



LARGE CAP GROWTH REVIEW

North Carolina Supplemental Retirement Plans

April 2014

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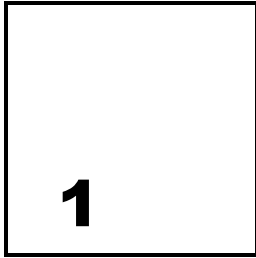
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Candidates



Facts and figures

Candidates

We have prepared a short-list of suitable investment managers based on the outcomes of our extensive manager research process, and incorporating your 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 focus on a few key statistics in determining which managers 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.

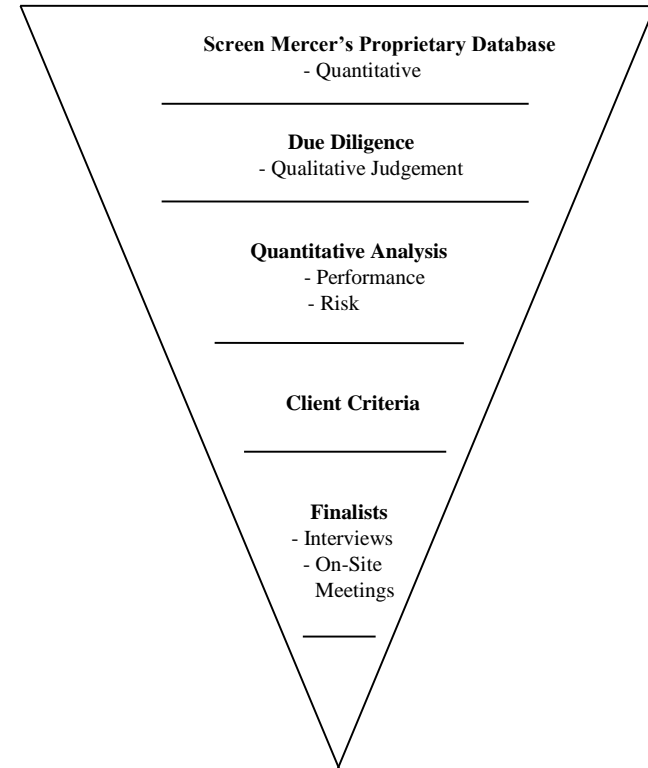
Mercer believes that, given equal skill, the highest long term returns will be generated by managers that create portfolios containing only their best ideas and which are significantly different from their benchmark. Because this concentrated type of portfolio is so different from the benchmark, they 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.

Candidates

We have included an analysis of the following managers:

- DSM Capital Partners (DSM)
- HS Management Partners (HS)
- Loomis Sayles & Company (Loomis)
- Neuberger Berman (NB)
- Polen Capital Management (Polen)
- Waddell & Reed Asset Management Group (Waddell)



Candidates

Rank ¹	Firm	Advantages	Disadvantages
Current Manager	Neuberger	1) Low correlation with existing LCG managers 2) Low beta (0.77)	1) Team turnover and structural changes have contributed to poor recent performance 2) Lowest active share
1	Loomis	1) Low beta (0.94) and strong downside capture (83%) 2) Concentrated portfolio with 28 holdings 3) Past risk adjusted performance has been strong 4) Excess returns have low correlation with existing LCG managers	1) The team plans to launch a global strategy which may impact its research bandwidth.
2	HS	1) Concentrated portfolio (26) with high active share (86%) and a low beta (0.84) 2) Strong long-term and risk adjusted performance 3) Lowest correlation with existing LCG managers of candidates included.	1) Large overweight to the consumer discretionary sector. This allocation combined with the existing LCG managers, would violate the NC sector guidelines 2) Only have 6 year history for the strategy 3) Large Cap Growth is the firm's only strategy
3	Waddell	1) High active share (86%) 2) Strong long-term performance 3) Low excess return correlation with Sands	1) Highest beta (1.24) 2) Has the highest correlation with Wellington (0.39) 3) High downside capture (101%)
4	DSM	1) High active share (87%) 2) Past performance has been very strong	1) Excess returns positively correlated with existing LCG managers 2) High downside capture (102%)

¹ Candidate rankings reflect Mercer's opinion after research and analysis of the options within the Large Cap Growth Fund.

Candidates

Rank ¹	Firm	Advantages	Disadvantages
5	Polen	<ul style="list-style-type: none"> 1) Low historical beta (0.82) and excess returns are negatively correlated with existing LCG managers 2) Good downside capture (80%) 	<ul style="list-style-type: none"> 1) Recent performance has been very poor 2) This strategy accounts for the firm's entire AUM

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Candidates

Firm	Year firm founded	Office location(s) in United States	Type of firm	Ownership /Affiliation
DSM	2001	Mount Kisco, NY	Independent investment firm	Other 42% Stephen Memishian 29% Daniel Strickberger 29%
HS	2007	New York, NY	Independent investment firm	Other ² 100%
Loomis	1926	Boston, MA	Independent investment firm	NATIXIS Asset Management North America 100%
NB	1939	New York, NY	Independent investment firm	Neuberger Berman 90% Other 10%
Polen ³	1979	Boca Raton, FL	Independent investment firm	Key Employees 51% Polen Family Trusts 49%
Waddell	1972	Overland Park, KS	Independent investment firm	Waddell & Reed Financial, Inc. 100%

² The Firm's four founding partners (Harry Segalas, David Altman, Greg Nejme and Bart Buxbaum) and all current active employees own 100% of the business.

Firm-wide and Strategy assets

Firm	As of 31 December 2013								
	Firm-wide assets (\$m)	Firm-wide United States assets (\$m)	Firm-wide Tax-Exempt Public / Government assets (\$m)	Strategy assets (\$m)	Number of clients	Accounts gained		Accounts lost	
						Number	(\$m)	Number	(\$m)
DSM	5,316	3,774	117	4,661	201	39	411	50	466
HS	2,392	2,392	N/A	2,392	102	54	1,105	5	244
Loomis	199,507	148,977	20,609	8,030	48	21	3,283	1	9
NB	241,715	183,310	N/A	6,812	410	29	1,253	67	3,727
Polen	5,013	5,013	1,093	4,987	627	701	4,287	430	1,494
Waddell	15,423	12,175	1,058	3,727	33	10	730	0	0

Personnel

Firm	As of 31 December 2013		Portfolio Manager Name(s)	Year joined firm
	Total investment professionals	Investment professionals in strategy		
DSM	23	10	Stephen E. Memishian Daniel B. Strickberger	2001 2001
HS	14	6	Harry Segalas	2007
Loomis	267	24	Aziz Hamzaogullari	2010
NB	896	6	John J. Barker	1994
			Daniel H. Rosenblatt	1990
Polen	6	6	Damon A. Ficklin	2003
			Daniel Davidowitz	2005
Waddell	135	30	Erik R. Becker, CFA	1999
			Gus C. Zinn, CFA	1998

Style portfolio sector weights

Firm⁴	Market beta	Price to Earnings	Price to Book	Price to Cashflow	Sales to Price	Dividend yield (%)	Earnings growth	Sales growth	Return on equity	Debt / Equity (%)	Market cap (m)
DSM	0.96	28.4	5.70	19.3	21.68	0.55	24.0	20.83	27.4	41.3	62,547
HS	0.84	18.0	4.78	12.9	41.00	1.45	14.3	13.91	26.2	39.9	114,545
Loomis	0.94	23.5	4.79	17.0	29.04	1.09	7.7	14.30	18.3	50.1	113,285
NB	0.77	21.4	4.24	12.9	44.57	1.34	23.9	12.96	23.6	75.2	118,338
Polen	0.82	19.7	5.32	16.1	26.12	1.13	18.0	15.82	29.4	18.5	107,346
Waddell	1.24	20.8	3.10	14.4	50.76	1.02	22.2	9.35	16.9	78.5	61,051
RU1000G	0.90	20.5	5.40	13.9	46.19	1.31	16.4	13.58	26.4	91.3	97,439

⁴ Please see the Appendix for complete descriptions of style terms.

Style portfolio sector weights

Firm ⁵	Energy (%)	Materials (%)	Industrials (%)	Cons Disc (%)	Cons Staples (%)	Health Care (%)	Financials (%)	Info Tech (%)	Telecom Services (%)	Utilities (%)
DSM	0	8.8	2.6	31.2	5.9	20.2	6.7	24.7	0	0
HS	0	0	0	53.1	18.6	0	1.0	27.3	0	0
Loomis	3.5	0	8.0	12.0	8.5	12.2	10.2	45.7	0	0
NB	5.3	5.6	13.7	14.5	14.9	11.7	4.4	23.4	4.4	2.1
Polen	0	0	5.5	14.4	0	13.1	6.8	60.2	0	0
Waddell	7.3	5.2	16.6	25.3	9.1	9.9	10.5	16.1	0	0
RU1000G	4.4	4.5	12.4	19.9	11.9	12.2	5.4	27.1	2.0	0.2

⁵ Please see the Appendix for complete descriptions of style terms.

Style portfolio details vs. the Russell 1000 Growth Index

Firm	North America (%)	UK (%)	Europe ex UK (Developed) (%)	Other Developed Markets (%)	Asian Emerging Markets (%)	Latin American Emerging Markets (%)	Other Emerging Markets (%)
DSM	92.6	0.0	2.1	0.0	5.3	0.0	0.0
HS	85.9	4.3	9.8	0.0	0.0	0.0	0.0
Loomis	100	0.0	0.0	0.0	0.0	0.0	0.0
NB	93.5	0.0	5.2	0.0	0.0	0.0	1.3
Polen	100	0.0	0.0	0.0	0.0	0.0	0.0
Waddell	94.1	2.3	3.6	0.0	0.0	0.0	0.0
RU1000G	99.7	0.0	0.2	0.1	0.0	0.1	0.0

Style portfolio details vs. the Russell 1000 Growth Index

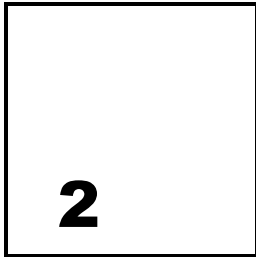
Firm	No. of stocks	Active Share (%)	Predicted tracking error	Value score	Growth score	% Cash	Non-US Exposure ⁶
DSM	29	87	6.3	-2.2	1.4	0.7	7.4
HS	26	86	5.1	0.4	-0.6	1.5	16.1
Loomis	28	81	4.5	-1.0	-0.4	0.0	0.0
NB	58	67	3.5	0.4	0.1	3.3	6.5
Polen	21	83	5.1	-1.0	0.1	5.8	0.0
Waddell	47	86	6.5	0.4	-0.4	2.5	5.9

⁶ Non-US Exposure Breakdown: DSM: 2.1% Europe ex-UK and 5.3% Asian EM; HS 4.3% UK, 9.8% Europe ex UK; NB: 5.2% Europe ex UK, 1.3% Other EM; Waddell: 2.3% UK, 3.6% Europe Ex-UK.

Fee information

Firm⁷	Vehicle type	Stated fee schedule(\$)	Fee on \$250m account (bp/\$)	Fee on \$275m account (bp/\$)	Fee on \$300m account (bp/\$)	Minimum fee (\$)	Negotiate fees?	Offer performance based fee
DSM	Segregated	1% on the first \$5m 0.75% on the next \$15m 0.625% on the next \$80m 0.5% on the balance	57/ 1,412,500	56/ 1,537,500	55/ 1,662,500	None	Yes	Yes
HS	Segregated	0.55% on the first \$100m 0.50% on the balance	52/ 1,300,000	52/ 1,425,000	52/ 1,550,000	None	No	No
Loomis	Segregated	0.575% on the first \$20m 0.5% on the next \$30m 0.45% on the next \$50m 0.4% on the next \$100m 0.35% on the balance	43/ 1,065,000	42/ 1,152,500	41/ 1,240,000	115,000	No	No
NB	Segregated	0.65% on the first \$35m 0.4% on the next \$65m 0.3% on the next \$100m 0.25% on the balance	37/ 912,500	35/ 975,000	35/ 1,037,500	None	Yes	No
Polen	Segregated	0.55% on the balance	55/ 1,375,000	55/ 1,512,500	55/ 1,650,000	None	Yes	No
Waddell	Segregated	0.45% on the first \$100m 0.40% on the next \$100m 0.35% on the balance	41/ 1,025,000	40/ 1,125,000	40/ 1,200,000	90,000	Yes	Yes

⁷ Please see the Appendix for complete descriptions of style terms.



Manager profiles

Manager profiles

DSM Capital Partners - DSM Large Cap Growth Equity

Firm Background and History: DSM Capital Partners, a Delaware LLC, was founded by Daniel Strickberger and Stephen Memishian in 2001; however, Memishian and Strickberger had managed client assets in a large cap growth strategy at W.P. Stewart & Co. from 1991 through 2000. DSM is an SEC registered investment advisor offering separately managed accounts as well as certain pooled investment vehicles to both individuals and institutional investors.

Key Decision Makers: Steve Memishian and Daniel Strickberger are co-CIOs, founders of DSM, and senior portfolio managers. The men are supported by a team of portfolio manager/analysts who have specific areas of industry coverage. A minimum of two investment professionals, including at least Memishian or Strickberger and the sponsoring portfolio manager/analyst, need to be in agreement to initiate a position. The team also manages a SMID Cap Growth, Focus, and Global Equity strategy.

Investment Style/Philosophy: DSM believes concentrated strategies of quality growth companies with predictable earnings streams generate attractive rates of return over time when purchased at rational prices. An application of this philosophy is that DSM focuses on companies that exhibit projected revenue and earnings growth in excess of 10% and that also have high returns on equity and assets.

Investment Process: While analysts screen growth ideas by searching databases representing thousands of companies, using various quality criteria, DSM also works up ideas from Wall Street sources and from company news. Interesting ideas are monitored on an ongoing basis, and companies whose fundamentals appear attractive are watched continuously for buying opportunities.

In conjunction with the co-CIO's, DSM's portfolio managers/analysts take into consideration a number of factors when evaluating the attractiveness of an investment idea. Among the qualitative factors are barriers to entry, number of competitors, economic cyclicalities, customer loyalty, price competition, global reach, government involvement and management quality. Among the quantitative factors are historic revenue and EPS growth, projected revenue and EPS growth, return on assets, return on equity, capital expenditures relative to net income, and the stock's historic P/E range during the past five years.

DSM employs several proprietary valuation methods that help to support the price and timing of purchase and sell decisions and the size of the position. One such method involves a historical evaluation of investor sentiment regarding each company's shares to determine typical P/E ratios when the company is in or out-of favor. In addition, analysts assess the effect past and current interest rates have on a company's P/E ratio, and project these effects going forward.

DSM generally only buys a stock if it believes the forward four quarter P/E ratio will rise over the next three years. To accomplish this, a target P/E ratio that DSM believes is reasonable and rational, and is reflective of a fairly valued stock three years from now, is selected. Once the target P/E has been agreed upon, it may be changed, but normally the change is only incremental. In addition, two hurdles need to be cleared (1) the stock must have a P/E on forward four quarters earnings that is at least 10% below the target P/E three years from now and (2) it must have attractive business fundamentals that translate into a reasonably predictable and growing stream of earnings.

Stocks are trimmed or sold as their share price rises thereby reducing the stocks projected three-year total return to below that of other projected returns in the portfolio. DSM will also sell stock on an

Manager profiles

earnings miss or a "guide down" of company earnings, assuming the investment thesis is threatened or when the firm identifies a better investment idea.

Portfolios normally consist of 25 to 35 stocks with individual positions targeted at 3%. DSM tends to sell down positions appreciating over 7% with a maximum position size of 10%. For select high return/low risk investments positions can be as high as 5% to 7% at cost. Foreign domiciled positions are limited to 15% of the portfolio. Portfolios are normally diversified among 5 to 7 sectors, with a maximum sector weight at approximately 35%. Annual turnover has historically been approximately 60%; half of which is trims and adds.

Manager profiles

DSM Capital Partners - DSM Large Cap Growth Equity

Mercer Evaluation Summary

Factor	Rating (-, =, + or ++)	Comments
Idea Generation	++	Strickberger and Memishian appear to have good investment acumen and a strong appreciation for the types of stocks DSM wants to be involved in as well as the drivers of returns. The two have a lengthy working relationship, which we believe has created a strong sense of trust and collaboration. Supporting them is a deep bench of analysts who employ a labor intensive process that leverages the framework of Michael Porter's Five Forces to identify companies that participate in large open-ended growth markets, are positioned to take market share, and are generally insulated from competitive pricing pressures. We believe the result of this analysis is a strong understanding of company fundamentals, which helps DSM maintain conviction (or add to positions) during periods of market uncertainty. It also helps the team make informed decisions as to when to exit positions.
Portfolio Construction	+	We like that the team relies on stock selection to deliver above benchmark returns. The strategy has loose benchmark relative sector constraints and the team has demonstrated a willingness to move meaningfully away from the benchmark; resulting in higher than average tracking error. To manage risk DSM actively monitors the upside and downside potential associated with individual stocks.
Implementation	+	At the present time we did not observe issues which would present implementation concerns. Asset levels seem to be manageable and the firm is cognizant of liquidity issues. DSM appears to have sufficient trading resources to execute its investment ideas.
Business Management	+	We like that Strickberger and Memishian lead by example and mandate that the team invest a portion of their net worth in DSM's strategies. The firm remains profitable, has witnessed minimal analyst turnover, and has a deep bench of talent to replace Strickberger and Memishian in the event that something happens to one of them. While these are all positives that help align client interest with DSM, the firm is dependant on the continued success of the Large Cap Growth Equity strategy and its ability to differentiate itself in an asset class that some have shown a willingness to passively invest.
Overall Rating (A, B+, B or C) A (T)		There is much to like about this concentrated, conviction oriented strategy. It benefits from the experience of Strickberger and Memishian as well as the firm's deep bench of analysts who have a strong appreciation for DSM's investment philosophy and who are invested in the firm's products; helping align client interest with DSM's interest. While these are all positive factors, what we think sets the strategy apart is the team's labor intensive investment process; DSM's efforts to conviction weight these insights; and the firm's unwillingness to pay a premium multiple for anticipated growth. In our view, these attributes position the strategy to generate positive up market capture, while providing reasonable downside protection. More specifically, we believe DSM's research and approach helps it maintain conviction (or add to positions) during periods of market uncertainty. It also helps the team make informed decisions as to when to exit positions.

Manager profiles

Additional Observations	This is a concentrated, conviction based strategy with loose sector and industry constraints. It has the potential for higher than average tracking error and may not be suitable for all investors. The strategy offers good up market capture and should perform particularly well when fundamental are being rewarded. The avoidance of stocks that could see multiple compression should help result in reasonable downside protection.
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Manager profiles

HS Management Partners - Concentrated Quality Growth Equity

Firm Background and History: HS Management Partners, LLC ("HSMP") is an independently-owned investment management firm based in New York. Founded by Harry Segalas in 2007 as Agility Asset Management, the firm specializes in concentrated quality growth equity for institutional and high net-worth clients. Over half of the firm's staff has prior experience working together at W.P. Stewart Asset Management.

Key Decision Makers: Harry Segalas is the firm's CIO and lead portfolio manager for its Concentrated Quality Growth Equity strategy. He is supported by senior research analysts David Altman, Greg Nejme, and Rob Gebhart; as well as a team of junior analysts. While Altman, Nejme, and Gebhart are assigned name coverage by industry specialization, Segalas drives the idea generation process and is the ultimate decision maker.

Investment Style/Philosophy: HS Management Partners believes superior returns can be achieved by investing across the quality growth continuum at a reasonable price. Through bottom-up, fundamental research the team looks to invest in quality businesses with strong management that are trading at attractive valuations.

Investment Process: The stock selection process focuses on identifying quality business franchises with at least a \$2 billion market capitalization that possess: judicious management teams, superior business models, sound balance sheets, high free cash flow characteristics, recurring revenue streams, pricing power, global platforms, new market opportunities, wide and defensible moats, and strong earnings prospects. Throughout the idea generation process, the team focuses on key sectors it believes to will hold a number of quality businesses such as: Consumer Discretionary/Staples,

Consumer/Business Services, Media, Technology, Healthcare, and Industrials. This focus on sectors narrows the investable universe to approximately 250 companies that are then subject to further due diligence.

Ideas with attractive investment potential are placed on a 50-name Focus List. A comparative financial analysis is undertaken on each name in which discount rates, expected growth rates, and other valuation assumptions are measured in relative multiples to the market, free cash flow yields, and appraised present values. Targeted research is then conducted on each stock to further analyze business models and evaluate long-term potential. Sources used in this stage of the process include conference calls, SEC filings, and Street research. Analysts also contact customers/suppliers, meet with management teams, and attend industry conferences to gain a better understanding of the factors critical to attaining a company's projected earnings growth.

