



Dale R. Folwell, CPA

INVESTMENT MANAGEMENT

KEVIN SIGRIST
CHIEF INVESTMENT OFFICER

To: Supplemental Retirement Board of Trustees

From: Kevin SigRist, Chief Investment Officer
Loren de Mey, Assistant Investment Director

Date: May 10, 2017

Subject: Discussion/Action: Plan Design Recommendation

Recommendation

The Board has expressed a desire to simplify the number of actively managed white-label participant U.S. equity options, but to continue to provide an actively managed U.S. Large Cap and Small / Mid Cap equity core options. To that end, Department of State Treasurer Staff ("DST") and Mercer Investment Consultants ("Mercer") recommend eliminating the Large Cap Value Fund and Large Cap Growth Fund white-label participant options and consolidating both options into one white-label participant option, the North Carolina U.S. Large Cap Active Core Fund. Similarly, DST and Mercer recommend eliminating the Small / Mid Cap Value and Small / Mid Cap Growth Fund white-label participant options and consolidating into one white-label participant option, the North Carolina U.S. Small / Mid Cap Active Core Fund. Based on DST negotiations conducted to date, we believe that the new options could be delivered at significantly lower fees to participants.

U.S. Large Cap Active Core Fund

DST and Mercer believe that there is strong evidence that U.S. large cap equity market is highly efficient due to extensive analyst coverage, broad institutional ownership, and low trading costs. Within the various available actively managed strategies that target this segment of the U.S. equity market, DST and Mercer believe that investment managers that utilize more concentrated portfolio strategies (i.e., with higher tracking error mandates) offer a relatively better opportunity to outperform broad market or style benchmarks net of fees and transactions costs. Therefore, DST and Mercer prioritized an evaluation of the Plan's current U.S. large cap equity investment managers to determine which managers have the highest active share (a measure of the percentage of a manager's stock holdings that differs from the benchmark).

DST and Mercer also evaluated the current U.S. large cap investment managers' excess return correlations with one another. In addition to the returns based analysis, we focused on each manager's investment style through holdings-based analysis, which utilizes the underlying manager holdings to better understand which factors are drivers of portfolios (value, growth, momentum, quality, market capitalization). Mercer ran various return and style-based scenarios comparing possible variations of the U.S. Large Cap Active Core Fund. Ultimately, DST and Mercer determined that a fund with a consolidated number of investment managers - those with historically higher active share - would be the most favorable. Additionally, given the efficiency of the U.S. large cap equity market, DST and Mercer recommend adding a 25% passive allocation to the proposed North Carolina U.S. Large Cap Active Core



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Fund. Adding a passive allocation to this fund will lower overall fees, function as a liquidity sleeve to help in the quarterly rebalancing process, and mitigate the risk of underperformance of investment managers in a highly efficient market segment. The liquidity management aspect of this new design is material as it will allow the investment managers to hold less cash and be more fully invested over a market cycle. DST and Mercer will bring a final proposal to the Board in June regarding manager recommendations and terminations specific to the U.S. Large Cap Active Core Fund.

It is important for the Board to understand that this specific DST and Mercer recommendation is contingent on the Board acknowledging:

1. A desire to provide both passive/indexed and actively
2. managed options in major capital market segments in order to enhance eligible employee deferral rates and plan election rates.
3. U.S. active large cap equity investment managers have a lower probability of exceeding market benchmarks net of fees, due to the high efficiency of these markets, but achieving success over the long-term requires a tolerance by the Board for investment manager relative underperformance for periods up to and potentially exceeding three years.
4. Several of the existing high active share investment manager mandates that are contemplated for the recommended new option have been terminated within the North Carolina Retirement Systems due to a DST view that U.S. large cap active strategies are unlikely to provide sufficient value for their associated fees over the next three years relative to passive alternatives.

U.S. Small / Mid Cap Active Core Fund

With the U.S. Small / Mid Cap option evaluation, DST and Mercer reviewed the potential opportunity for investment managers to outperform benchmarks over market cycles. Unlike U.S. large cap equity mandates, DST and Mercer believe that the smaller capitalization portion of the U.S. equity market tends to offer more opportunities for benchmark beating performance net of fees given the more limited analyst coverage, higher volatility, and higher transaction costs. There are currently three value-oriented Small / Mid cap managers and two Small / Mid cap growth-oriented managers in the Plans. Given there are a greater number of value-oriented managers, DST and Mercer recommend weighting the value and growth managers appropriately in order to avoid a value bias in the new active Core option. We again reviewed the investment managers' active share, excess return correlations, and holdings based style analysis. Given that the U.S. Small / Mid cap markets tend to be less efficient compared to U.S. large cap equity markets, DST and Mercer are recommending only a small liquidity buffer of 5% to manage participant cash flows and to allow managers to be fully invested. DST and Mercer will continue to review the Small / Mid portfolio for potential refinements to the fund and possible changes to manager guidelines to better align the portfolio characteristics of the fund with the benchmark.

Implementation

Pending Board approval in June, DST is targeting an implementation date of September 29, 2017 (last business day of the third quarter) for consolidating the Funds.

