

MEMORANDUM

TO: Board of Trustees, CalSTRS
FROM: Stephen McCourt, Allan Emkin, Stephanie Sorg, Meketa Investment Group
CC: Cassandra Lichnock
DATE: January 25, 2023
RE: Total Fund Policy Benchmark Project

Background

At the September 2021 Board meeting, the Board requested that Meketa present an overview of investment benchmarks, including suggestions and recommendations pertaining to the Total Fund benchmark. From September 2021 through January 2022, Meketa conducted a Board survey, one-on-one Board member interviews, and a peer survey with 13 of the largest US public pension plans. The surveys/interviews addressed general benchmarking practices among peers, areas of concern among CalSTRS Board members, and the role of benchmarks at CalSTRS. At the January 2022 Board meeting, we presented our observations and recommended next steps to the Board.

The Chair established a Benchmarking Working Group consisting of two Board members, CalSTRS' HR staff, CalSTRS' compensation and investment consultants, and CalSTRS' legal Staff. Collaborating with the Working Group, Meketa will be assisting the Board through a discussion of the major issues surrounding benchmarking. This agenda item, and the Board's discussion surrounding it, is intended to be **exclusively on benchmarking** CalSTRS' investment performance (risk and return). The purpose of this item is to continue the Board's discussion from the January 2022 meeting and to provide the Board with a framework for discussing potential options to simplify the Total Fund benchmark. The role of benchmarks in determining incentive compensation will be addressed by the Board at a later date.

Board Survey and Interviews

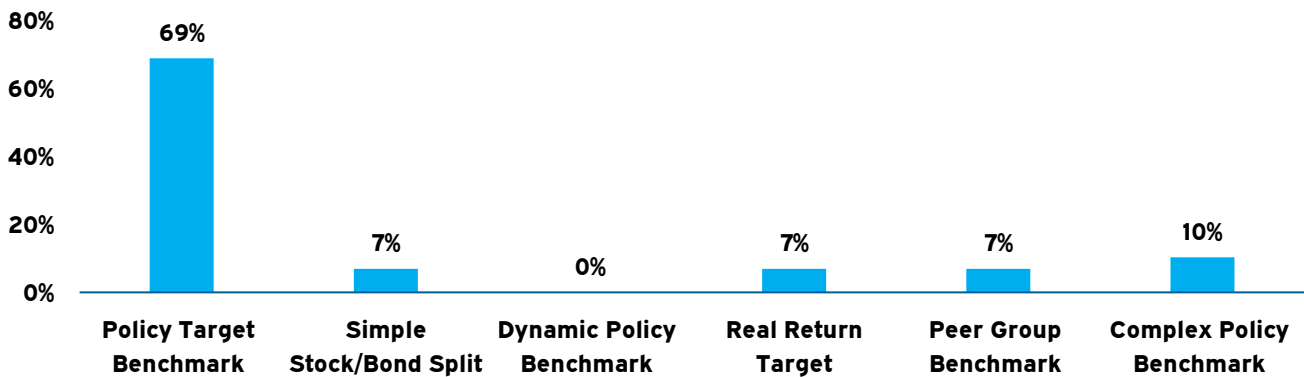
Through a Board survey and interviews in late 2021, the Board expressed several areas of consensus related to benchmarking CalSTRS' performance. They include:

- The Total Fund benchmark should be more simple and more transparent.
- Benchmarks should be reviewed when asset allocation is assessed.
- the Board should only be involved in approving the benchmarks for the Total Fund (not at the sub-asset class level) and those that impact incentive compensation.
- The Total Fund Benchmark should be aligned with the Plan's long-term objectives.

Against the backdrop of these consensus items, Meketa highlighted the breadth & depth of the current Total Fund benchmark and acknowledged that, compared to peers, CalSTRS has one of the more

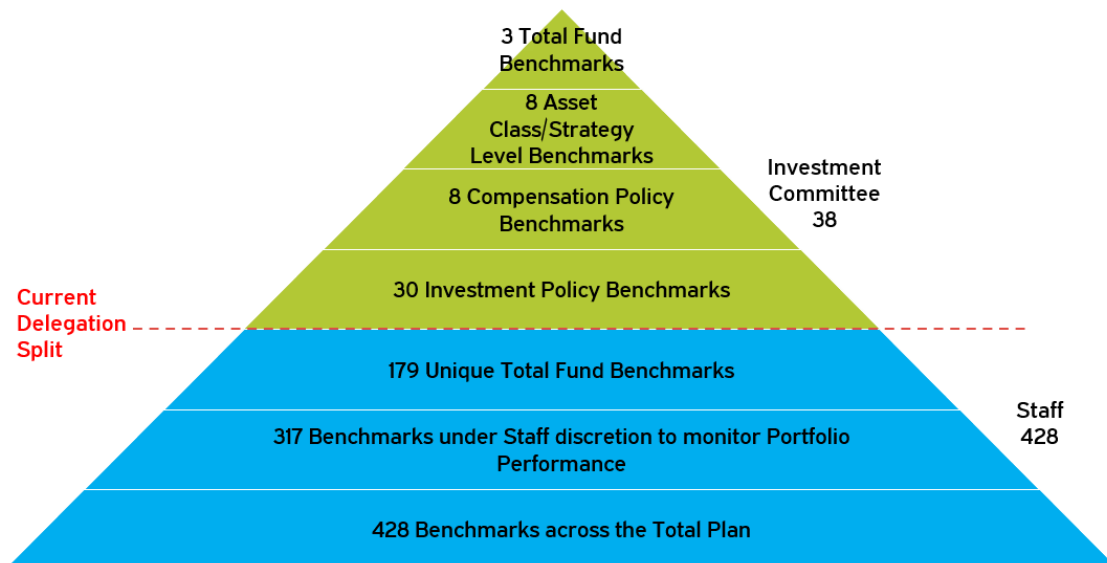
complex structures, as it consists of a roll-up of asset class benchmarks that, in turn, consist of roll-ups of sub-asset class benchmarks (including thousands of pieces of information).