The final step in the idea generation process is the valuation analysis in which an idea is analyzed according to its absolute and relative price/earnings ratio in the context of the level and duration of its organic growth rate. The P/E ratio is also examined relative to where the stock has sold in the past and where it may sell in the future based on fundamental prospects. The quality of earnings is determined by focusing on free cash flow yields. The team also conducts an appraised present value analysis on each stock in the Focus List. Companies with strong fundamentals and attractive valuations are bought.

Stocks are sold when fundamentals deteriorate, valuations become unattractive, or better opportunities in the market exist. Individual position sizes typically range from 2% to 8%, and there are no constraints at the sector-level. The portfolio consists of 20 to 25 stocks and is fully invested. Name turnover averages 40% per annum.

Manager profiles

HS Management Partners - Concentrated Quality Growth Equity

Mercer Evaluation Summary

Factor	Rating (-, =, + or ++)	Comments
Idea Generation	+	The strategy benefits from Harry Segalas' talents as a portfolio manager and team leader. Having captained the portfolio for an extensive period, he appears ably supported by a committed analytical staff that practices a collaborative research process that fosters healthy discussion. However, while HSMP's philosophy of investing in growth companies at compelling valuations is reasonable, we struggle to identify a true edge in the depth of its research to uncover quality businesses with positive earnings streams and sustainable competitive advantages given the team's varying experience levels. The dedicated research team attempted to bolster its efforts through a recent, opportunistic hire, but we wonder if Segalas' conviction is consistently challenged to foster our highest factor score.
Portfolio Construction	+	The team utilizes a benchmark agnostic approach to construct a portfolio consisting of 20 to 25 names. While the fully invested portfolio attempts to reflect the team's highest convictions, it lacks a stringent, formal risk management process. The team aims to mitigate this by focusing on only higher quality, stable companies.
Implementation	+	At current asset levels, we are not concerned with capacity or the team's ability to implement ideas. The team has set a reasonable capacity limit and utilizes a dedicated trader to handle trades efficiently.
Business Management	+	HS Management Partners (formerly known as Agility Asset Management) is a 100% employee-owned firm that was founded in 2007 by Harry Segalas. The firm dedicates all of its resources to its large cap growth product, and assets are comfortably above break-even levels leaving the firm room to incentivize its key talent. Even though there has been some movement amongst the team's junior staff, turnover amongst the investment team has been generally low. The firm's lack of a solidified succession plan is something that we believe needs addressing, especially given how significant Segalas' influence on the firm and overall process is.
Overall Rating (A, B+, B or C) B+ (T)		The Concentrated Quality Growth Equity (CQGE) strategy benefits from the experience of lead portfolio manager, Harry Segalas. He appears to be ably supported by a dedicated research staff, and we appreciate that the team is only asked to work on the CQGE, the firm's only product. However, while HSMP's philosophy of investing in growth companies at compelling valuations is reasonable, we struggle to identify a true edge in the depth of its research given the team's varying experience levels. The research team attempted to bolster its efforts through a recent, opportunistic hire, but we wonder if Segalas' conviction is consistently challenged. In addition, the firm's lack of a solidified succession plan leaves it susceptible to key person risk and is something that we believe needs addressing, especially given how significant Segalas' influence on the firm and overall process.

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Additional Observations	The strategy is best classified as growth-at-a-reasonable-price (GARP) and will possess a stronger bias towards higher quality, growth companies. As a result, it should hold up well in declining markets but lag when the market is momentum-driven or when speculative stocks are in favor. The strategy may exhibit higher tracking error at times given its concentrated nature and willingness to make larger sector bets. With its longer-term investment horizon and concentrated portfolios, HSMP's performance could veer from the benchmark, especially when investors' are hungry for risk or one sector drives most of the market's returns. We do not recommend that the strategy be used as stand-alone mandate and is best suited as a complement to something with a more aggressive growth profile.
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Manager profiles

Loomis, Sayles & Company - Large Cap Growth

Firm Background and History: Loomis Sayles & Company, LP (Loomis) was founded in 1926 to provide management for institutional and individual clients. Nvest Companies LP (Nvest), a majority owned subsidiary of New England Mutual Life Insurance Company (New England), acquired a controlling interest in Loomis in 1968. New England was subsequently acquired by Metropolitan Life Insurance Company. In October 2000, IXIS Asset Management (IXIS), formerly known as CDC Asset Management and now known as NATIXIS, acquired Nvest. Loomis continues to retain investment independence, management, and operating autonomy. Loomis is headquartered in Boston.

Key Decision Makers: Aziz Hamzaogullari leads the Large Cap Growth team which includes four research analysts who specialize by industry. Brian Coyle covers most Technology, Service-related, and Specialty Finance stocks. Peter Linnard covers Health Care, Energy, and Financials. Rayon Ward covers Consumer Staples, Consumer Discretionary, and Networking/Hardware IT names, and Igor Chan covers Industrials and Materials. All members joined Loomis through a team lift-out from Evergreen Investments in May 2010.

Investment Style/Philosophy: The Large Cap Growth team believes successful growth investing is the result of identifying a limited number of high quality companies capable of sustaining above average, long-term cash flow growth and purchasing them at discounted prices to their intrinsic value. The result is a concentrated, low-turnover portfolio of the team's highest conviction ideas.

Investment Process: The team follows a seven-step research framework to identify and select securities for inclusion in the

portfolio. In the first step, the team's dedicated industry research analysts attempt to identify companies that have a sustainable competitive advantage. Analysts do not use any quantitative screening methods in their work. Instead, they try to identify unique elements of a company's business model through value chain analysis, discussions with industry contacts, accessing street research, reading investment periodicals and attending industry conferences. Next, the analysts conduct a competitive analysis of the company's industry by assessing barriers to entry, industry rivalry, power of buyers and sellers and substitution threats and look for the strongest company in the value chain. Companies that meet the previous two criteria are subject to financial analysis which includes an assessment of balance sheet strength, capital intensity, business mix, and margin structure. Companies must have sustainable and growing free cash flow, an ability to meet reinvestment needs, and cash flow return on investment above the cost of capital. Next, analysts evaluate company management by looking for teams that have a long-term perspective, manage the business with vision and integrity, have incentives aligned with long-term shareholder interests, and who have a record of allocating capital to investments creating long-term value.

If a company meets the preceding quality criteria, the analysts evaluate the sources and sustainability of profitable growth. They focus on identifying secular and structural growth drivers that are not likely to change for at least five years. Analysts create their own growth forecasts independent of company guidance or Street expectations.

Next, analysts determine an intrinsic value range for the stock by determining the present value of future cash flows. In their work, which includes a sensitivity analysis of key variables to assess downside risk and focus on high-impact drivers of value, the analysts prepare best-, base, bear-, and worst-case valuation scenarios. The final step is what the team calls expectations analysis, where the

Manager profiles

analysts assess the valuation assumptions implied by the stock's current price to differentiate fundamental drivers of value from market sentiment drivers of price and to understand where and how the analyst's perspective diverges from that of the market. Stocks considered for purchase must be selling at a substantial discount to its intrinsic value while the quality and growth elements (i.e., the investment thesis) are intact. Investment decisions are made by team consensus, with Hamzaogullari having the final call.

A stock is sold if the current price fully reflects intrinsic value, the investment thesis changes (e.g., unfavorable structural change within the business or market, the team loses confidence in management, fundamentals decline), a better risk-reward opportunity becomes available elsewhere, or its position size becomes too large (usually 8%).

Portfolios typically hold 30 to 40 names with full position sizes ranging between 4% and 8% of the portfolio. Industry weights are limited to 25% of the portfolio, while sector weights are subject to a maximum of the greater of 10% of the portfolio or two times the weight in the Russell 1000 Growth Index or the S&P 500 Index (with no minimum). The strategy is fully invested with cash comprising less than 5% of assets. Annual turnover has historically been around 20% per year.

Manager profiles

Loomis, Sayles & Company - Large Cap Growth

Mercer Evaluation Summary

Factor	Rating (-, =, + or ++)	Comments
Idea Generation	+	Loomis's Large Cap Growth team is an experienced, tight-knit group, and all members clearly embrace the philosophy and investment process incepted by lead portfolio manager Aziz Hamzaogullari in 2006 and brought over to Loomis in 2010. The seven-step process, which seeks to invest in attractively valued, higher quality companies poised for long term earnings growth is research-intensive, methodical, and highly interactive. Analysts specialize by industry and conduct their own research and share their findings with the entire team at each step of the process. Although Hamzaogullari has final say over investment decisions, discussion and debate of investment ideas is expected of all analysts and Hamzaogullari strives for team consensus. Although we are impressed with the collaborative team dynamic and Hamzaogullari's investment acumen, we would like to gain a better understanding of how the team addresses underperforming holdings and Hamzaogullari's influence in those discussions before assigning a higher score to this factor. In addition, we would like to gain clarity into Loomis's plans to roll out a Global Growth strategy managed by this team with the help of the firm's Central Research Pool.
Portfolio Construction	+	Portfolios are concentrated and constructed from the bottom-up with the team's highest conviction ideas. Portfolio construction guidelines give the team ample latitude to build the portfolio, so sector and industry bets may be pronounced and we believe the (T) tracking error designation is warranted. However, the team allocates the portfolio holdings according to 21 "business" drivers, or secular investment themes to help diversify portfolio risk, and the exposures are monitored monthly.
Implementation	+	Hamzaogullari has set a reasonable capacity limit for the strategy, and despite strong asset growth in recent years, the team has not had any difficulties implementing its investment ideas. Transactions are efficiently handled by Loomis's central trading department.
Business Management	+	Loomis is owned by NATIXIS, and is well-supported and allowed an appropriate level of autonomy from its parent. Loomis primarily manages fixed income assets, which constitutes almost 90% of its business. However, the firm also operates specialized teams in other asset classes. The Large Cap Growth strategy is well-supported by Loomis' centralized back office functions, including trading, marketing, and risk assessment services. In addition, Hamzaogullari has ample leeway to manage the strategy as he sees fit with minimal oversight from Loomis's CIO of Equities or other members of Loomis senior management.

Manager profiles

Overall Rating (A, B+, B or C) B+ (T)	<p>There are several appealing elements of Loomis's Large Cap Growth strategy, notably a disciplined and methodical investment process which focuses sequentially on quality, growth, and valuation, a close-knit and collaborative team, and the investment acumen of Aziz Hamzaogullari. Hamzaogullari has fostered an egalitarian team structure in which all members are expected to discuss and debate all investment ideas. We would like, however, to gain a better understanding of how the team enforces its sell discipline, especially the degree to which Hamzaogullari drives decisions. In addition, we would like to learn more about the team's plans to introduce a global version of the strategy and how doing so will impact its research bandwidth before we can consider Large Cap Growth for a higher rating.</p>
Additional Observations	<p>Due to the strategy's loose portfolio construction guidelines, name concentration, and long-term investment horizon, clients should expect short-term performance fluctuations in both absolute terms and relative to the Russell 1000 Growth Index. Given the team's focus on financially strong companies and emphasis on valuation and downside risk, the strategy usually performs better in flat to down markets, and may lag when investor appetite for risk is high.</p> <p>Although the inception date of the strategy under Hamzaogullari's team and process at Loomis is July 1, 2010, he was able to take with him the composite track record which dates back to mid-2006 from Evergreen. However, the track record for the mutual fund (the Natixis Loomis Sayles Growth Fund) includes performance of a different team and process prior to July 1, 2010.</p>

Manager profiles

Neuberger Berman - Large Cap Disciplined Growth

Firm Background and History: Neuberger Berman (Neuberger) was founded in 1939 as a New York limited partnership. In 1999, the firm sold a portion of its equity to the public, keeping the majority interest in the hands of former partners and employees. In 2003, Neuberger was acquired by Lehman Brothers Holdings Inc. (Lehman) in a cash and stock transaction. In December 2008, following the bankruptcy of Lehman, a group of senior investment and management professionals agreed to acquire a majority interest in Lehman's Investment Management Division (IMD), which included Neuberger Berman and Lehman Brothers investment strategies.

Currently, 76% of Neuberger is owned by employees with the remaining shares held by the Lehman Brothers bankruptcy estate (the Estate). Neuberger announced it intends to purchase the remaining common equity held by the Estate over the next three years. Following the completion of this transaction, Neuberger will be 100% employee-owned with equity distributed widely across the firm. Neuberger expects to increase ownership from roughly 300 current employee owners to roughly 450, with no one employee owning more than 5%. Neuberger's free cash flow will be used to pay for the shares, along with employee cash and/or future compensation.

Key Decision Makers: The core investment team consists of co-portfolio managers Dan Rosenblatt and John Barker who are the final decision makers. The investment team is supported by four research analysts, one portfolio risk manager, and one portfolio specialist. Additionally, the team has access to Neuberger's centralized buy-side analysts.

Investment Style/Philosophy: The Large Cap Disciplined Growth team invests in companies with prospective accelerating growth metrics (earnings per share, cash flow, or number of subscribers)

driven by an identifiable catalyst. The team seeks companies that have an experienced and accessible management team, ample liquidity, manageable leverage, and/or the ability to generate both free cash flow and operating income growth over time. The team believes companies with these qualities have the potential for price appreciation through earnings growth and an expanding valuation brought about by improved investor perception.

Investment Process: The initial step in the investment process is a simple quantitative screen to identify stocks with market-capitalizations above \$3 billion and daily dollar trading volume greater than \$100 million. Additionally, debt as a percent of total capitalization and price-to-earnings ratios for each respective industry group is considered. These screens typically yield approximately 400 companies. Fundamental analysis is then performed to identify potential catalysts that could accelerate growth at particular companies. This typically reduces the field to approximately 150 names. Examples of identifiable catalysts include: new product development, regulatory change, management changes, mergers, acquisitions, demographic shifts and corporate reorganizations. Next, the team analyzes the significance of the catalyst and quantifies its impact on a company's growth. As a final step, the team will often meet with company management. The investment process typically produces five or six companies at any given time that meet the team's criteria. While the dedicated team maintains ownership of the process, its research is supplemented with the firm's centralized analyst team throughout the entire process.

The team will sell a stock if one of the following occurs: full accretion of catalyst into relevant metrics or stock price, or failure of initial catalyst. A stock will be reviewed if it declines 10% from cost or 15% from its 52-week high.

Manager profiles

The portfolio consists of 50 to 70 holdings with no one single position exceeding the maximum of 5% or 1.5x the index weight at cost. Sector weights are restricted to fall between 50% and 150% relative to the benchmark sector (up to +/- 10% for smaller sectors). Cash is limited to 5%, ADRs are capped at 15%, and portfolio turnover averages 80%-100%.

Manager profiles

Neuberger Berman - Large Cap Disciplined Growth

Mercer Evaluation Summary

Factor	Rating (-, =, + or ++)	Comments
Idea Generation	+	The generation of ideas is the responsibility of each team member, but ideas are approved by Rosenblatt and Barker. This growth oriented investment team seeks stocks with accelerating growth metrics, as opposed to those that meet certain high growth hurdle rates, and very specific quality metrics. This 'second derivative' approach to growth investing, while reflective of a forward looking, non-consensus oriented investment philosophy, does not necessarily translate into a defensive investment strategy on a consistent basis. Neuberger has restructured its large cap growth team over the last several years to generate more investment ideas for Rosenblatt and Barker to consider and lessen its reliance on the firm's centralized buy-side analysts (used primarily for industry overviews), but has encountered some personnel issues in doing so. On the positive side, the investment process is considered sound and research is focused on developing a non-consensus edge. We think idea generation benefits from the team being specifically dedicated to this one strategy and from the insulation of key team members from most non-investment distractions.
Portfolio Construction	+	The portfolio is well diversified but is subject to the sector tilts of the growth benchmark (Neuberger generally refrains from taking large sector bets relative to the index). Positions are weighted based on index weight plus (or minus) conviction. Neill Groom, as portfolio risk manager, is responsible for tracking the portfolio's risk exposures on a daily basis. BARRA is used to analyze ex-ante tracking error and the portfolio's Active Share is explicitly managed but not particularly high. Groom's daily dashboard review monitors multiple exposures versus the benchmark and he works very closely with the portfolio managers. A quarterly portfolio review is conducted which focuses on strategy, style, performance attribution, and risk analysis, mostly for the benefit of the firm's head of portfolio analysis and equities CIO.
Implementation	+	Trading resources are sophisticated and capacity/liquidity issues are not a concern at this time.
Business Management	+	In December 2008, following the bankruptcy of Lehman, a group of senior investment and management professionals agreed to acquire a majority interest in Lehman's Investment Management Division. We viewed this as a positive development for investors in Neuberger Berman and Lehman Brothers funds as the alignment of interests and the longer-term direction of the business was made more stable and clear. Since then, the firm has demonstrated its ability to operate as a stand alone entity while retaining talent within the firm and is moving toward 100% employee ownership over the next three years. The firm remains in a strong financial position with revenues from approximately \$214 billion in assets under management. Neuberger's compensation scheme includes a deferred element of up to 25% that, for the Disciplined Large Cap Growth investment team, is invested in either Neuberger shares or this strategy.

Manager profiles

Overall Rating (A, B+, B or C) B+	The insistence on both free cash flow yield and operating income growth ensure some portfolio emphasis on quality over time, but the strategy is by its nature somewhat chameleonic (i.e., not always defensive) as the team seeks companies with acceleration of a key business metric that can differ from company to company. Growth and seasoning of the team over the years has added depth to Neuberger's research capabilities. Personnel and structural changes have been somewhat disruptive, albeit beneficial. While the team leverages the Neuberger's centralized buy-side analyst team to supplement its research, this group is not utilized for idea generation. The team is knowledgeable and Rosenblatt and Barker provide solid but not necessarily passionate leadership. Moreover, the support provided by the organization allows the team the luxury of singularity of focus and a minimization of distractions within the context of a firm with an expanding product lineup.
Additional Observations	The strategy is considered to be traditional growth and has the potential to perform well in most market environments. Those favoring lower quality or smaller cap names within the Russell 1000 Growth Index may present performance headwinds for Neuberger.

Manager profiles

Polen Capital Management - Large Cap Growth Equity

Firm Background and History: Polen Capital Management (PCM) was founded by David M. Polen in 1979. PCM is located in Boca Raton, FL, and the firm focuses exclusively on large cap growth equity investing. PCM is 51% owned by employees (with 100% of the voting shares), while the Polen family owns the remaining 49% of equity (non-voting shares).

Key Decision Makers: Dan Davidowitz and Damon Ficklin make all portfolio decisions collaboratively. Davidowitz and Ficklin are supported by a small team of generalist research analysts.

Investment Style/Philosophy: PCM believes that consistent earnings growth is the primary driver of intrinsic value growth and long-term stock price appreciation. Through bottom-up fundamental research, the team seeks to outperform the broad market with lower volatility by investing in a concentrated portfolio of high quality businesses that are capable of delivering sustainable earnings growth with a margin of safety.

Investment Process: The process begins with an investable universe of companies above \$5 billion in market capitalization. These companies are subject to a preliminary quantitative screen that filters for strong return on capital, stable to improving margins, low debt to equity, free cash flow growth, and better than average earnings growth. This results in a list of roughly 200 to 300 companies that the team closely follows and from which financial quality and earnings consistency are assessed, which leads to roughly 100 to 125 potential candidates.

The team conducts further fundamental research based on franchise strength, industry strength, management, and earnings sustainability,

which is one of the most important factors in the evaluation of competitive moats. Valuation models, which incorporate cash flow, fixed income comparisons, and earnings yield, are utilized for valuing companies, though this is of secondary consideration relative to the overall quality of the business. The team then buys the most attractive companies based on margin of safety and growth potential characteristics. Dan Davidowitz and Damon Ficklin make final buy and sell decisions as well as position weighting decisions together.

A stock is sold or trimmed if the company experiences a qualitative or quantitative breakdown. A qualitative breakdown might involve an impairment of the franchise, an inability to quantify risk, or lowered confidence in management. A quantitative deterioration could follow margin compression, declining return on capital, reduced earnings growth, or increasing debt to total capital. A stock is also sold or trimmed due to valuation, identification of a better alternative, or adherence to the portfolio construction discipline.

The portfolio holds between 15 and 25 names. Individual positions are limited to 10%, and sector exposures are constrained to 50% of the portfolio. The portfolio aims to be fully invested. Turnover approximates 25% per annum.

