

MEMO

то: NCRS Investment Committee

DATE: May 19, 2014

FROM: Jay Love, Kelly Henson subject: Large Cap Growth Manager

Mercer prepared a short-list of suitable large cap growth investment managers based on the outcomes of our extensive manager research process, and incorporating NC's specific criteria.

The primary objective of this search is to identify a candidate that will enhance the expected return of the Large Cap Growth fund while also being complimentary and diversifying the existing managers, Sands and Wellington. Both Sands and Wellington are strongly growth biased managers who outperform in up markets and underperform in down markets. Therefore the preferred candidate will balance out this aggressive exposure by doing well in down markets while having a core biased growth process and philosophy.

We focused on a few key statistics in determining which mangers fit well in the NC SRP Large Cap Growth fund. One of the key characteristics for measuring down market performance is **Downside Capture**, which is the percentage of the market's negative performance that the manager also produces. The Downside Capture number should be less than 100% for a defensive type of manager. The **beta** of a portfolio is also indicative of its upside downside performance, with a lower beta (less than 1.0) indicating better expected down market performance. In terms of **style exposure**, we can measure the strength of the portfolio bias toward growth by looking at portfolio holdings or by analyzing past performance. We will show both approaches and will generally plot the portfolios on a chart where a point farther to the right is more growth biased. The existing managers will be to the far right, while the desired candidate for this search will be closer to the center.

Mercer believes that, given equal skill, the highest long term returns will be generated by managers that create portfolios containing only their best ideas and which are significantly different from their benchmark. Because this concentrated type of portfolio is so different from the benchmark, they are generally risky and volatile relative to the benchmark. Because the Large Cap Growth fund has three managers to provide diversification, it is possible to combine concentrated managers but still have a portfolio that is not high risk relative to the benchmark. One of the key characteristics to measure portfolio concentration is **active share**, which is the percentage of the portfolio that is different from the benchmark. A high active share for a large cap growth portfolio should be above 80%.

The primary measure of whether two managers are complimentary to each other is their excess return correlation. This measures how frequently the managers have outperformed and underperformed at the same time. A correlation of 1.0 means they always outperform and



underperform at the same time, while -1.0 is the opposite. For this search, an excess return correlation of less than 0.0 indicates a complimentary fit.

Mercer screened over 440 large cap growth managers in our database for suitable candidates based on these criteria and objectives. We reviewed 20 strategies in depth and identified five managers that fit the requirements of this placement. These candidates were profiled, along with Neuberger Berman, in a report for the Investment Sub-Committee. Mercer recommended to the Sub-Committee that Loomis Sayles be selected to replace Neuberger Berman. The Sub-Committee voted to recommend hiring Loomis Sayles and terminating Neuberger Berman.

Below are some of the key statistics on the Loomis Large Cap Growth strategy.

	Downside Capture	I Beta I I		Active Share	Excess Return Correlation		
Loomis	83%	0.94	28	81	-0.25 w/Sands	-0.26 w/Wellington	

Firm	Year firm founded	Ownership	Firm Assets (\$m)	Strategy Assets (\$m)	Total Investment Professionals	Strategy Investment Professionals	Portfolio Manager Name(s)
Loomis	1926	NATIXIS Asset Management North America	199,507	8,030	267	24	Aziz Hamzaogullari

On June 6th an on-site due diligence visit is planned with representatives from the Department of State Treasurer and Mercer Investment Consulting. Findings of this review will be shared at the June 12th Board meeting.