Manager Fee Negotiations

DST conducted joint SRP and North Carolina Retirement Systems fee negotiations with the current investment managers within the U.S. Large Cap and U.S. Small / Mid Cap portfolios, which resulted in lowering the investment management fees across a majority of the separate accounts.



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Overall fees in the new recommended U.S. Large Cap Active Core Fund (which includes a 25% allocation to a Russell 1000 Index Fund), are estimated to be 0.286%, pending final fee negotiations. This compares to the current investment management fees on the Large Cap Value Fund of 0.378% and the Large Cap Growth Fund of 0.422%.

The investment management fees on the U.S. Small / Mid Cap Active Core Fund are estimated to be 0.53%, pending final fee negotiations. This compares to the current investment management fees of 0.609% on the Small / Mid Value Fund and 0.664% on the Small / Mid Growth Fund.

Recommended GoalMaker Allocation Changes

Given the recommended consolidations to the Large and Small / Mid Cap portfolios, staff is recommending the following changes to the GoalMaker allocations. Currently the allocations are equally weighted to Large Cap Value and Large Cap Growth funds. Similarly, the allocations are equally weighted to the Small / Mid Cap Value and Small / Mid Cap Growth Funds. With the recommendation to consolidate to Core options for both Large Cap and Small/Mid Cap, the recommended GoalMaker allocation change simply sums the current allocations to the Value and Growth Funds to obtain the new recommended allocation to the Core Funds. See the recommended changes to the GoalMaker allocations in the Tables on the following pages.



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Recommended Changes to GoalMaker Allocations

Conservative Model Allocation

The objective of the Conservative Model Allocation is to achieve long-term growth in excess of inflation with a minimal risk of capital loss over a full market cycle.

Conservative	C01	C02	C03	C04
	0-5 Yrs	6-10 Yrs	11-15 Yrs	16+ Yrs
Large Cap Value	1%	2%	3%	3%
Large Cap Index	4%	4%	7%	8%
Large Cap Growth	1%	2%	3%	3%
Large Cap	2%	4%	6%	6%
Small / Mid Cap Value	2%	3%	5%	7%
Small / Mid Cap Index	0%	0%	0%	0%
Small / Mid Cap Growth	2%	3%	5%	7%
<u>Small / Mid Cap</u>	<u>4%</u>	<u>6%</u>	<u>10%</u>	<u>14%</u>
Global	6%	10%	15%	23%
International	3%	5%	7%	11%
International Index	0%	0%	0%	0%
Fixed Income	16%	14%	12%	10%
Fixed Income Index	17%	14%	13%	10%
Stable Value	40%	35%	22%	10%
Inflation Sensitive	8%	8%	8%	8%



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Moderate Model Allocation

The objective of the Moderate Model Allocation is moderate growth of principal with limited downside risk over a market cycle.

Moderate	M01	M02	M03	M04
	0-5 Yrs	6-10 Yrs	11-15 Yrs	16+ Yrs
Large Cap Value	2%	3%	4%	5%
Large Cap Index	5%	7%	7%	10%
Large Cap Growth	2%	3%	4%	5%
<u>Large Cap</u>	<u>4%</u>	<u>6%</u>	<u>8%</u>	<u>10%</u>
Small / Mid Cap Value	4%	5%	7%	10%
Small / Mid Cap Index	0%	0%	0%	0%
Small / Mid Cap Growth	4%	5%	7%	10%
<u>Small Cap</u>	<u>8%</u>	<u>10%</u>	<u>14%</u>	<u>20%</u>
Global	11%	15%	19%	25%
International	6%	7%	9%	12%
International Index	0%	0%	0%	0%
Fixed Income	13%	12%	10%	4%
Fixed Income Index	13%	13%	10%	5%
Stable Value	31%	21%	14%	5%
Inflation Sensitive	9%	9%	9%	9%



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Aggressive Model Allocation

The primary investment objective of the Aggressive Model Allocation is to maximize growth of principal over the long term with a reasonable level of overall volatility.

Aggressive	A01	A02	A03	A04
	0-5 Yrs	6-10 Yrs	11-15 Yrs	16+ Yrs
Large Cap Value	3%	4%	5%	6%
Large Cap Index	7%	7%	8%	11%
Large Cap Growth	3%	4%	5%	6%
<u>Large Cap</u>	<u>6%</u>	<u>8%</u>	<u>10%</u>	<u>12%</u>
Small / Mid Cap Value	6%	7%	9%	11%
Small / Mid Cap Index	0%	0%	0%	0%
Small / Mid Cap Growth	6%	7%	9%	11%
<u>Small / Mid Cap</u>	<u>12%</u>	<u>14%</u>	<u>18%</u>	<u>22%</u>
Global	16%	19%	24%	30%
International	8%	9%	12%	15%
International Index	0%	0%	0%	0%
Fixed Income	12%	10%	5%	0%
Fixed Income Index	12%	10%	6%	0%
Stable Value	17%	13%	7%	0%
Inflation Sensitive	10%	10%	10%	10%