Manager profiles

Polen Capital Management - Large Cap Growth Equity

Mercer Evaluation Summary

Factor	Rating (-, =, + or ++)	Comments
Idea Generation	+	PCM adheres to an enduring discipline of purchasing high quality, large cap growth stocks. The investment process, grounded in the analysis of sustainable growth and competitive moats, is focused and straightforward. The team has a solid grasp on identifying durable business models with growth potential through its deep fundamental research efforts. We believe founder David Polen successfully transitioned leadership of the strategy starting in 2009 to Davidowitz and Ficklin, such that the team was prepared for sole leadership upon Mr. Polen's death in 2012. Davidowitz and Ficklin demonstrate strong knowledge and insights in the large cap growth space, and they benefit from the resources of a growing analyst team that should allow for deeper coverage of the eligible investment universe. Furthermore, the team appears to have a strong collaborative team dynamic. While we believe the team has shown substantial improvement in resources and leadership, we would like to see a period of continued stability.
Portfolio Construction	+	The portfolio is highly concentrated and employs loose stock and sector constraints, allowing the team to express its best bottom-up ideas. PCM has a sensible approach to position sizing, which reflects its conviction in the risk/reward profiles of individual holdings. Nonetheless, the team is prudent in diversifying against correlated business exposures and considering risk from multiple angles.
Implementation	+	The strategy focuses on large cap, liquid companies and follows a low turnover approach. Although PCM estimates a rather conservative level of capacity assets given its concentrated nature, we are not concerned with implementation at current asset levels and believe the strategy has ample room to grow.
Business Management	+	PCM's culture appears tight-knit, and the team has grown over time with few departures. CEO Stan Moss leads the business management efforts, allowing the investment team to focus on the portfolio. Investment professionals are co-invested alongside clients. The firm is majority owned and solely controlled by employees, with broadening ownership over time. The firm's sole focus is on the Large Cap Growth strategy. While this enables PCM to commit all resources to the success of the strategy, it does present some business risk. However, the firm is profitable with no debt, and it has been consistently growing assets over time. The firm has transitioned from its historically high net worth client base into the institutional marketplace, building out its back office functions and adding to its investment team appropriately.

Manager profiles

Overall Rating (A, B+, B or C) B+ (T)	Portfolio co-managers Dan Davidowitz and Damon Ficklin adhere to an enduring and consistent discipline of building a concentrated portfolio of high quality, large cap growth stocks. The strategy benefits from the experience and insights of the portfolio managers, a small but growing team of analysts who provide fundamental research support, and a solid collaborative team dynamic. The team builds the portfolio with conviction, ensuring the strategy represents its best ideas. We have an improved view of the team's leadership and resources but would like to see a period of continued stability before considering our highest rating.
Additional Observations	The product is concentrated and employs relatively loose constraints; as such, it has the potential to exhibit greater short-term volatility and tracking error. Given that the team adheres to higher growth thresholds, the portfolio will typically be biased towards Technology and Health Care sectors over time. We expect the strategy to hold up relatively well in down markets given the team's margin of safety focus, while it may lag in environments that reward lower quality companies.

Manager profiles

Waddell & Reed Asset Management Group - Core Equity

Firm Background and History: Waddell & Reed Asset Management Group (WRAM) is the institutional investment management division of Waddell & Reed Investment Management Company (WRIM). WRIM is owned by Waddell & Reed Financial, Inc., a publicly traded company. The firm is based in Overland Park, KS.

Key Decision Makers: Erik Becker and Gus Zinn have co-managed the strategy since 2006. They share ultimate responsibility for all portfolio decisions. The firm's team of analysts supports Becker and Zinn with industry analysis, competitive dynamics, and other company-specific insights.

Investment Style/Philosophy: The strategy seeks capital growth by identifying fundamentally solid companies with the potential for significant share price appreciation before these stocks are recognized in the marketplace. By anticipating changes in the economy, the team attempts to position the portfolio in the sectors, industries, and ultimately companies that will benefit most from these changes.

Investment Process: The stock selection process begins with a daily meeting of WRAM's investment professionals. This meeting includes all analysts, economists, and portfolio managers and provides a forum to discuss the firm's top-down views, a current overview of broad macro trends, and stock-specific ideas. As the group members discuss their individual investment ideas, Becker and Zinn focus their attention on macro themes that permeate these conversations. Approximately half of the strategy's holdings fall into a macro theme, which can emerge from WRAM's morning meetings,

regular interaction with management teams, or discussions with external analysts.

The balance of the investment ideas come from bottom-up fundamental analysis, which is conducted by WRAM's central research department. Analysts screen stocks based on earnings and valuation metrics, and they focus on a company's earnings power, management execution, and industry structure. Analysts attempt to identify market leaders with dominant brand loyalty or competitive factors that will result in continued growth above the cost of invested capital. Analysts also seek to identify companies with new products that could increase the company's market share. WRAM's centralized research team uses multiple analyses to develop upside and downside target prices, and stocks are assigned a Buy, Hold, or Sell recommendation.

This process results in a list of more than 150 Buy rated stocks in the strategy's market cap range of greater than \$3 billion. Approximately 75% of the time, Becker and Zinn use this list when making decisions, but they will deviate from this list when they disagree with the rating recommendation or when an idea emerges that is not covered by the research team. To be considered for inclusion, a stock needs to have at least 20% upside and a better than 2:1 upside/downside ratio.

A stock may be sold if the thematic thesis deteriorates; company specific fundamentals or competitive advantages deteriorate; the team views the stock as expensive or fairly valued; or a better idea presents itself. The portfolio generally contains 40 to 50 stocks. An initial position size is typically 0.5% to 1.0% and trimmed if it reaches 6% or 2.5 times the benchmark weight. Sector weights range from one half to two times the benchmark weight and are highly dependent on emphasized themes. The portfolio can invest up to 20% of the portfolio in international names through the use of ADRs.

Manager profiles

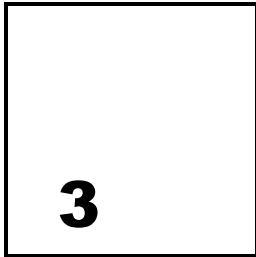
Waddell & Reed Asset Management Group - Core Equity

Mercer Evaluation Summary

Factor	Rating (-, =, + or ++)	Comments
Idea Generation	++	Portfolio managers Erik Becker and Gus Zinn follow a sensible and consistent approach to identify multi-year earnings catalysts in companies with strong competitive advantages - all before these catalysts are recognized by the market. The portfolio managers' strong working relationship that dates back to business school combined with their complementary personalities result in a critical review of each investment candidate, while their common philosophy leads to nimble decision making. The co-PMs further benefit from WRAM's central analysts, which we believe thoroughly analyze each company's earnings power, management execution, and industry structure. The collaborative dynamic between the analysts and portfolio managers encourages a robust cross-fertilization of ideas and another layer of review for each stock's merits and risks.
Portfolio Construction	+	Becker and Zinn thoughtfully balance the portfolio's allocation to themes versus bottom-up stock picks. Fairly loose benchmark-relative constraints allow the portfolio managers to express their best ideas with conviction and take active stock and sector allocations. Having said that, concentration risk is mitigated by the diversity of the strategy's sector exposures and investment themes. The firm has taken additional steps to quantify and monitor the portfolio-level style exposures, furthering the team's awareness of its bets.
Implementation	+	Strategy assets are modest, and capacity is set at a reasonable level so as to not impair implementation. While the portfolio can invest in stocks with market caps as low as \$3 billion, the team gives strong consideration to liquidity prior to investment. Trades are executed through the firm's central trading desk.
Business Management	+	WRAM is owned by Waddell & Reed Financial, Inc., a publicly traded company. Despite the parent company's expansive reach in the retail marketplace, it has demonstrated a commitment to its institutional asset management business. This includes providing the team with the technology and personnel resources necessary to maintain its competitiveness, which we think in turn helps with retaining key employees. Compensation practices and co-investment appear to align investment professionals' interests with those of clients.
Overall Rating (A, B+, B or C) A		The strategy's competitive advantage is the team's ability to look past near-term market sentiment and focus on competitively strong companies and growing industries. In our view, this enables Becker and Zinn to develop differentiated views on potential earnings catalysts driven both at the company level and by broader macro themes. The strategy also benefits from the firm's robust research efforts and the team's cross-fertilization of ideas. Underlying the approach is the portfolio managers' long-term working relationship, which has fostered an environment conducive to critical evaluation of industries and stocks as well as the confidence to invest with conviction.

Manager profiles

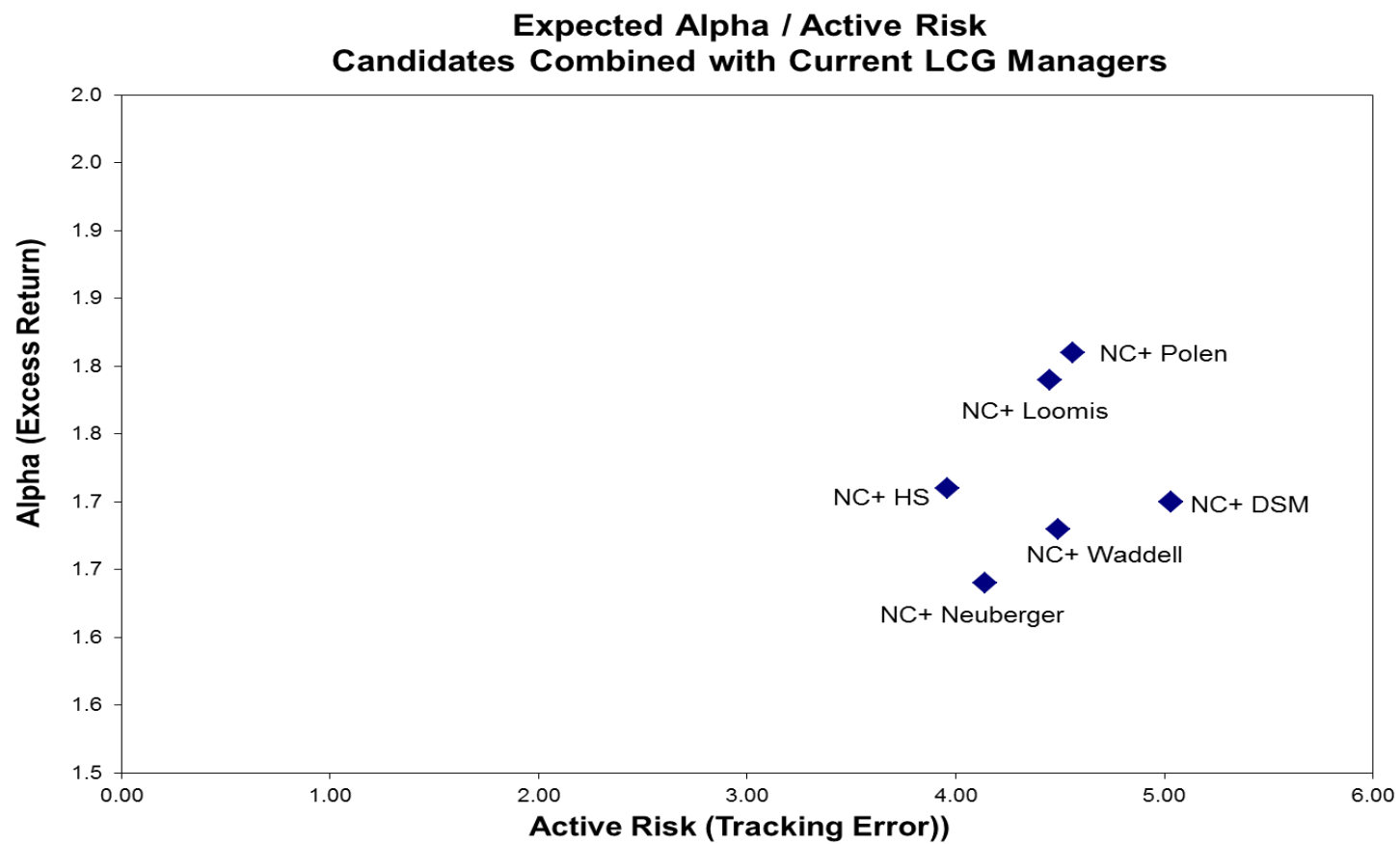
Additional Observations	The team tends to invest in high quality companies with dominant market shares, consistent cash flows, and defensible brands. As a result, the strategy may lag in the early stages of an economic recovery.
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Analysis of past performance

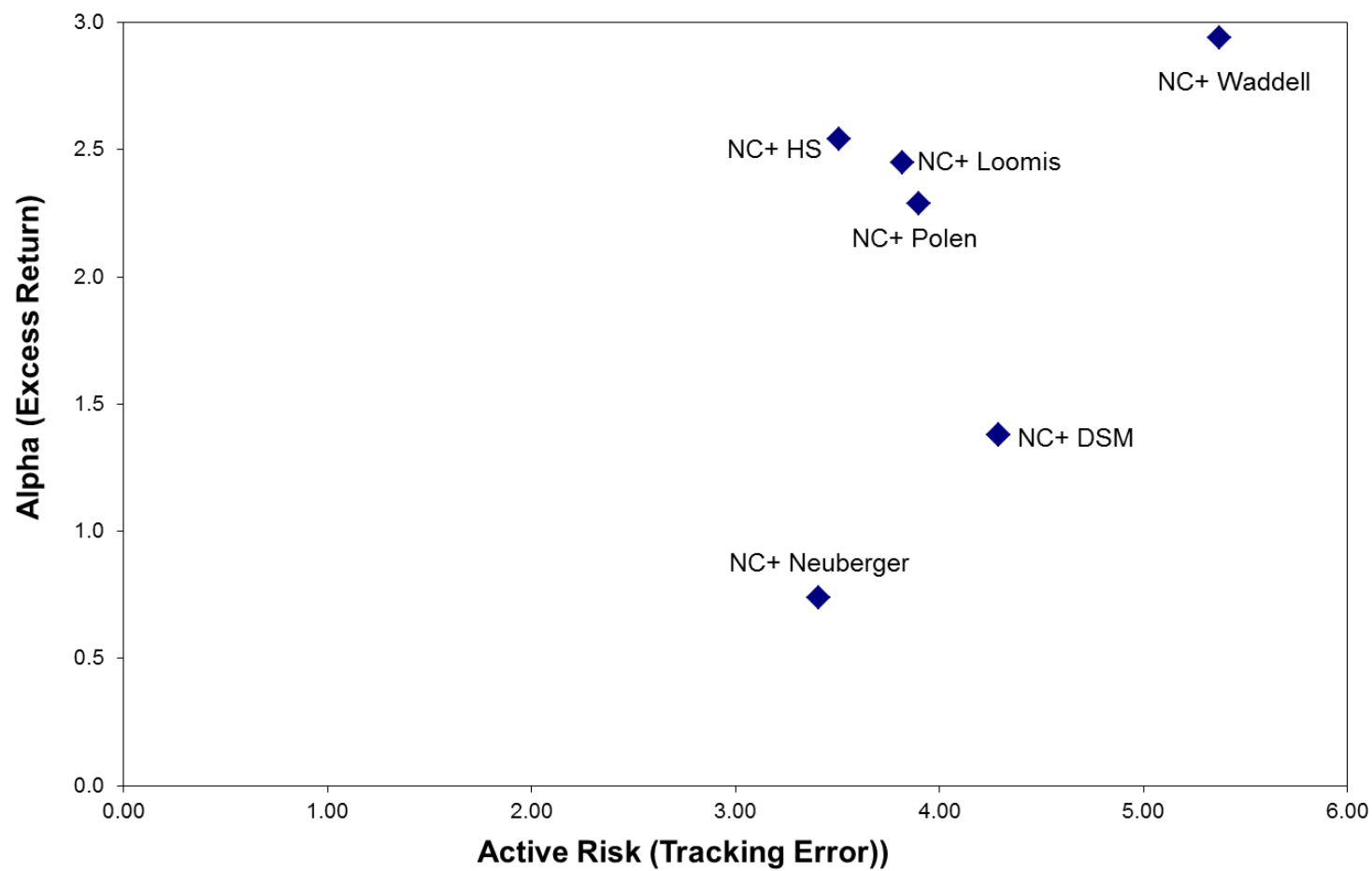
**Return Based Style Analysis
Over 5 Years Ending 12/31/13**





9. The alpha and tracking error were calculated from Mercer's portfolio structuring tool with an even split between the two existing managers and each additional candidate. Correlations used in the assumption were split, 65% based on historical excess return correlations and 35% from the benchmark relative correlation matrix. Historical tracking errors were used to create the forward looking assumptions.

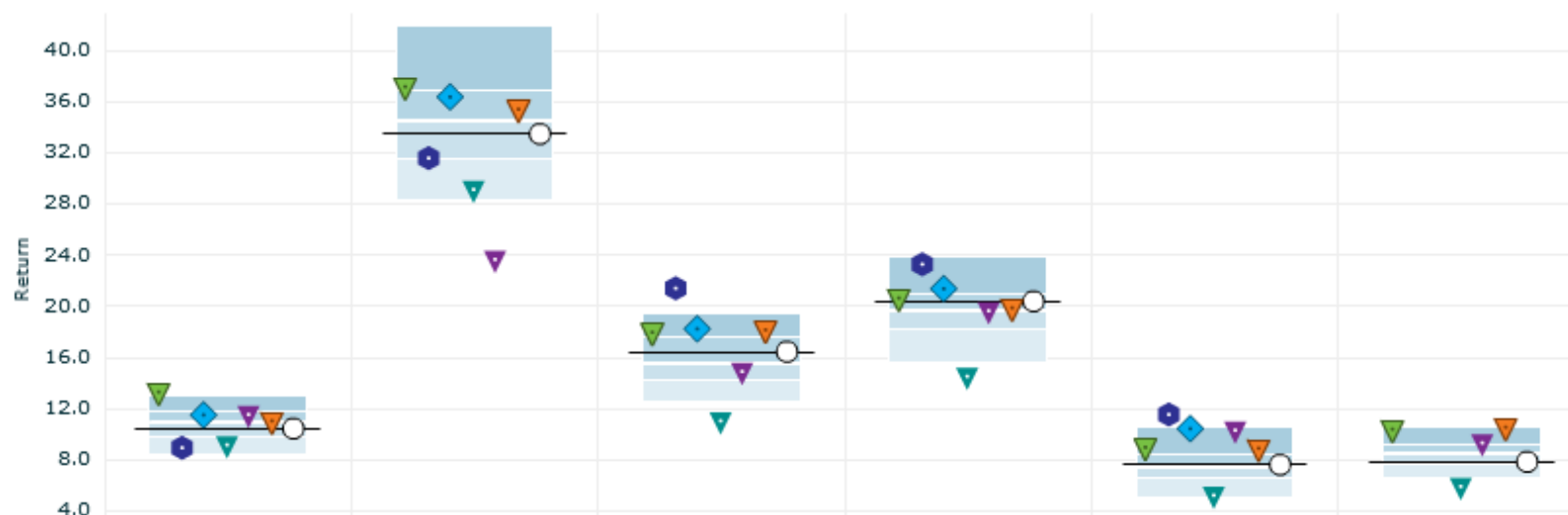
Alpha vs Active Risk (Back Tested)
Candidates Combined with current LCG Managers



LARGE CAP GROWTH – NORTH CAROLINA SUPPLEMENTAL RETIREMENT PLANS Page 42

Return in \$US over 3 mths, 1 yr, 3 yrs, 5 yrs, 6 yrs 6 mths, 10 yrs ending December-13

Comparison with the US Equity Large Cap Growth universe (Percentile Ranking)

