment 1). Based on current yields, the proposed benchmarks are expected to improve the cash flow yield and reduce the interest rate exposure of the Total Fund.

The risk of the proposed benchmark is that they have historically had higher volatility than the existing benchmarks (see Attachment 1). CalPERS risk model estimates that the Total Fund volatility will increase by four basis points. Correlation of the proposed benchmarks to the Total Fund has also been higher historically.

**ATTACHMENTS**

Attachment 1 – Current and Proposed GFI and IA Benchmarks, Returns, Volatility and Impact on the Total Fund Policy Benchmark
Attachment 2 – Total Fund Benchmarks Policy with Proposed Revisions
Attachment 3 – Consultant Opinion Letter

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