In an industry analysis conducted by Meketa covering 25 Total Fund benchmarks of the largest US public pension systems, we found that a majority (69%) of the systems utilize a “policy target benchmark.” These benchmarks consist of roughly 3-15 major and/or sub-asset class indexes and are calculated using a weighted average of the index components and the respective policy allocation weights. A small minority (10%) of the Funds (including CalSTRS) employ a complex policy benchmark. The definition of complexity varies, but consists of benchmarks beyond the asset class level, and/or a combination of static and dynamic (asset-weighted) weights.



Benchmarking at CalSTRS

CalSTRS maintains a large ecosystem of benchmarks that serve a variety of purposes. The pyramid below highlights the current structure of this benchmarking design, and highlights where the Investment Committee is currently involved in determining benchmark selection.



Part of the Board's feedback during this process was to focus the Board's involvement in benchmarks to only selecting the Total Fund benchmarks. Currently, there are three:

- Policy Benchmark Index - This measure is used for performance attribution and risk measurement. It is developed by taking each of the respective asset classes' custom benchmarks weighted by the policy target asset allocation at the end of the specific time period. Almost all of the asset class benchmarks are customized to reflect CalSTRS' policies and are not publicly available.
- Reference Portfolio Index - The reference portfolio is the Morningstar Moderate Target Risk index, which is designed to help measure Target date mutual funds with a long investment horizon and risk level very similar to that of the CalSTRS total fund. This measure is designed to allow members and the public to compare the CalSTRS total fund Investment performance to a similar risk level portfolio they could utilize within the personal retirement accounts.
- Incentive Compensation Index - This measure is used for incentive compensation purposes. In composition and calculation, this index is currently identical to the Policy Benchmark Index, but for a short period of time differed slightly in composition. Although separate indexes became effective July 2017, the returns for the Policy Benchmark and Incentive Compensation Benchmark are currently identical since the different index history is now beyond the three-year incentive measurement period.

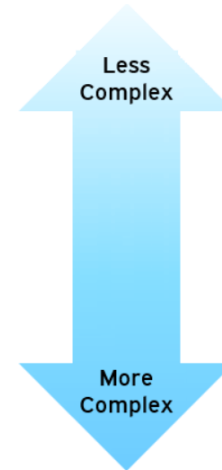
Much of the discussion around the CalSTRS' Total Fund benchmark has related to the Policy Benchmark Index, as this is the one that is primarily used in reporting and in Total Fund incentive compensation.

Note that those benchmarks that would no longer be determined by the Investment Committee would fall under Staff authority. One result of this benchmarking review process will clarify which of benchmarks adopted by the staff that will require the approval of the Board's investment consultants.

Total Fund Benchmarking Options

At the Board's request and based on our review of existing practices across the industry, Meketa has composed a framework that defines four potential benchmarking options for the Total Fund. They range from a simplistic approach (stock/bond split) to the most complex structure (CalSTRS' current Total Fund Benchmark). The number of underlying benchmark components increase as the options move from simple to complex.

1. **Stock / Bond Split**
 - 2 Underlying Benchmark Components
2. **Major Asset Class Policy Targets**
 - 7 Underlying Benchmark Components
3. **Sub-Asset Class Policy Targets**
 - 17 Underlying Benchmark Components
4. **Complex Policy Benchmark (CalSTRS Current Benchmark)**



To assist in the Board’s discussions, Meketa has provided our “Total Fund Benchmarking” white paper that was published in October 2022. This paper explores the various trends and challenges in total plan benchmarking practices among large institutional portfolios. Key takeaways from the research included:

- Benchmarking is more of an art than a science. There is no single “right way” to evaluate performance.
- It is common to have multiple benchmarks at the Total Plan level, as various benchmarks/compositions express different things about performance and serve as guideposts for multiple objectives.
- The composition of a benchmark should be understandable internally and externally, and the role should be clear. Consistent oversight and effective utilization are crucial components of successful benchmarking.

In deciding which benchmarking option to pursue, there exists a trade-off between simple and transparent benchmarks (e.g., a stock/bond split) and more precise benchmarks (e.g., the current benchmark). For example, a simple stock/bond mix would be easy to understand and communicate, but the Total Fund’s return would be quite different than this benchmark on a year-to-year basis (due in part to CalSTRS’ investments in asset classes outside of traditional stocks and bonds). The current complex Benchmark more closely matches CalSTRS’ execution of its strategy and, therefore, more closely tracks CalSTRS’ actual returns on a year-to-year basis. But it is complicated, customized, somewhat opaque, and very detailed.

After receiving feedback from the Board, Meketa will bring back to the Board at its next meeting several potential benchmark indexes, pros and cons of each, and back testing results of each in relation to CalSTRS’ actual returns.

If you have any questions, please feel free to contact us at (760) 795-3450.

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