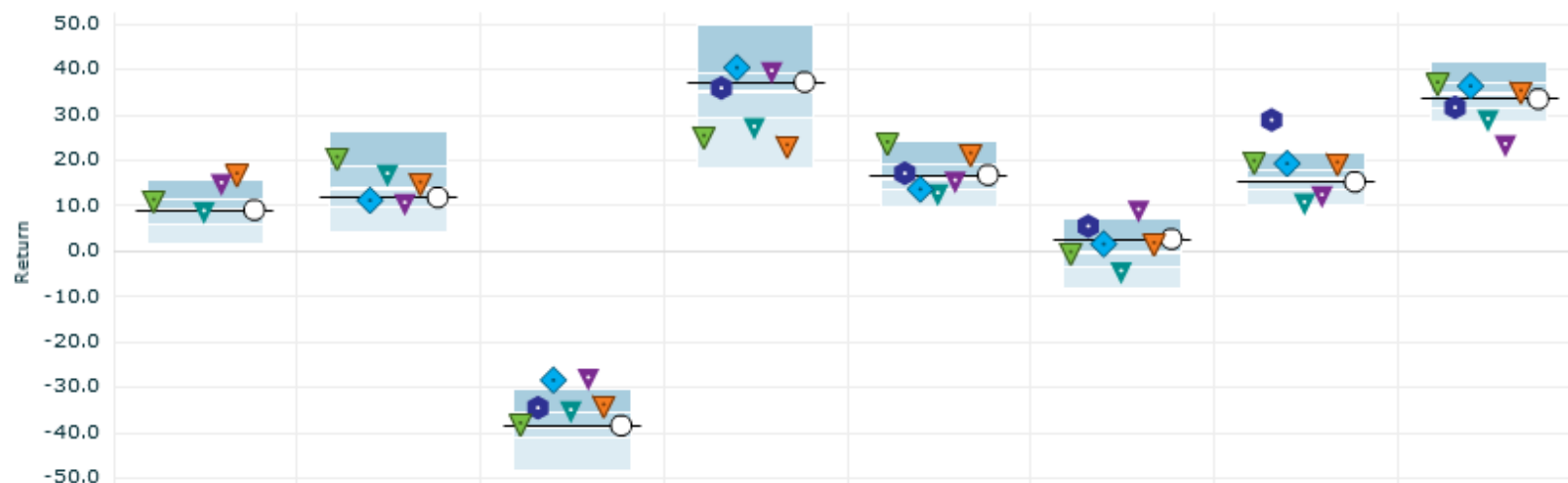


	3 mths (%)	1 yr (%)	3 yrs (%pa)	5 yrs (%pa)	6 yrs 6 mths (%pa)	10 yrs (%pa)
▼ DSM	13.31 (3)	37.16 (23)	17.97 (20)	20.64 (32)	8.99 (16)	10.38 (7)
● HS	8.94 (91)	31.60 (73)	21.42 (0)	23.30 (8)	11.53 (2)	-
◆ Loomis	11.49 (35)	36.37 (32)	18.23 (18)	21.39 (17)	10.43 (5)	-
▼ NB	9.18 (87)	29.14 (93)	11.05 (99)	14.53 (100)	5.23 (93)	5.90 (99)
▼ Polen	11.54 (34)	23.67 (99)	14.92 (61)	19.65 (53)	10.31 (6)	9.33 (21)
▼ Waddell	11.06 (45)	35.43 (42)	18.18 (18)	19.90 (44)	8.91 (17)	10.53 (5)
○ RU1000G	10.44 (63)	33.49 (60)	16.45 (39)	20.39 (35)	7.60 (42)	7.83 (72)
5th Percentile	13.01	41.93	19.41	23.87	10.58	10.56
Upper Quartile	11.81	36.86	17.54	21.00	8.42	9.16
Median	10.93	34.55	15.56	19.73	7.42	8.42
Lower Quartile	9.86	31.51	14.23	18.22	6.62	7.75
95th Percentile	8.39	28.37	12.52	15.59	5.08	6.62
Number	265	244	208	199	192	165

LARGE CAP GROWTH – NORTH CAROLINA SUPPLEMENTAL RETIREMENT PLANS Page 43

Return in \$US over last 8 years ending December-13

Comparison with the US Equity Large Cap Growth universe (Percentile Ranking)



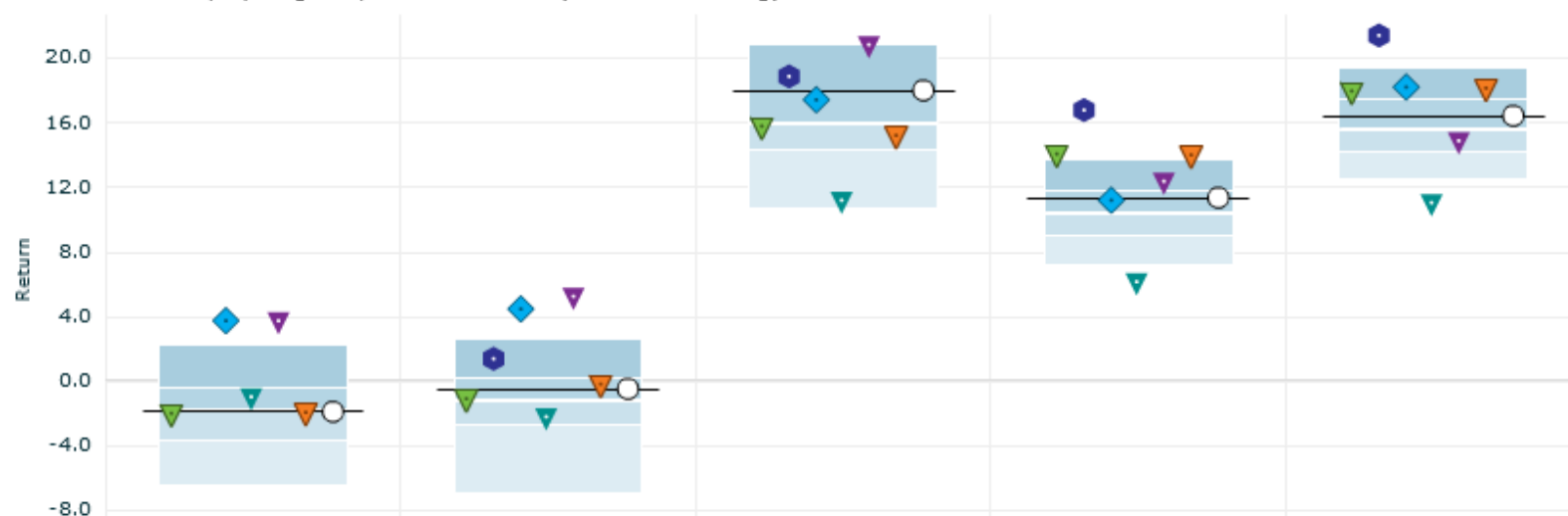
	1 yr to 12/2006 (%)	1 yr to 12/2007 (%)	1 yr to 12/2008 (%)	1 yr to 12/2009 (%)	1 yr to 12/2010 (%)	1 yr to 12/2011 (%)	1 yr to 12/2012 (%)	1 yr to 12/2013 (%)
▼ DSM	11.41 (26)	20.78 (18)	-37.81 (44)	25.42 (85)	24.08 (5)	-0.19 (48)	19.93 (13)	37.16 (23)
● HS	-	-	-34.50 (19)	35.92 (42)	17.14 (41)	5.55 (8)	28.86 (1)	31.60 (73)
◆ Loomis	-	11.15 (66)	-28.47 (4)	40.45 (22)	13.56 (73)	1.56 (34)	19.31 (16)	36.37 (32)
▼ NB	8.89 (53)	17.10 (33)	-34.94 (22)	27.46 (81)	12.87 (79)	-4.35 (82)	10.87 (94)	29.14 (93)
▼ Polen	15.07 (7)	10.74 (68)	-27.84 (3)	39.73 (23)	15.67 (53)	9.19 (2)	12.39 (86)	23.67 (99)
▼ Waddell	17.11 (2)	15.25 (43)	-33.72 (15)	23.45 (88)	21.63 (11)	1.90 (31)	19.60 (15)	35.43 (42)
○ RU1000G	9.07 (51)	11.81 (61)	-38.44 (49)	37.21 (34)	16.71 (44)	2.64 (24)	15.26 (57)	33.49 (60)
5th Percentile	15.53	26.42	-30.27	49.76	24.13	7.22	21.61	41.93
Upper Quartile	11.47	18.65	-35.37	39.22	18.96	2.55	17.97	36.86
Median	9.12	13.73	-38.53	34.95	15.95	-0.43	15.72	34.55
Lower Quartile	5.88	9.83	-41.00	29.46	13.35	-3.56	13.54	31.51
95th Percentile	1.54	4.26	-48.13	18.27	9.79	-8.22	10.22	28.37
Number	333	313	304	285	264	249	256	244

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LARGE CAP GROWTH – NORTH CAROLINA SUPPLEMENTAL RETIREMENT PLANS Page 44

Return in \$US over 5 annual rolling periods ending December-13

Comparison with the US Equity Large Cap Growth universe (Percentile Ranking)



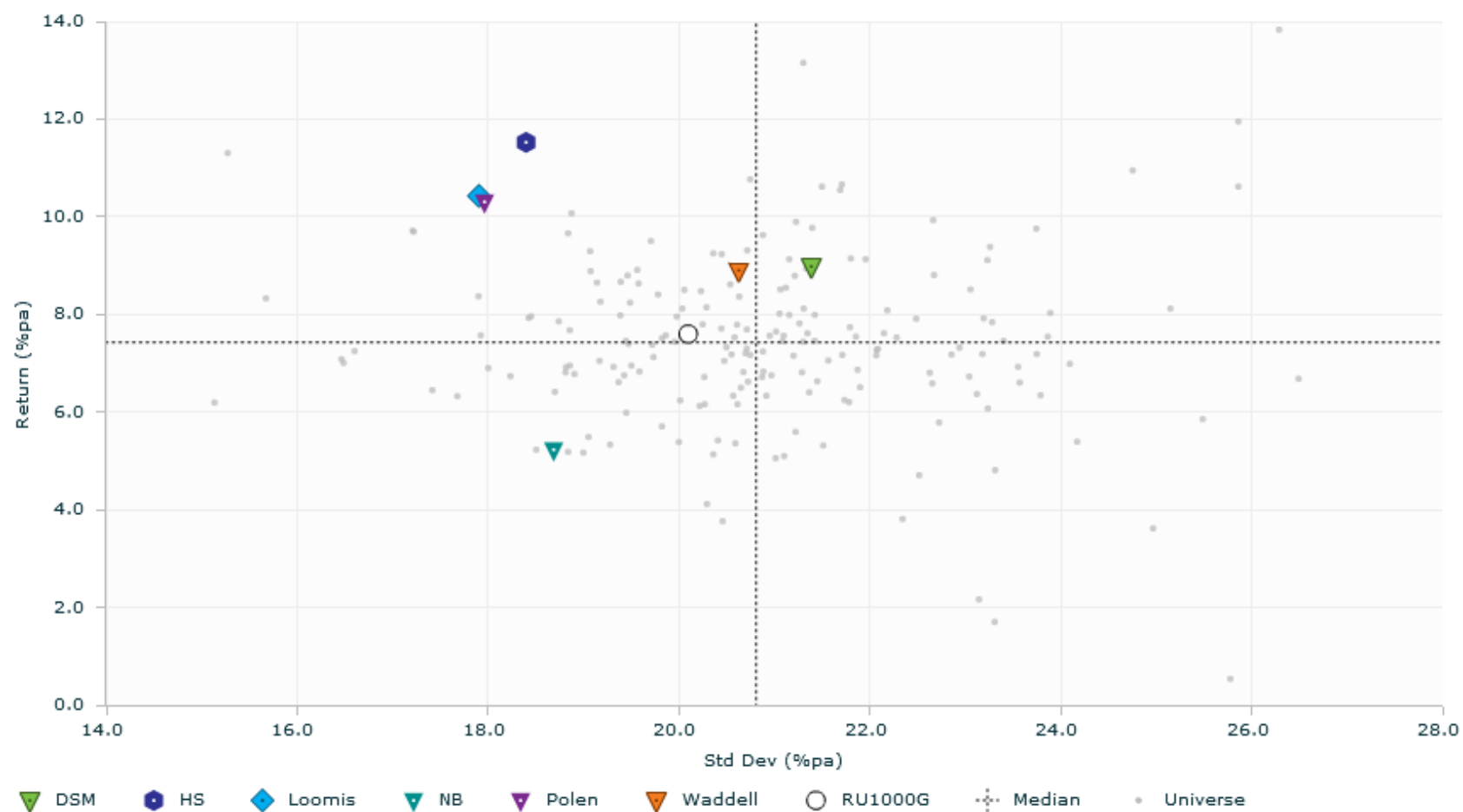
	3 yrs to 12/2009 (%pa)	3 yrs to 12/2010 (%pa)	3 yrs to 12/2011 (%pa)	3 yrs to 12/2012 (%pa)	3 yrs to 12/2013 (%pa)
DSM	-1.97 (53)	-1.09 (48)	15.81 (53)	14.10 (5)	17.97 (20)
HS	-	1.41 (12)	18.89 (16)	16.80 (0)	21.42 (0)
Loomis	3.75 (1)	4.49 (1)	17.44 (31)	11.23 (33)	18.23 (18)
NB	-0.97 (37)	-2.18 (71)	11.23 (94)	6.18 (98)	11.05 (99)
Polen	3.75 (1)	5.26 (0)	20.84 (5)	12.38 (17)	14.92 (61)
Waddell	-1.93 (52)	-0.16 (31)	15.23 (62)	14.02 (5)	18.18 (18)
RU1000G	-1.89 (52)	-0.47 (35)	18.02 (23)	11.35 (32)	16.45 (39)
5th Percentile	2.28	2.68	20.86	13.80	19.41
Upper Quartile	-0.35	0.25	17.93	11.86	17.54
Median	-1.80	-1.14	15.94	10.40	15.56
Lower Quartile	-3.65	-2.65	14.29	8.99	14.23
95th Percentile	-6.39	-6.89	10.69	7.27	12.52
Number	260	250	238	223	208

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Return and Std Deviation in \$US over 6 yrs and 2 quarters ending December-13 (quarterly calculations)

Comparison with the US Equity Large Cap Growth universe



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Return and Tracking Error vs. Russell 1000 Growth in \$US over 6 yrs and 2 quarters ending December-13 (quarterly calculations)
Comparison with the US Equity Large Cap Growth (Active) universe

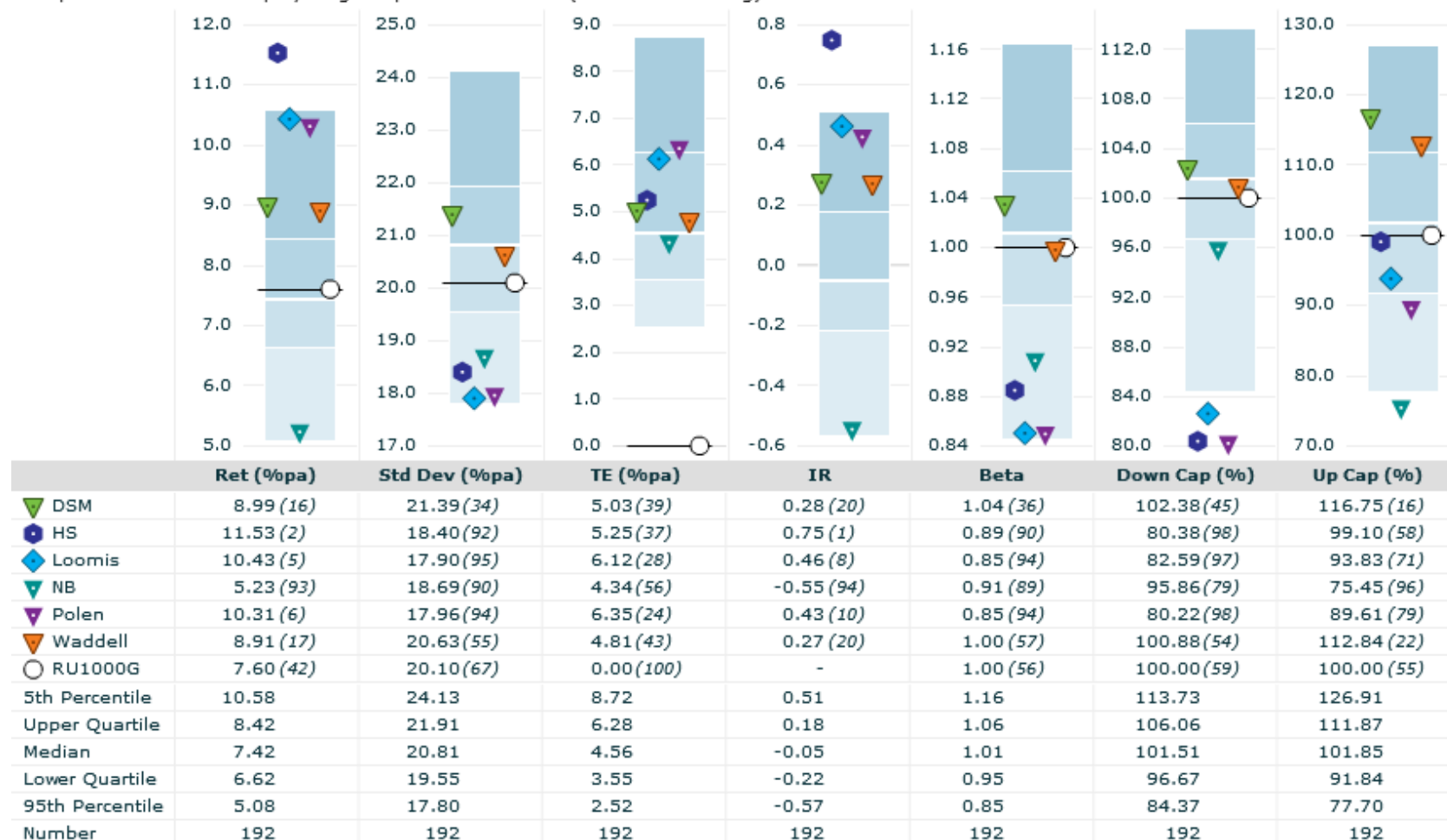


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Performance characteristics vs. Russell 1000 Growth in \$US over 6 yrs and 2 quarters ending December-13 (quarterly calculations)

Comparison with the US Equity Large Cap Growth universe (Percentile Ranking)

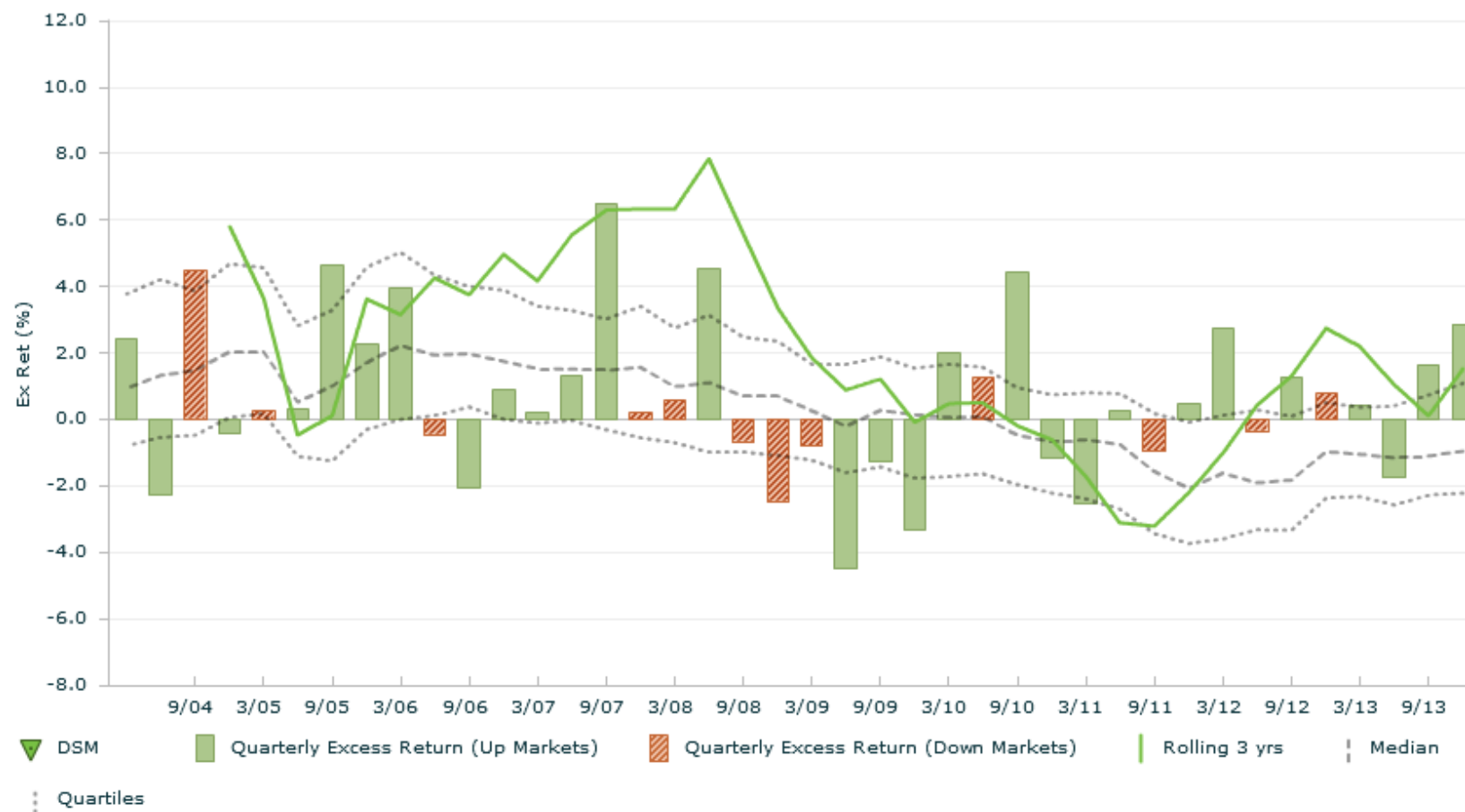


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State of North Carolina Retirement System - DSM - Large Cap Growth Equity

Quarterly Excess Return vs. Russell 1000 Growth with rolling 3 yr line in \$US (before fees) over 10 yrs ending December-13

Comparison with the US Equity Large Cap Growth (Active) universe

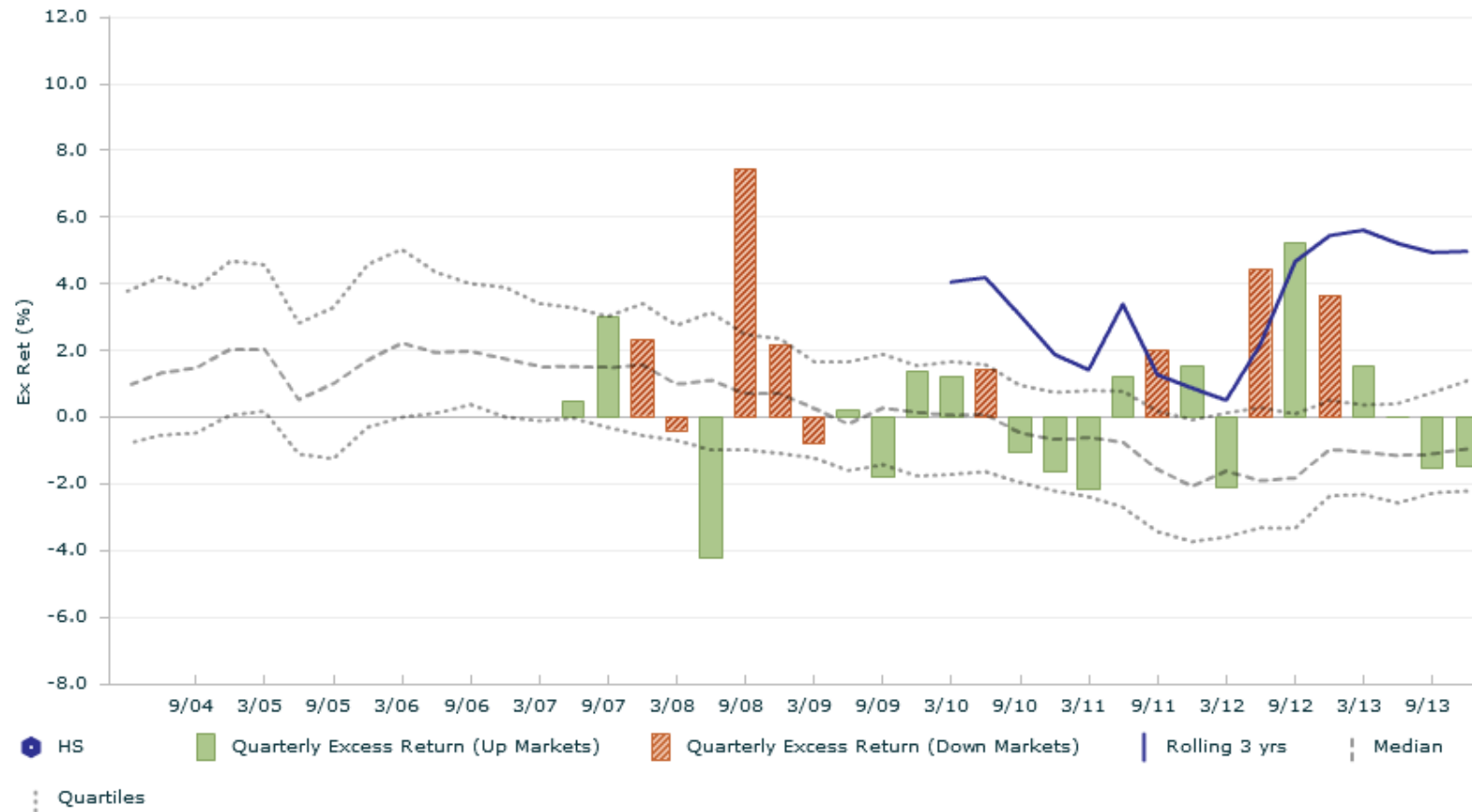


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State of North Carolina Retirement System - HS - Concentrated Quality Growth Equity

Quarterly Excess Return vs. Russell 1000 Growth with rolling 3 yr line in \$US (before fees) over 10 yrs ending December-13

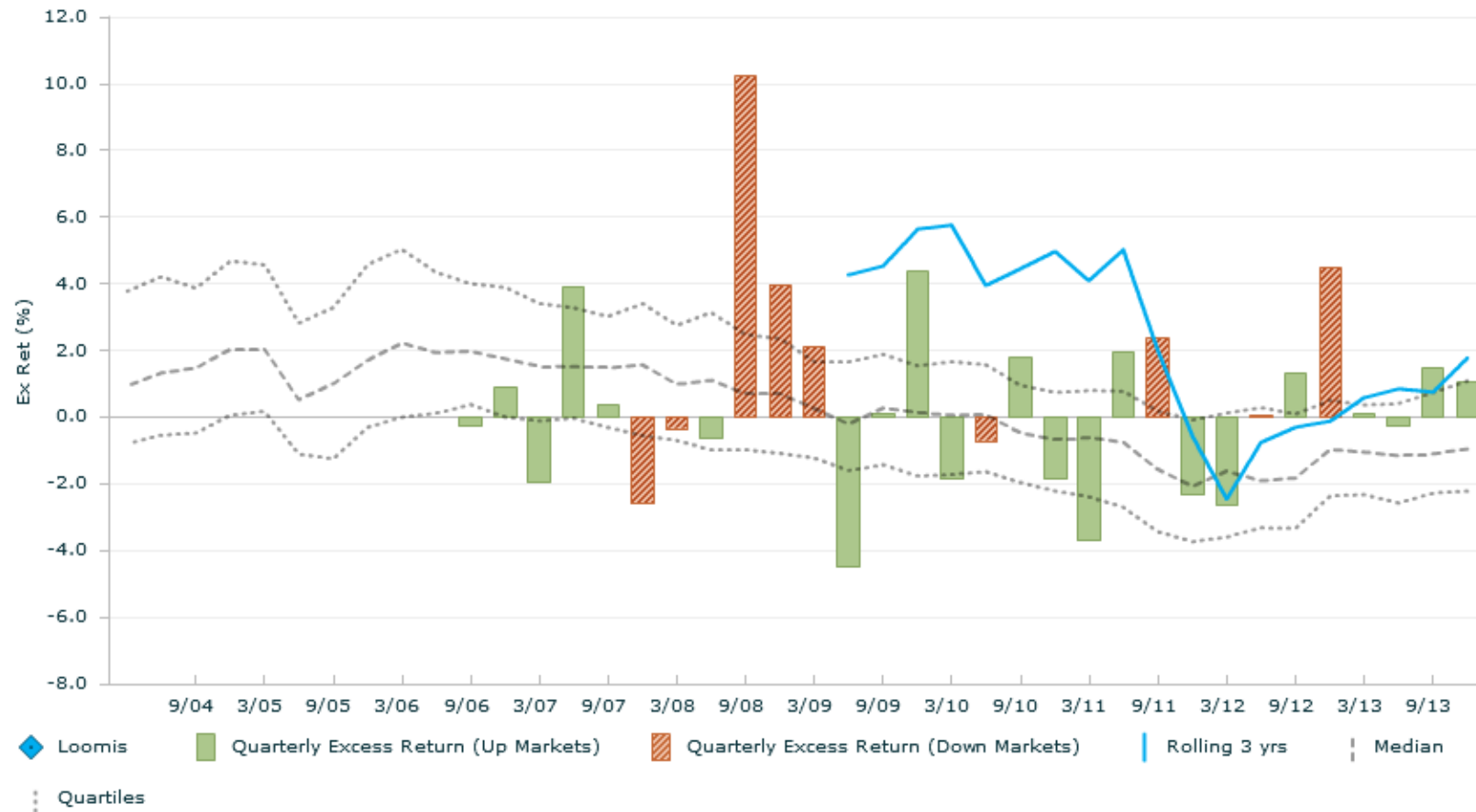
Comparison with the US Equity Large Cap Growth (Active) universe



State of North Carolina Retirement System - Loomis Large Cap Growth Composite

Quarterly Excess Return vs. Russell 1000 Growth with rolling 3 yr line in \$US over 10 yrs ending December-13

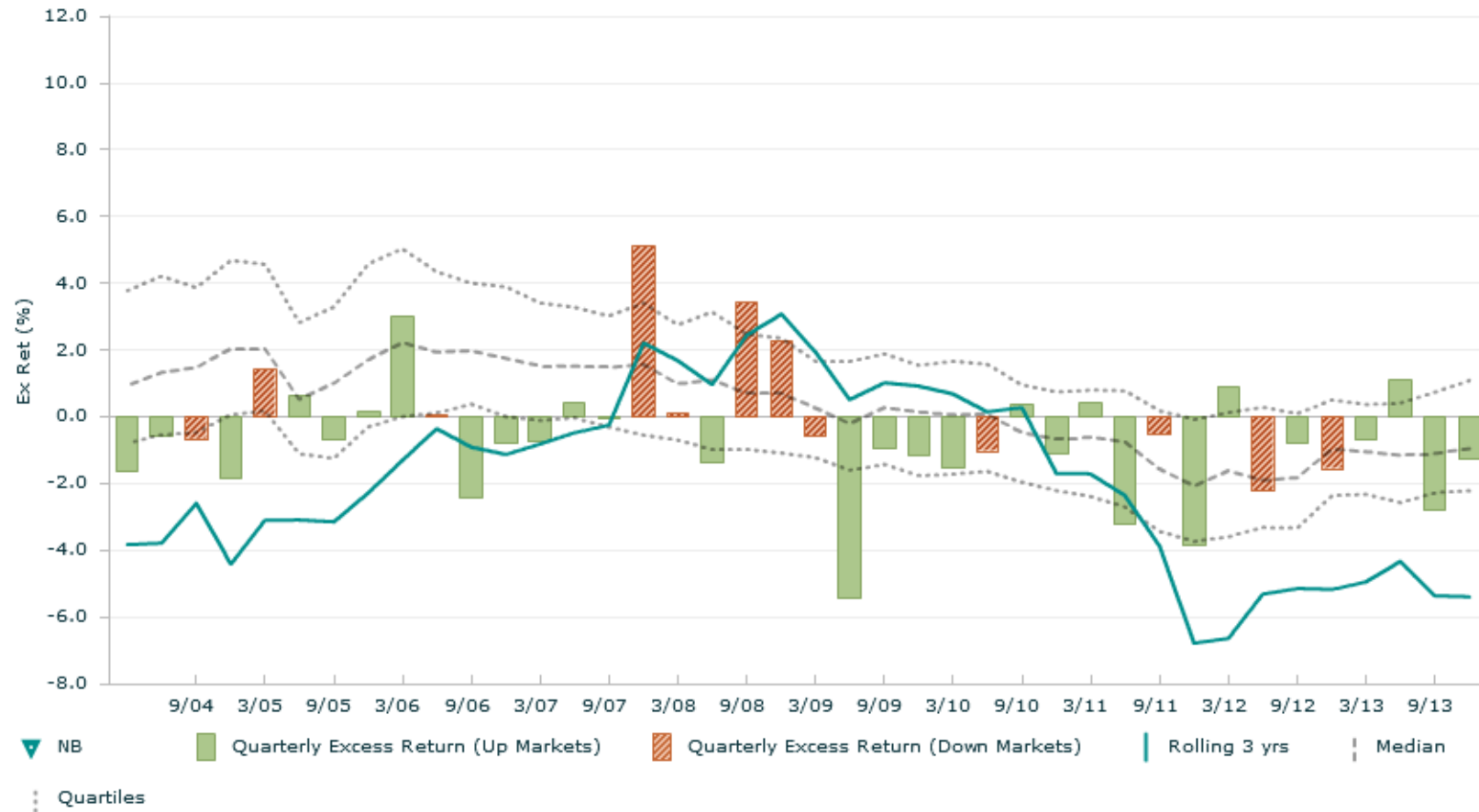
Comparison with the US Equity Large Cap Growth (Active) universe



State of North Carolina Retirement System - Neuberger - Large Cap Disciplined Growth2

Quarterly Excess Return vs. Russell 1000 Growth with rolling 3 yr line in \$US over 10 yrs ending December-13

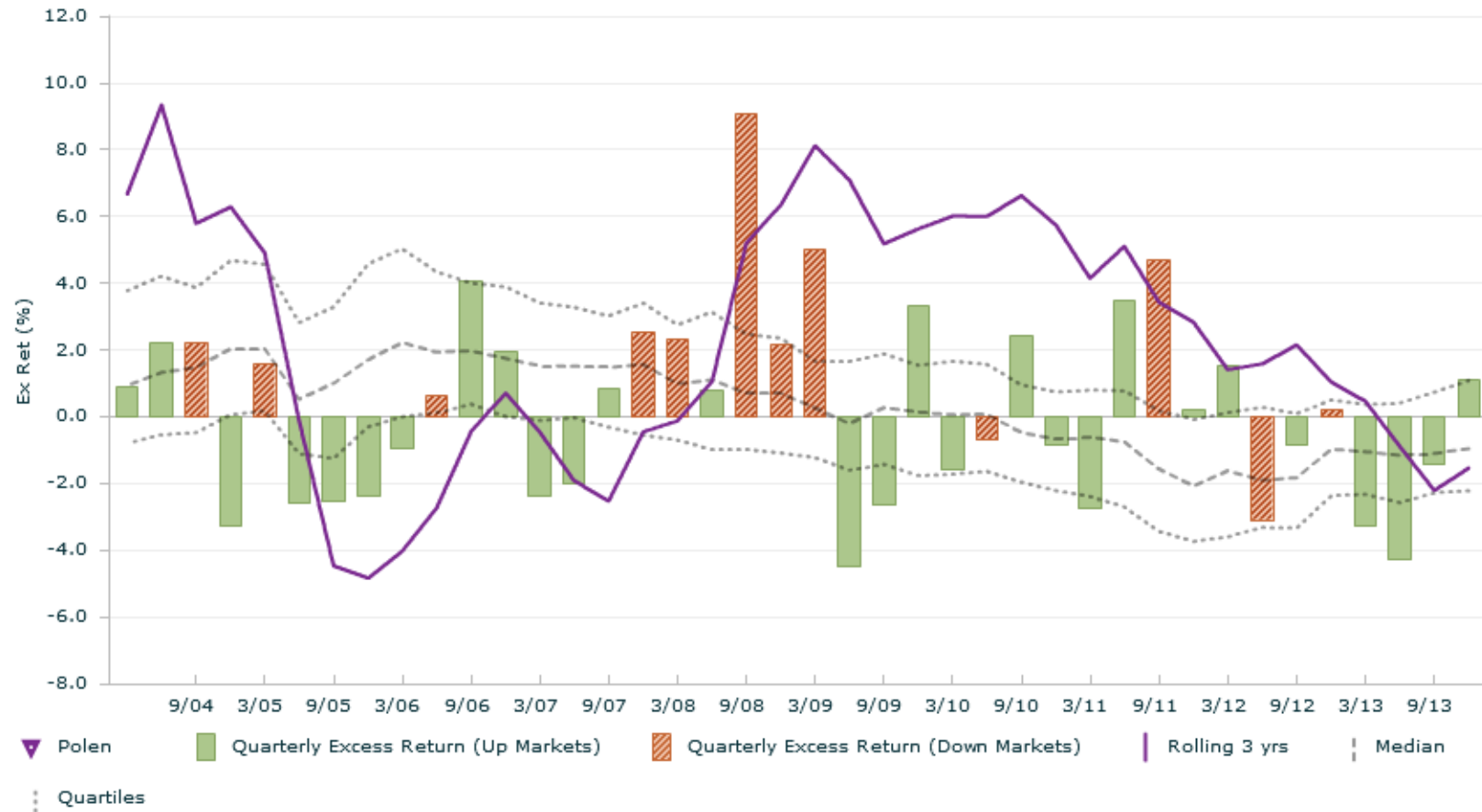
Comparison with the US Equity Large Cap Growth (Active) universe



State of North Carolina Retirement System - Polen - Large Cap Growth Equity

Quarterly Excess Return vs. Russell 1000 Growth with rolling 3 yr line in \$US (before fees) over 10 yrs ending December-13

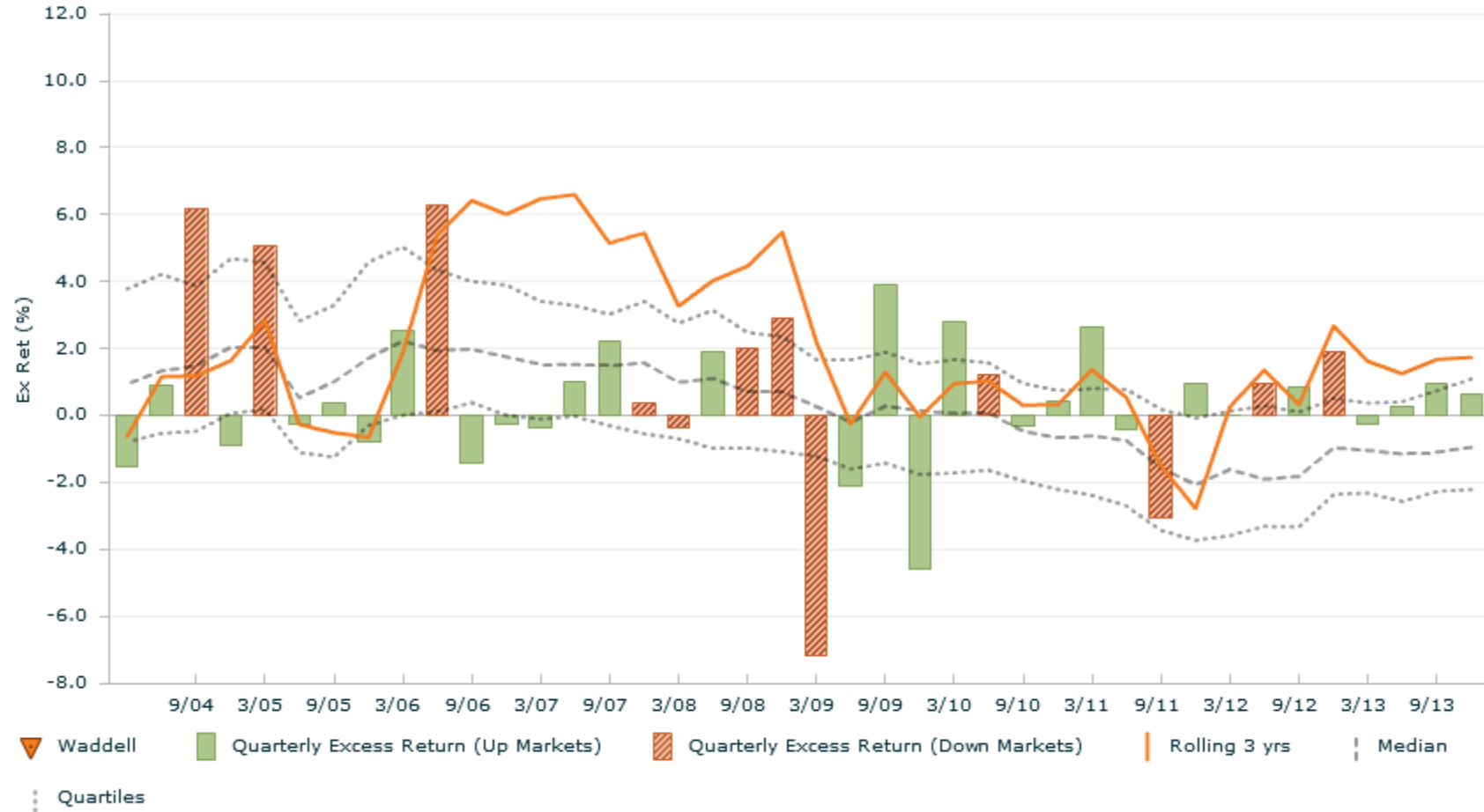
Comparison with the US Equity Large Cap Growth (Active) universe



State of North Carolina Retirement System - Waddell & Reed - Core Equity

Quarterly Excess Return vs. Russell 1000 Growth with rolling 3 yr line in \$US (before fees) over 10 yrs ending December-13

Comparison with the US Equity Large Cap Growth (Active) universe



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Correlation of Excess Returns vs. Russell 1000 Growth in \$US over 6 yrs and 2 quarters ending December-13 (quarterly calculations)

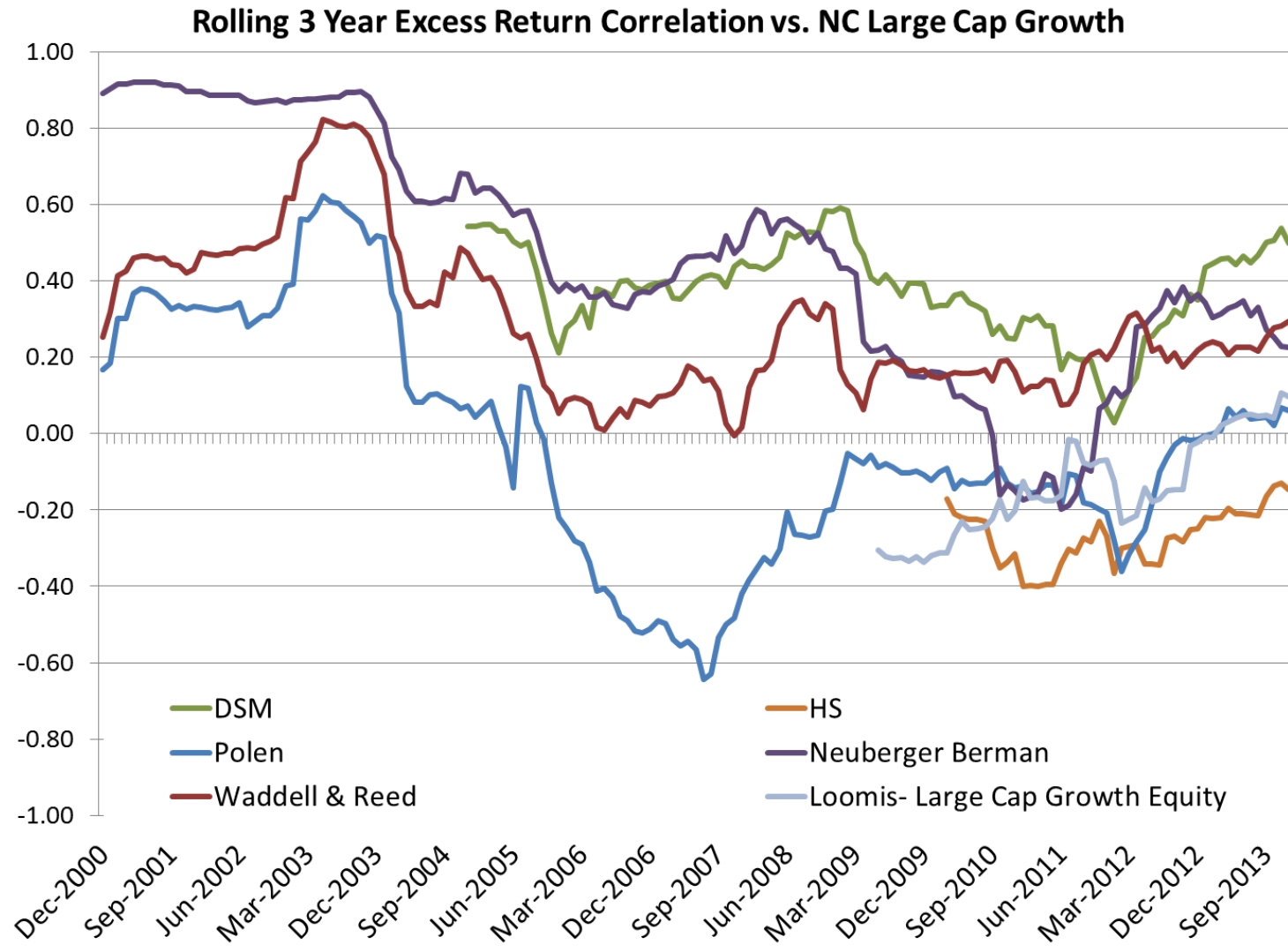
		DSM	HS	Loomis	NB	Polen	Waddell	SANLCG1	WECLCG1
DSM - Large Cap Growth Equity	DSM		-0.12	-0.02	0.06	0.13	0.29	0.24	0.27
HS - Concentrated Quality Growth Equity	HS	-1.72		0.54	0.22	0.29	0.08	-0.45	-0.47
Loomis Large Cap Growth Composite	Loomis	-1.66	-0.69		0.29	0.67	-0.08	-0.25	-0.26
Neuberger - Large Cap Disciplined Growth2	NB	-1.26	-1.05	-0.99		0.44	0.16	-0.26	0.06
Polen - Large Cap Growth Equity	Polen	-1.40	-1.13	-0.53	-0.78		-0.33	-0.08	-0.35
Waddell & Reed - Core Equity	Waddell	-0.97	-1.33	-1.73	-1.09	-2.28		-0.31	0.39
Sands - Select Growth Equity	SANLCG1	-1.38	-3.09	-2.81	-2.22	-2.40	-2.52		0.38
Wellington - Opportunistic Growth	WECLCG1	-1.11	-2.73	-2.39	-1.37	-2.67	-0.89	-1.24	

Notes:

Correlation is shown in the right hand side of the table.

Risk Reduction is shown in the left hand side of the table.

Risk Reduction is defined as the reduction in tracking error from diversification when using a 50:50 mix of the two managers.



Appendix A

Descriptions of performance exhibits

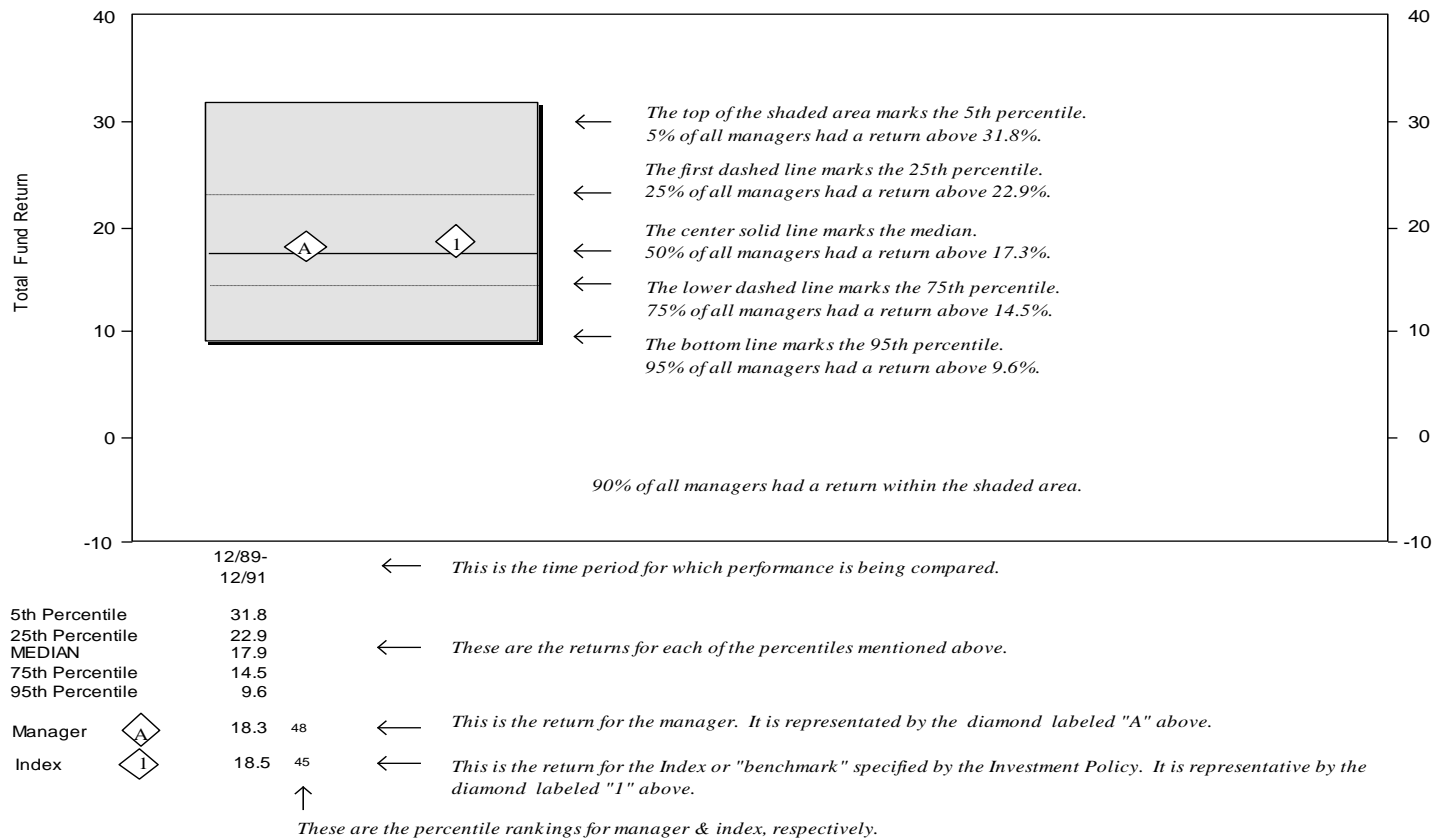
Description of Universe calculation

Mercer Manager Universes are constructed using the composite portfolios submitted by investment managers to the Research Unit for evaluation. Each portfolio is reviewed and, based on Mercer's professional judgement, placed within the appropriate universe, which contains similarly managed portfolios.

Universes are calculated by sorting the returns from highest to lowest for each unique time period independently. The highest return is assigned the rank of zero (0) and the lowest a rank of 100. Depending on the number of observations between these two points, the remaining results are normalized to create the percentile rankings.

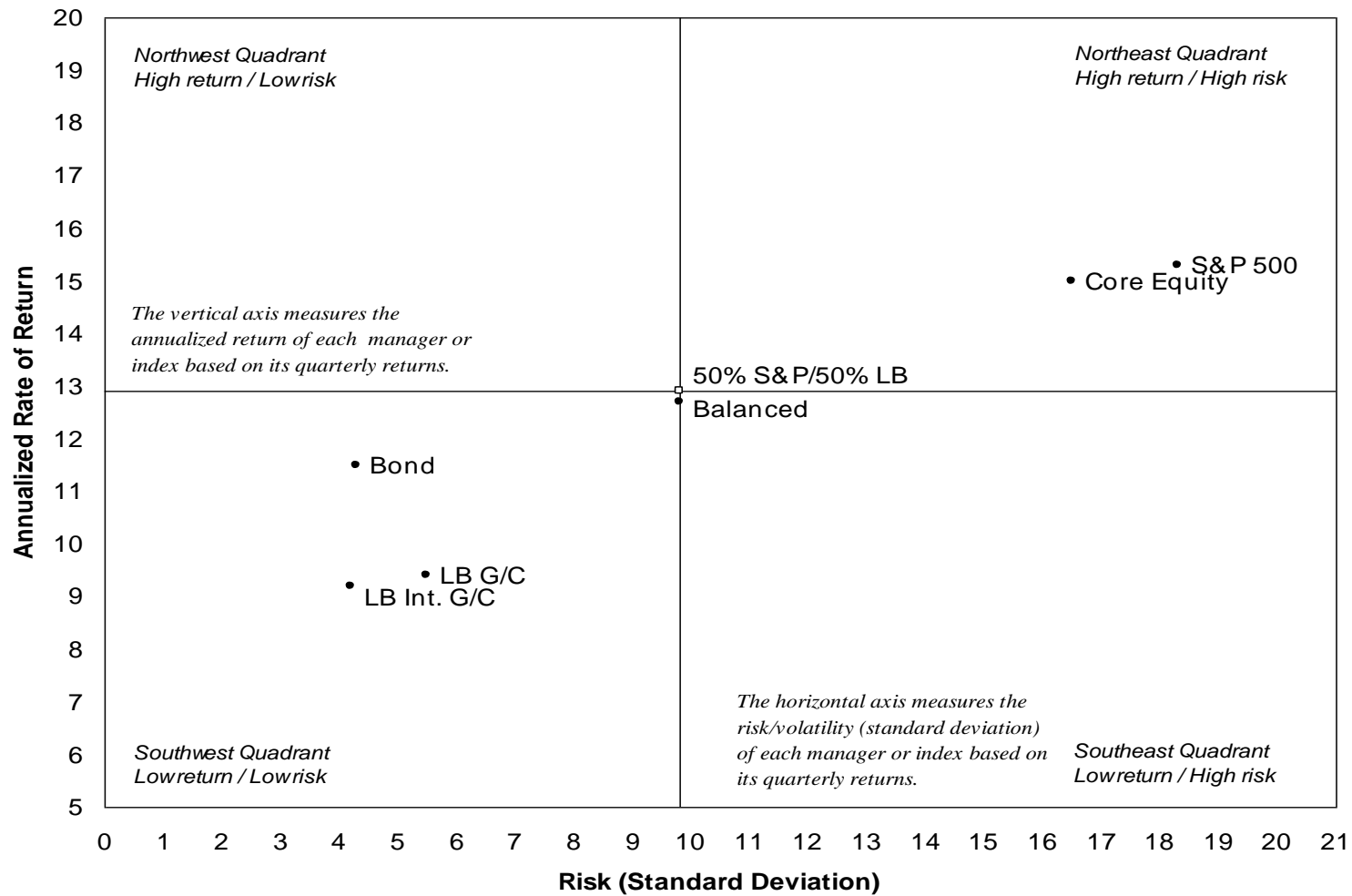
Results longer than one year are annualized.

Description of performance graph



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Appendix B

Glossary of terms

ADR American Depository Receipt is a receipt for shares of a foreign company held by a U.S. bank, facilitating receipt of dividends and simulating purchase of the stock.

Agency Bonds Debt obligations issued by government sponsored organizations such as the Federal Home Loan Bank and the Federal Land Bank. After Treasuries, agency bonds are considered to be the next highest quality securities in the domestic fixed income market.

Alpha A measure of value added provided by the manager. Specifically, alpha is the excess portfolio return compared to the risk-adjusted benchmark.

Asset Allocation The combination of assets in a portfolio to different asset types such as common stocks, bonds, cash, real estate, venture capital, etc. Different approaches to the asset allocation decision are employed such as strategic, dynamic or tactical.

Asset-Backed Security A collateralized fixed-income security which is supported by installment loans (autos, mobile homes, boats, etc.) or revolving lines of credit (credit cards). Asset-backed securities generally have AAA ratings based on recourse provisions or third-party credit enhancements. Most collateral behind asset-backed securities is subject to prepayment. However, unlike mortgage-backed securities, prepayments are virtually unaffected by changing market interest rate levels.

Association for Investment Manager Research (AIMR) An international, non-profit organization whose mission is to serve its members and investors as a global leader in educating and examining investment managers and analysts and sustaining high standards of professional conduct. AIMR's membership is global in scope, and its activities are worldwide.

AIMR Level I Verification Independent attestation that the requirements of the AIMR Performance Presentation Standards (PPS) have been met on a firm-wide basis.

Appendix B

AIMR Level II Verification Independent attestation that the performance results of specific composites have been calculated according to the AIMR-PPS standards, and that the requirements of the AIMR Performance Presentation Standards (PPS) have been met on a firm-wide basis.

Balanced (asset class) Investments in common stock, preferred stock and bonds which are combined in an effort to obtain the highest return consistent with a low-risk strategy. A balanced portfolio typically offers a higher yield than a pure stock fund and performs better than such a fund when stocks are falling. In a rising market, however, a balanced portfolio usually will not keep pace with an all-equity portfolio.

Base Currency The currency of an investor's home country.

Basic Industry A sector classification which includes securities of firms that convert raw materials into unfinished products.

Basis Point 1/100th of 1.0%, or 0.01%.

Blend An evaluation of securities using a combination of fundamental and quantitative methods.

Bottom-up A money-management style which begins with security selection.

Callable Bond A bond which can be "called" (i.e., redeemed) by the issuer at a date prior to maturity. If interest rates drop significantly below a callable bond's coupon, the issuer can call the bond and refinance it at a lower rate. From a bond investor's perspective, the proceeds received when the bond is called will have to be reinvested at a lower rate. Thus, callable bonds expose bondholders to reinvestment risk. The bond investor receives compensation for this disadvantage in the form of a higher yield.

Capital Goods A sector classification which include securities of firms that are involved in the production of other goods--industrial buildings, machinery, equipment--as well as highways, office buildings, government installations. In the aggregate such goods form a country's productive capacity.

Capitalization Market value times shares outstanding (common stock).

Cash Equivalents All fixed income securities that are highly liquid, with a known market value and a maturity, when acquired, of less than three months.

CMO Collateralized Mortgage Obligation is a security which groups mortgage pass-through bonds together and partitions the cash flows into successive maturity groups called tranches. CMOs attempt to mitigate prepayment risk by transferring the various degrees of prepayment risk among different tranches; thus, each tranche has different risk and return characteristics.

Commingled Fund An investment fund in which the manager pools the assets of several accounts to permit more efficient management and to reduce administrative cost. Also called collective investment funds, common funds or pooled funds.

Confidence Level The degree of certainty associated with a statistical measure, such as a t-statistic. In the context of this report, the confidence level provides insight into whether the manager's results were due to skill or luck. For example, with 20 or more observations, a t-statistic of 1.73 generally implies a confidence level of at least 95%; this means that there is only a 5% chance that the result was due to blind luck.

Consumer Durables A sector classification which includes securities of firms whose products, bought by consumers, are expected to last three years or more. These include automobiles, appliances, boats, and furniture. Economists look at the trend in consumer expenditure on durables as an important indicator of the strength of the economy, since consumers need confidence to make such large and expensive purchases.

Appendix B

Consumer Non-Durables A sector classification which includes securities of firms that provide consumable products such as food or drugs.

Consumer Services A sector classification which includes securities of firms that provide a service to the consumer rather than a product.

Convertible Securities These obligations include bonds, debentures, or preferred stock which may be exchanged by their owners for common stock -- usually in the same corporation. The terms which must be met to exercise this right of exchange are usually specified for each issue.

Convexity A measure of interest rate sensitivity. To demonstrate the concept, if bonds A and B have the same duration, but bond B has greater convexity, then the price of bond B will increase more than bond A if interest rates fall. Similarly, if rates increase, the price of bond B will fall less than the price of bond A. Investors who buy the price of bonds with a high degree of convexity will have to pay for convexity in the form of accepting a lower yield.

Core Style A strategy with investments in a large number of securities within a market capitalization range. Unlike an index strategy, a core strategy does try to exceed the return of the target index.

Corporates Debt obligations issued by private corporations. This type of debt instrument varies greatly in quality and liquidity as the terms of the obligation and the financial health of the issuer are factored in by the market.

Correlation Coefficient A statistical measure of the degree to which the movements of two variables are related. A correlation of 1.0 indicates that the two variables move perfectly in tandem. A correlation of 0.0 indicates a random relationship between the variables, and a correlation of -1.0 indicates perfect negative correlation (perfect tandem but in opposite directions). Combining assets in a portfolio with negative correlations or with positive correlations less than 1.0 will reduce total portfolio volatility.

Country Weighting The percentage exposure a portfolio has to the securities of a given country.

Coupon The annual rate of interest that the bond issuer promises to pay the bondholder.

CPI Consumer Price Index is a measure of the cost of a basket of consumer items. Changes in the index are generally accepted as a proxy for inflation.

Cross Hedging A cross hedge occurs when a foreign currency is hedged to another foreign currency instead of into the base currency (the U.S. dollar for U.S. investors). Managers may cross hedge when they want added currency exposure to a country.

Cross-Sectional Beta Beta is a measure of a portfolio's return volatility relative to the market (benchmark index). An estimate of the cross-sectional beta of a portfolio is a weighted average of the betas of the portfolio's component assets. A beta of 1.00 means a stock has exhibited the same volatility as the market over the period measured. A beta of 0.85 means, in general, a stock is less volatile than the market (moves 0.85% for each 1.00% move in the market) where a beta of 1.15 means a stock is more volatile than the market (moves 1.15% for each 1.00% move in the market).

Currency Hedging International managers may use currency hedges to minimize the effect of currency fluctuation against the U.S. dollar. A 100% hedge will neutralize the effect while a partial hedge will reduce the effect.

Current Yield A bond's coupon rate divided by the bond's current price.

Debt to Equity The ratio of long-term debt to total common equity.

Derivative A financial instrument whose value is "derived" from or based upon the value of other financial instruments or the level of a financial index. Also refers to financial instruments which have complex structures with option-like features. Futures, options and currency forward contracts are examples of derivatives.

Appendix B

Diversification The reduction in risk that is sought by investing in assets which are not perfectly positively correlated. Diversification is the spreading of risk among a number of different investment opportunities. Since the assets are not perfectly correlated, losses of any one asset tend to be offset by gains on other assets.

Dividend A payment to owners of common or preferred stock. Dividends are usually paid out of the current earnings of a corporation. On preferred stock shares, the dividend is usually a fixed amount. On common stock shares, the dividend will vary with the fortunes of the corporation. Dividends are usually declared and paid quarterly.

Dividend Yield The current dividend per share of a stock divided by its current price per share. For example, a stock with a price of \$100 per share paying a dividend of \$5 per share would have a dividend yield of $\$5/\$100=5\%$.

Down Market A quarter in which the market return is negative.

Duration A measure of a bond's price volatility relative to a change in the general level of interest rates, measured in years. It is a measure of the number of years until the average dollar, in present value terms, is received from coupon and principal payments. In general, bonds with longer durations have greater sensitivity to interest rates and vice versa.

Duration - Active Average portfolio duration is allowed to vary outside of a 20% range around the benchmark's duration.

Duration - Controlled Average portfolio duration is maintained within a 20% range around the benchmark's duration.

Duration - Neutral Average portfolio duration is maintained close to the benchmark's duration.

Duration - Tightly Controlled Average portfolio duration is maintained within a 10% range around the benchmark's duration.

Dynamic Asset Allocation An approach (such as portfolio insurance) where are investments hedged through the use of derivatives to theoretically limit any losses beyond a floor level.

Earnings Per Share (EPS) That portion of a company's profit allocated to each outstanding share of common stock.

Earnings Per Share Growth Rate The rate at which the earnings per share grows over various time periods.

Economic Risk The probability that economic conditions will deteriorate and thereby affect the safety of a company.

Effective Asset Allocation Tool to discern style orientation of a portfolio. The concept of effective asset allocation was introduced by Professor William F. Sharpe in 1988. Mercer has applied Sharpe's concept by developing its own version of effective asset allocation. Mercer's model regresses a minimum of five years of quarterly returns on a maximum of five various style indices. The coefficients of the linear combination are fitted using a quadratic rather than a linear program in order for the coefficients to lie within a specified range. These coefficients must sum to one, but lie between zero and one. In addition, the constant term (alpha) is omitted. The resulting coefficients are interpreted as the "effective asset allocation" of the manager's investment style. With this model, we can distinguish the investment styles of both equity and fixed income managers.

Effective Duration Also known as option-adjusted duration, a measure of how sensitive a bond's price is to interest rate changes with the option and structural characteristics of the bond taken into account.

Energy A sector classification which includes securities of firms that produce and/or sell oil, oil service, gas, solar energy, coal companies and makers of energy saving devices.

Equity Investment or ownership interest possessed by shareholders in a corporation -- stock as opposed to bonds.

Appendix B

Eurodollar Bonds A U.S. dollar denominated bond issued and traded outside the jurisdiction of the United States.

Finance A sector classification which includes securities of firms that engage in making loans to individuals or businesses.

Fixed Income Debt instruments issued by corporations, governments or government agencies characterized by a fixed interest rate and stated maturity date. These represent the terms of the arrangement between someone who borrows money and someone who lends it.

Foreign Exchange Transactions involving the purchase and sale of currencies.

Forward Market A market in which participants agree to trade some commodity, security, or foreign exchange at a fixed price at some future date.

Forward Rate The rate at which forward transactions in some specific maturity are being made, e.g., the dollar price at which Deutschmarks can be bought for delivery three months hence.

Fundamental A qualitative method of evaluating securities by attempting to measure the underlying value of a particular stock using traditional security analysis.

Growth at a Reasonable Price Style An investment style employed by investment managers who invest in companies which have superior growth prospects. However, security selection techniques try to identify those companies that are underpriced relative to other companies in the same industry or sector.

Growth Style An investment style employed by investment managers who invest in companies that have superior growth prospects. Generally, these companies have higher price to earnings and price to book ratios and lower dividend yields.

Health Services A sector classification which includes securities of firms that provide health related services or products.

Hedging Strategy used to offset investment risk.

High Yield Bonds rated BB (Ba) or lower by Standard & Poor's Corporation and Moody's Investor Service. High yield bonds are lower quality than investment grade bonds and have greater credit risk.

Historical Beta Beta is a measure of a stock's (or portfolio) return volatility relative to the market (benchmark index). A beta of 1.00 means a stock has exhibited the same volatility as the market over the period measured. A beta of 0.85 means, in general, a stock is less volatile than the market (moves 0.85% for each 1.00% move in the market) where a beta of 1.15 means a stock is more volatile than the market (moves 1.15% for each 1.00% move in the market). An estimate of the historical beta of a portfolio is based on a simple linear regression of the portfolio returns.

Information Ratio A measure of the consistency of value added by an investment manager. Specifically, the information ratio is the average alpha divided by the variability of alpha.

Intermediate-Term Bond Bonds with a maturity between three and ten years.

Investment Grade Bonds rated BBB (Baa) or higher by Standard & Poor's Corporation and Moody's Investment Services. Investment grade bonds are higher quality than high yield bonds and have lower credit risk.

Kurtosis A measure of the relative peakedness or flatness of a distribution compared to the normal distribution. Positive kurtosis indicates a relatively peaked distribution. Negative kurtosis indicates a relatively flat distribution.

Appendix B

Limited Partnership An organization made up of a general partner, who manages a project, and limited partners, who invest money but have limited liability, are not involved in day-to-day management, and usually cannot lose more than their capital contribution. Typically, public limited partnerships are sold through brokerage firms, for minimum investments of \$5,000, whereas private limited partnerships are put together with fewer than 35 limited partners who invest more than \$20,000 each.

Local Currency The currency of the same country as a security or index.

Long-Term Bond A bond with a maturity of ten years or more.

Market Average Capitalization The average market (equity) capitalization of an aggregate portfolio of equity securities weighted by the proportion of each security to the total portfolio.

Market Timing A practice whereby a manager shifts between asset classes depending on the expected performance of each class. Can include timing between stocks and cash, or an unlimited number of asset classes. (see Tactical Asset Allocation.)

Maturity The date on which the principal or stated value of a bond becomes due and payable in full to the bondholder.

Maturity Structure The distribution of bonds in a portfolio across the maturity spectrum.

Maturity Structure - Actively Managed The portfolio's distribution of bonds by maturity will vary over time in order to benefit from temporary valuation differences among maturity ranges or expected shifts in the yield curve.

Maturity Structure - Laddered Bonds held in a portfolio are evenly distributed across the maturity spectrum.

Maturity Structure - Neutral The distribution of bonds by maturity in a portfolio is similar to the benchmark.

Median Market Capitalization The middle market value in a distribution of stock holdings.

Mortgage-Backed Security A collateralized fixed income security in which a group of mortgages are pooled together and act as collateral for the issuance of the security. Depending on the specific structure of the security, some combination of principal and interest payments of the underlying mortgages are "passed through" to the security holder. Types of mortgages that serve as collateral include: level payment fixed rate mortgages, adjustable rate mortgages, balloon mortgages, and graduated payment mortgages. The majority of these securities are issued and/or guaranteed by government agencies such as GNMA (Government National Mortgage Association - "Ginnie Mae"), FNMA (Federal National Mortgage Association - "Fannie Mae"), and FHLMC (Federal Home Loan Mortgage Corporation - "Freddie Mac"). Only GNMA is an arm of the US government and as such, is backed by the full faith and credit of the US government. FNMA and FHLMC, which are government-sponsored entities, are generally recognized as AAA quality due to their close ties to the US government.

Municipal Bonds Bonds issued by a state or local government or one of its agencies to supplement tax revenues for use in operating or capital expenditures. These debt instruments come in one of two forms, general obligation bonds and revenue bonds. Typically these bonds are exempt from federal and sometimes state and local taxes.

Mutual Fund An investment fund in which the investment company raises money from shareholders and invests in stocks, bonds, options, futures, currencies, or money market securities. These funds offer investors the advantages of diversification and professional management.

Non-U.S. Dollar Bonds Bonds issued by foreign governments, corporations or other entities whose value is denominated in a currency other than the U.S. dollar. Non-U.S. dollar bonds incur currency risk to a U.S. based investor.

Peer Group A narrowly defined group of investment managers who use a similar investment style, such as value investment managers.

Appendix B

Percentile Rank Time-weighted rates of return are ranked against Mercer universes or peer groups. For example, an investment manager's return may rank at the 20th percentile of a particular Mercer universe or peer group. This indicates that 80% of the investment managers in the sample had lower performance. The highest percentile rank is 1 and the lowest is 100. Bars in graphic displays are divided by percentiles with the top of each bar denoting the 5th percentile followed by lines for the 25th, 50th (median), 75th, and 95th percentiles.

Political Risk The probability that a company will be affected by political actions.

Portfolio Turnover Volume of shares traded as a percentage of total shares currently held in the portfolio during a given period of time.

Price to Book Ratio (P/B) The current price of a stock divided by its book value per share. For instance a stock selling for \$20 a share whose book value is \$5 per share has a P/B of 4.

Price to Earnings Ratio (P/E) The current price of a stock divided by its earnings per share. For instance, a stock selling for \$20 a share that earned \$2 per share in the last 12 months has a P/E ratio of 10. Mercer excludes companies with negative earnings in its calculation.

Quality Rating A measure of a bond issuer's credit quality, or its ability to meet future contractual obligations. Two widely used bond rating systems are those of Moody's Investor Service and Standard & Poor's Corporation.

Quantitative A systematic method of evaluating securities using a model composed of ranking or rating tools.

Quartile Represents a range of twenty-five percent of the outcomes. A first quartile rank means that the manager performed in the top twenty-five percent of its peer group or universe.

Return on Equity (ROE) An amount, expressed as a percentage, earned on a company's common stock investment for a given period of time. It is calculated by dividing net income for the accounting period by common stock equity (net worth) at the beginning of the period.

Return/Risk Comparison Analysis that presents the rate of return in relation to the volatility of those returns as measured by the annualized standard deviation of quarterly returns.

Sector Biased The portfolio tends to have a concentration in a particular sector or maintains sector weightings which are significantly greater than or less than those of the benchmark's over all market environments.

Sector Neutral The portfolio's allocation among sectors is similar to that of the market.

Sector Rotation A portfolio's sector distribution will vary over time according to perceived valuation differences among different sectors and sub-sectors.

Semi Standard Deviation A measure of the downside volatility of returns.

Separate Account A single portfolio managed for a client.

Short-Term Bond A bond with a maturity less than three years.

Skewness A measure of the degree of asymmetry of a distribution around its mean. Positive skewness indicates a distribution of excess return over the benchmark with an asymmetric tail extending towards more positive values. Negative skewness indicates a distribution of excess return over the benchmark with an asymmetric tail extending towards more negative values.

Spot Market Market for immediate delivery (as opposed to future delivery). In the spot market for foreign exchange, settlement is two business days ahead.

Spot Price The current market price.

Appendix B

Standard Deviation A measure of the dispersion of a set of numbers around the average. In a regression analysis (which assumes a normal distribution), 68% of the data points fall between 1 standard deviation below the average and 1 standard deviation above.) Standard deviation is frequently used as a measure of risk (see Return/Risk Comparison).

Strategic Asset Allocation An approach where an asset allocation policy is established for the long run and the portfolio is invested at that static mix.

Systematic Risk The component of return that is associated with the broad-based market. Systematic risk is the volatility of rates of return on stocks or portfolios associated with changes in rates of return on the market as a whole.

T-Statistic Used to measure statistical significance, a t-statistic is a standardized ratio which measures how significantly far apart two measures are. To calculate the t-statistic of excess returns versus a benchmark, three measures are required: the average quarterly excess return over the benchmark, the standard deviation of quarterly excess returns and the square root of the number of observations. Divide the average excess return by the standard deviation, then multiply this ratio by the square root of one less than the number of observations.

Tactical Asset Allocation An approach where the weighting to different asset classes is changed frequently - up to several times per year - as a function of the expected performance from each asset class in the short run (see Market Timing).

Target Index Return The return derived from a portfolio invested in benchmark indices and weighted according to policy asset allocation targets.

Technology A sector classification which includes securities of firms that provide technology related services or products.

Time-Weighted Rate of Return A rate of return calculation. The time-weighted method minimizes the impact of cash flows on rate of return calculations. Time-weighted returns are an appropriate measure of an investment manager's performance, since investment managers may not have direct control over the timing or amount of cash flows directed to them.

Top-Down A money management style which begins with an assessment of the economy as a whole.

Tracking Error A measure of how much a return series deviates from its benchmark. Mercer measures the tracking error by the annualized standard deviation of quarterly excess returns.

Transportation A sector classification which includes securities of firms that provide transportation related services or products.

Treasury Securities Bonds which are direct debt obligations of the U.S. government issued by the U.S. Treasury. Backed by the "full faith and credit" of the United States, these bonds are considered among the safest of investments carrying AAA/Aaa ratings. Treasury Bills are short-term securities issued with three-month, six-month, and one-year maturities. Notes are intermediate-term obligations available in maturities of one to ten years. Bonds are long-term obligations with maturities greater than ten years.

Universe A broadly defined group of investment managers. For example, a group of equity investment managers.

Unsystematic Risk The variability not explained by general market movements.

Up Market A quarter in which the market return is positive.

Appendix B

Utilities A sector classification which includes securities of firms that own or operate facilities used for the generation, transmission, or distribution of electric energy. Utilities distribute electricity, gas and water to their customers. Utility stocks usually offer above-average dividend yields to investors, but less capital appreciation potential than growth stocks. Utility stocks are also very sensitive to the direction of interest rates. Rising interest rates tend to harm the value of utility shares because higher rates provide a more attractive alternative to investors. In addition, utilities tend to be heavy borrowers, so higher interest rates add to their borrowing costs. Conversely, falling interest rates tend to buoy the value of utility stocks because utility dividends look more attractive and because the companies' borrowing costs will be reduced.

Value Style An investment style employed by investment managers who invest in companies that appear to be undervalued relative to the market. Generally, these companies have lower price to earnings and price to book ratios and higher dividend yields.

Yankee Bonds A U.S. dollar-denominated bond issued by foreign banks and corporations in the U.S. market.

Yield Curve A graph showing the relationship between yield and maturity for a set of similar securities.

Yield to Maturity Internal rate of return on a bond bought at the current price and held to maturity. This assumes that coupon income is reinvested at the yield to maturity.

Yield to Worst The yield to maturity under the least desirable of all possible bond repayment patterns under the assumption that market yields are unchanged. If market yields are higher than the coupon, the yield to worst would assume no prepayment. If market yields are below the coupon, yield to worst would assume prepayment at the earliest call date.

Appendix C

Description of Indices

C.1 Equity Indices

American Stock Exchange

The American Stock Exchange Index (AMEX) contains issues of medium and smaller-sized companies, representing less than 5% of the market value of all U.S. stocks. The index represents all major industry groups and includes American Depositary Receipts and warrants. The index is market value-weighted.

Dow Jones Industrial Average

The Dow Jones Industrial Average (DJIA) contains 30 actively traded blue-chip stocks. The 106-year-old average is the best-known U.S. stock average. The editors of the Wall Street Journal, which is owned by Dow Jones select the stocks. All but three of the stocks are listed on the New York Stock Exchange. In October of 1999, Microsoft Corp. and Intel Corp were the first NASDAQ Stock Market stocks to be included in the DJIA. The stocks are generally leaders in their industry. The DJIA purpose is to represent US listed equities, excluding transportation and utility stocks. The Dow is a price-weighted arithmetic average.

FTSE KLD 400 Social Index

The FTSE KLD 400 Social Index (KLD400) is a float-adjusted, market capitalization-weighted, common stock index of U.S. equities. Launched by KLD in May 1990, the KLD400 (formerly KLD's Domini 400 Social Index) is constructed using environmental, social and governance (ESG) factors. The Domini 400 Social Index was renamed the FTSE KLD 400 Social Index in July 2009. It is a widely recognized benchmark for measuring the impact of social and environmental screening on investment portfolios. The index consists of 400 U.S. stocks, which are screened on factors such as military contracting, alcohol and tobacco, gambling, nuclear power, environmental management and employee relations.

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MSCI EAFE

The MSCI Europe, Australasia and the Far East (EAFE) Index is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada. The index is market value-weighted and calculated both with net and gross dividends reinvested. The index consists of approximately 1,000 securities from the following 21 countries:

Australia	Denmark	Germany	Ireland	Netherlands	Portugal	Sweden
Austria	Finland	Greece	Italy	New Zealand	Singapore	Switzerland
Belgium	France	Hong Kong	Japan	Norway	Spain	United Kingdom

MSCI EAFE (GDP-Weighted)

The MSCI Europe, Australasia and the Far East (EAFE) GDP-Weighted Index is designed to reflect the size of a country's economy rather than the size of its equity market, by using country weights based on a country's gross domestic product (GDP)..

MSCI Emerging Markets

The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The index consists of the following 22 emerging markets country indices:

Brazil	Czech Republic	Indonesia	Mexico	Poland	Thailand
Chile	Egypt	Israel	Morocco	Russia	Turkey
China	Hungary	Korea	Peru	South Africa	
Colombia	India	Malaysia	Philippines	Taiwan	

MSCI World Index

The MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The index measures the performance of stock markets in the United States, Europe, Canada, Australia, New Zealand and the Far East and currently consists of securities from the following 23 countries: The index is market value-weighted and calculated both with net and gross dividends reinvested.

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Australia	Denmark	Greece	Japan	Portugal	Switzerland
Austria	Finland	Hong Kong	Netherlands	Singapore	United Kingdom
Belgium	France	Ireland	New Zealand	Spain	United States
Canada	Germany	Italy	Norway	Sweden	

NASDAQ Composite

The National Association of Securities Dealers, a network of brokers, sponsors the NASDAQ (National Association of Securities Dealers Automated Quotation system). It is often called the OTC (over-the-counter) market. Unlike the NYSE and AMEX, the OTC has no trading floor and no auction market. It is a dealer to dealer market that operates via an electronic network.

The NASDAQ Composite Index measures all NASDAQ domestic and non-U.S. based securities. The NASDAQ Composite includes over 3,000 issues. The composite is a market value-weighted index calculated on a total return basis including dividends. The index represents many small company stocks but is heavily influenced by about 100 of the largest NASDAQ issues.

NASDAQ 100

The NASDAQ 100 Index includes 100 of the largest domestic and international non-financial companies listed on The NASDAQ Stock Market based on market capitalization. The NASDAQ 100 Index is a modified capitalization-weighted index which is designed to limit domination of the index by a few large stocks while retaining the capitalization ranking of companies. To be eligible for inclusion in the index, a stock must have a minimum average daily trading volume of 200,000 shares. Component stocks are adjusted quarterly to reflect changes in market capitalization.

New York Stock Exchange

The New York Stock Exchange Index (NYSE) is the largest equities marketplace in the world. It represents approximately 80% of the value of all publicly owned companies in America. The NYSE has the most stringent listing requirements of any stock exchange in the United States. Because of the Exchange listing requirements, the stocks tend to be larger, well established companies. The NYSE uses a specialist system of trading. The specialist brings buyers and sellers together on the Exchange floor and will buy or sell shares if there is an imbalance of orders. The index is market value-weighted and calculated on a total return basis with dividends re-invested.

Russell 1000

The Russell 1000 is intended to represent the universe of stocks in which most active equity managers invest. The index measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately 92% of the total market capitalization of the Russell 3000 Index. The index is market value-weighted and restated annually based on May 31 market capitalization rankings.

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Russell 1000 Growth

The Russell 1000 Growth Index is intended to be a benchmark for growth managers. The stocks are selected from the Russell 1000 Index, which currently contains approximately 1,000 of the largest U.S. equity stocks by market capitalization. The index includes those stocks, which have had high earnings per share growth rate, high dividends per share growth rate, high price earnings ratio, high price book ratio, and a low dividend yield relative to the market.

The Russell 1000 securities are ranked by adjusted book to price ratios and by the I/B/E/S (Institutional Brokers Estimate System) growth rate. These ranks are then normalized into common units and combined to arrive at a composite rank. A company's composite rank is then used to determine its probability of being growth or value.

Companies with probabilities of 100% growth are placed entirely in the growth index. Companies with probabilities of being partially growth and value are held in both indexes according to their probability, i.e., a company with an 80% probability of growth would have 80% of its available market cap in the growth index and 20% in the value index. Inception is 12/31/83.

Russell 1000 Value

The Russell 1000 Value Index is intended to be a benchmark for value managers. The securities are chosen from the Russell 1000 Index, which currently contains approximately 1,000 of the largest U.S. equity stocks by market capitalization. The index includes those stocks, which have a low price to book ratio, low price earnings ratio, high dividend yield and a low earnings per share growth rate.

The Russell 1000 securities are ranked by adjusted book to price ratios and by the I/B/E/S (Institutional Brokers Estimate System) growth rate. These ranks are then normalized into common units and combined to arrive at a composite rank. A company's composite rank is then used to determine its probability of being growth or value.

Companies with probabilities of 100% value are placed entirely in the value index. Companies with probabilities of being partially growth and value are held in both indexes according to their probability, i.e., a company with an 80% probability of value would have 80% of its available market cap in the value index and 20% in the growth index. Inception is 12/31/83.

Russell 2000

The Russell 2000 is intended to be a small capitalization market proxy. The index currently consists of approximately the 2,000 smallest stocks in the Russell 3000, representing approximately 10% of the total U.S. equity market. The index is restated annually based on May 31 market capitalization rankings.

Russell 2000 Growth

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The Russell 2000 Growth Index contains those Russell 2000 securities, which have a greater-than-average growth orientation. These securities generally have higher price-to-book and price-earnings ratios than those securities in the Russell 2000 Value Index.

The Russell 2000 securities are ranked by adjusted book to price ratios and by the I/B/E/S (Institutional Brokers Estimate System) growth rate. These ranks are then normalized into common units and combined to arrive at a composite rank. A company's composite rank is then used to determine its probability of being growth or value.

Companies with probabilities of 100% growth are placed entirely in the growth index. Companies with probabilities of being partially growth and value are held in both indexes according to their probability, i.e., a company with an 80% probability of growth would have 80% of its available market cap in the growth index and 20% in the value index. The index is restated annually based on May 31 market capitalization rankings. Inception is 12/31/83.

Russell 2000 Value

The Russell 2000 Value Index contains those Russell 2000 securities, which have a less-than-average growth orientation. These securities generally have lower price-to-book and price-earnings ratios than those securities in the Russell 2000 Growth Index.

The Russell 2000 securities are ranked by adjusted book to price ratios and by the I/B/E/S (Institutional Brokers Estimate System) growth rate. These ranks are then normalized into common units and combined to arrive at a composite rank. A company's composite rank is then used to determine its probability of being growth or value.

Companies with probabilities of 100% value are placed entirely in the value index. Companies with probabilities of being partially growth and value are held in both indexes according to their probability, i.e., a company with an 80% probability of value would have 80% of its available market cap in the value index and 20% in the growth index. The index is restated annually based on May 31 market capitalization rankings. Inception is 12/31/83.

Russell 2500

The Russell 2500 Index measures the performance of the 2500 smallest companies in the Russell 3000 Index, which represents approximately 16% of the total market capitalization of the Russell 3000 Index.

Russell 3000

The Russell 3000 Index currently consists of the largest U.S. company stocks by market capitalization. The Russell 3000 represents approximately 99% of the investable U.S. equity market. The index is restated annually based on May 31 market capitalization rankings.

Russell Midcap

The Russell MidCap Index measures the performance of the 800 smallest companies in the Russell 1000 which represent approximately 35% of the total market

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capitalization of the Russell 1000 index.

S&P 500

The S&P 500 index contains a representative sample of common stocks that trade on the New York and American Stock Exchanges and some over-the-counter stocks. The index represents about 86% of the market value of all the issues traded on the NYSE.

The index does not contain the 500 largest stocks. It has many relatively small companies in it because it is constructed of industry groups. Standard and Poor's first identifies important industry categories and allocates a representative sample of stocks to each group. The companies chosen to be in the S&P 500 generally do have the largest market values within their industry group.

The industry categories are grouped into ten sectors: Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Telecommunication Services and Utilities. The index is weighted by market capitalization and calculated on a total return basis with dividends reinvested.

S&P 500 Value & Growth

The S&P Value and Growth indices were developed by Standard and Poor's in conjunction with BARRA using a method developed by William F. Sharpe of Stanford University.

The stocks in the S&P 500 are ranked from the lowest to highest price-to-book ratios. Then, starting with the company with the lowest price-to-book ratio, the market capitalization of each company is added until 50% of the total market capitalization of the S&P 500 has been reached. Those companies, which fall into this group, constitute the S&P Value Index and the remaining companies comprise the S&P Growth Index.

Each index is capitalization-weighted and re-balanced semi-annually on January 1 and July 1. The indices are adjusted each month to reflect changes in the S&P 500. Companies, which are added to the S&P 500 are assigned to the Value or Growth Index, based on where their price-to-book ratio would have ranked at the most recent cut-off period.

S&P Midcap 400

The S&P MidCap 400 Index consists of 400 domestic stocks which are chosen by a committee at Standard & Poor's based on market capitalization, liquidity and industry group representation. The index is made up of companies listed on the NYSE, NASDAQ, and AMEX. None of the companies within the S&P MidCap overlap with those included in the S&P 500 index. The index is market value-weighted.

S&P Midcap Value & Growth

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The S&P MidCap Value and Growth indices were developed by Standard and Poor's in conjunction with BARRA using a method developed by William F. Sharpe of Stanford University.

The stocks in the S&P MidCap 400 are ranked from the lowest to highest price-to-book ratios. Then, starting with the company with the lowest price-to-book ratio, the market capitalization of each company is added until 50% of the total market capitalization of the S&P 400 has been reached. Those companies, which fall into this group, constitute the S&P MidCap Value and the remaining companies comprise the S&P MidCap Growth Index.

Each index is capitalization-weighted and re-balanced semi-annually on January 1 and July 1. The indices are adjusted each month to reflect changes in the S&P MidCap 400. Companies which are added to the S&P MidCap 400 are assigned to the Value or Growth Index based on where their price-to-book ratio would have ranked at the most recent cut-off period.

S&P Smallcap 600

The S&P SmallCap 600 index is designed to be a benchmark of small capitalization stock performance and an investable portfolio for passive replication purposes. S&P began development of the index by surveying active and passive small cap managers, quantitative research analysts, academics and traders to determine a small cap market value definition.

S&P converted this market capitalization range into percentiles of the entire stock market in order to account for fluctuations in performance over time. The \$600 million level converted into the 50th percentile and the \$80 million lower level became the 83rd percentile. This percentile range was used to select the index back history and is used to select future index constituents.

S&P applied the target percentile range to their Index Selection Database to create a small cap universe of 1,850 stocks. The following screens were then used to select the 600 companies: 1. Companies must trade on the New York, NASDAQ or American stock exchanges, 2. Companies must have a trading history of at least six months, 3. Stocks that do not trade on any three days during a 12-month period are removed, 4. Companies with stock prices below \$1.00 are removed, 5. Share turnover has to exceed 20% on an annualized basis, 6. Companies with 50% or more of the common shares owned by another corporation or 60% owned by insiders are removed, 7. Companies in bankruptcy or financial distress are eliminated, 8. Bid/Ask spreads calculated for 30 days must be 5% or less. The index was started on December 31, 1993, and a simulation for back history was used for returns back to January 1984.

Wilshire 4500

The Wilshire 4500 Index measures the performance of all small and midcap U.S. equities. It is constructed using the Wilshire 5000 with the companies in the S&P 500 Composite excluded. The Wilshire 4500 is a misnomer, there are actually over 5,000 companies in the index. ADRs are excluded from the index. The Wilshire 4500 exchange distribution by market value is 35% NASDAQ, 63% NYSE and 2% AMEX.

Wilshire 5000

The Wilshire 5000 Equity Index was created by Wilshire Associates in 1974 and has historical data back to December 1970. The index measures the performance of

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all U.S. headquartered equity securities with readily available price data. The Wilshire 5000 is a misnomer, there are actually over 7,000 stocks in the Index. The Wilshire 5000 exchange distribution by market value is 80% NYSE, 20% NASDAQ, and 1% AMEX. Non-domiciled US stocks, foreign issues and ADRs are excluded from the index. The index is computed on both an equal-weighted and value-weighted basis.

C.2 Fixed Income Indices

Barclays Capital Global Aggregate

The Barclays Capital Global Aggregate Index provides a broad-based measure of the global investment-grade fixed income markets. The three major components of this index are the U.S. Aggregate Index, the Pan-European Index and the Asian-Pacific Aggregate Index. The index also includes Eurodollar and Euro-Yen corporate bonds, Canadian government, agency and corporate securities, and USD investment grade 144A securities. All issues must be fixed rate, nonconvertible and have at least one year remaining to maturity.

Barclays Capital Global Treasury

The Barclays Capital Global Treasury Index covers local currency-denominated debt of 30 countries. All issues must be fixed rate, nonconvertible and have at least one year remaining to maturity.

Barclays Capital U.S. Aggregate

The Barclays Capital U.S. Aggregate Index covers the U.S. investment-grade, fixed-rate bond market and includes government and corporate bonds, agency mortgage pass-through securities, asset-backed issues, and ERISA-qualified CMBS. Price, coupon and total return are reported on a month-end to month-end basis. All returns are market value-weighted inclusive of accrued income.

Barclays Capital U.S. Intermediate Aggregate

The Barclays Capital U.S. Intermediate Aggregate Index consists of those bonds in the Government and Corporate Bond Indexes which have a maturity between one and ten years, and all Mortgage-Backed Securities and all Asset-Backed Securities within the Aggregate Index (i.e. the Aggregate Index less the Long Government/Corporate Index). The index was created to provide a broad based benchmark with a shorter duration than the Aggregate Index.

Price, coupon and total return are reported on a month-end to month-end basis. All returns are market value-weighted inclusive of accrued income.

Barclays Capital U.S. Agency

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The Barclays Capital U.S. Agency Bond Index consists of all publicly issued debt of the U.S. Government, quasi-federal corporations and corporate debt guaranteed by the U.S. Government with a minimum outstanding of \$250 million. Price, coupon and total return are reported on a month-end to month-end basis. All returns are market value weighted inclusive of accrued interest.

Barclays Capital U.S. Credit

The Barclays Capital U.S. Credit Bond Index includes bonds issued by both U.S. and Non-U.S. corporations. To qualify all bonds must be SEC registered.

The Credit Index is subdivided into pure corporate (industrial, utility, and finance, including both U.S and Non U.S. corporations) and non-corporates (sovereign, supranational, foreign agencies, and foreign local governments). The first the sectors are composed of all publicly issued, non-convertible, investment grade domestic corporate debt. Issues must have a minimum rating of Baa by Moody's Investor Service, BBB by Standard and Poor's Corporation or BBB by Fitch Investor Services. Collateralized Mortgage Obligations (CMO's) and Asset-Backed securities are not included. All issues must have a maturity of at least one year and a par amount outstanding of at least \$250 million. Price, coupon and total return are reported on a month-end to month-end basis. All returns are market value weighted inclusive of accrued interest.

Barclays Capital U.S. Government Bond

The Barclays Capital U.S. Government Bond Index is made up of the Treasury Bond Index and the Agency Bond Index. The Treasury index consists of all publicly issued domestic debt of the US Government with maturity greater than one year. Flower bonds, targeted investor notes (TINs), and state and local government series are excluded. U.S. agency debt issues include both callable and noncallable securities. The Agency index includes publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government. Global issues associated with the World Bank are included. The largest issuers are Fannie Mae, the Resolution Trust Funding Corporation (REFCORP) and the Federal Home Loan Bank System (FHLB). All issues must have an outstanding par value of at least \$250 million and a maturity of at least one year. Price, coupon and total return are reported for all sectors on a month-end to month-end basis. All returns are market value-weighted inclusive of accrued interest. The index is rebalanced monthly by market capitalization.

Barclays Capital U.S. 1-3 Year Government

The Barclays Capital U.S. 1-3 Year Government Index consists of those issues within the Government Bond Index which have a maturity greater than or equal to one year and less than or equal to three years. When an issue no longer meets the maturity criterion it is dropped from the index. All issues must have an outstanding par value greater than \$250 million.

Barclays Capital U.S. Government /Credit

The Barclays Capital U.S. Government/Credit Bond Index combines the U.S. Government and U.S Credit Bond Indices.

Barclays Capital U.S. Long Government/Credit

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The Barclays Capital U.S. Long Government/Credit Index consists of those issues within the U.S. Government/Credit Index which have a maturity greater than ten years. Price, coupon and total return are reported on a month-end to month-end basis. All returns are market value weighted inclusive of accrued interest.

Barclays Capital U.S. High Yield

The Barclays Capital U.S. High Yield Bond Index covers fixed rate, publicly issued, below investment-grade debt registered with the SEC. Eurobonds and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, 144-As and pay-in-kind bonds (PIKs, as of October 1, 2009) are also included. The bonds must be dollar denominated and nonconvertible, have at least one year remaining to maturity and an outstanding par value of at least \$150 million. The bonds must be rated high-yield (Ba1/BB+ or lower) by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only two of the three agencies rate the security, the lower rating is used to determine index eligibility. If only one of the three agencies rates a security, the rating must be high-yield. A small number of unrated bonds are included in the index; to be eligible they must have previously held a high yield rating or have been associated with a high yield issuer, and must trade accordingly.

Barclays Capital U.S. Mortgage Backed

The Barclays Capital U.S. Mortgage Backed Securities Index is composed of all 15- and 30-year fixed rate security issues backed by mortgage pools of the Government National Mortgage Association (GNMA), the Federal National Mortgage Association (FNMA), and the Federal Home Loan Mortgage Corporation (FHLMC).

Balloon securities are included in the index. The index excludes graduated payment mortgages (GPMs), buydowns, graduated equity mortgages (GEMs), project loans and manufactured homes (GNMA). Non-agency (whole loan) jumbo and 20-year securities are also excluded. The MBS universe groups over 600,000 individual fixed rate MBS pools into approximately 3,500 generic aggregates. To qualify for inclusion in the index, the aggregate must have a weighted average maturity (WAM) of at least one year and a minimum \$250 million par amount outstanding.

Barclays Capital U.S. Treasury Bond

The Barclays Capital U.S. Treasury Bond Index consists of all public obligations of the U.S. Treasury, including inflation-indexed securities. The index excludes flower bonds and foreign-targeted issues. All issues must have at least one year to maturity and a minimum amount outstanding of \$250 million. Price, coupon and total return are reported on a month-end to month-end basis. All returns are market value-weighted inclusive of accrued interest.

Barclays Capital U.S. Treasury Inflation Protected Securities (TIPS)

The Barclays Capital U.S. Treasury Inflation Protected Securities (TIPS) Index measures the performance of inflation-protected bonds issued by the U.S. Treasury. The rules for inclusion in the index are as follows:

- All bonds must be a U.S. Treasury Inflation Note.

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- The minimum amount outstanding is \$250 million.
- All bonds must be dollar denominated and non-convertible.
- All bonds must have more than 1 year to maturity.

Barclays Capital U.S. Universal

The Barclays Capital U.S. Universal Index consists of the Aggregate Index, plus dollar-denominated Eurobonds (Eurodollar Index), 144A Index, Non-ERISA CMBS Index, High Yield CMBS Index, US High-Yield Corporate Index, and dollar-denominated Emerging Markets Index. The Universal Index was designed to capture the entire portfolio management choice set of fixed-income securities issued in US Dollars.

BofA Merrill Lynch Corporate 1-3 Year

The BofA Merrill Lynch 1-3 Year Corporate Bond Index consists of all those issues in the Corporate Master Index with a maturity greater than or equal to one year and less than or equal to three years. When an issue no longer meets the maturity criterion it is dropped from the index.

BofA Merrill Lynch High Yield Master

The BofA Merrill Lynch High Yield Master Index consists of U.S. domestic and Yankee bonds which are rated less than BBB by Standard and Poor's or Baa by Moody's Investors Service but which are not in default (DDD1 or less). The issues must be publicly traded, nonconvertible and have a fixed coupon schedule. The issues must have a minimum maturity of 1 year and a par amount outstanding of at least \$100 million at the start and close of the performance measurement period. The index excludes private placements, Title II securities, equipment trust certificates, inflation linked securities, convertible bonds, deferred interest (DIB) and pay-in-kind (PIK) bonds.

BofA Merrill Lynch 1-3 Year Treasury

The BofA Merrill Lynch 1-3 Year Treasury Index consists of those issues within the Treasury Master Index which have a maturity greater than or equal to one year and less than or equal to three years. When an issue no longer meets the maturity criterion it is dropped from the index.

Citigroup 3-Month Treasury Bill

The Citigroup 3-Month Treasury Bill Index is a monthly return equivalent of yield averages which are not marked to market. The calculation methodology is as follows: 1. Obtain discount yields for current month-end and two previous month-end dates. For example the January return requires the rates at the end of January, December and November. 2. Convert the discount rates to bond-equivalent yields. 3. Compute the simple average of the bond-equivalent yields. 4. Decompose to a monthly frequency using the actual number of days in the month in a 365-day year. Inception is 12/31/77.

Citigroup Broad Investment Grade

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The Citigroup Broad Investment Grade (BIG) Bond Index measures the monthly total rate-of-return performance of the investment-grade universe of bonds issued in the United States. The BIG index includes institutionally traded U.S. Treasury (excluding inflation-indexed securities), Government-sponsored (agency and supranational), mortgage and credit (corporate) securities. For inclusion in the index, all issues must have fixed coupon rate and a minimum maturity of one year. Each issue is individually Citigroup trader priced on the bid side at month-end.

U. S. Treasury issues and mortgage pass-throughs have a required entry and exit minimum amount outstanding of \$1 billion. Credit and Government-sponsored securities must have a minimum amount outstanding of \$100 million to be included in the index and are dropped from the index if the amount outstanding falls below \$75 million. Credit bonds must be rated BBB-/Baa3 or better by either S&P or Moody's.

The index is market value-weighted. Total returns include price change, principal payments, coupon payments, accrued income and reinvestment income on intra-money cash flows. Coupon interest is put into 30-day T-bills until month-end when it is re-invested in the same issues. The index is re-weighted monthly. The inception date is December 31, 1979.

Citigroup High-Yield Cash-Pay

The Citigroup High-Yield Cash-Pay Index measures the performance of below investment-grade bonds issued in the United States. All of the bonds are publicly placed, have a fixed coupon and are nonconvertible. For inclusion in the index, an issue must have a minimum maturity of 1 year and a minimum amount outstanding of \$100 million. The maximum quality rating allowed is BB+/Ba1 by either S&P or Moody's. The index includes only cash-pay bonds. Deferred-interest and issues are excluded. The inception date is December 31, 1988.

Citigroup High-Yield Market

The Citigroup High-Yield Market Index captures performance of below investment-grade corporate bonds issued in the United States. All the bonds are publicly placed, have a fixed coupon and are nonconvertible. For inclusion in the index, an issue must have minimum maturity of 1 year, a minimum amount outstanding of \$100 million per issue when the issuer has a minimum of US\$400 million total outstanding debt that qualifies for inclusion, or US\$200 million minimum outstanding per issue when the issuer does not meet the US\$400 million minimum.. The maximum quality rating allowed is BB+/Ba1 by both S&P and Moody's. The index includes cash-pay and deferred-interest bonds. Defaulted issues are excluded. When an issuer misses or expects to miss an interest payment, or enters into Chapter 11, the corresponding bonds exit the index at month end, reflecting the loss of the coupon payment or accrued interest. The index inception date is December 31, 1988.

Citigroup High-Yield Market 7+ Year Index (formerly Composite High Yield)

The Citigroup High-Yield Market 7+ Year Index measures the performance of below investment-grade bonds issued in the United States. All of the bonds are publicly placed, have a fixed coupon and are nonconvertible. For inclusion in the index, an issue must have a minimum maturity of 7 years and a minimum amount outstanding of \$100 million. The maximum quality rating allowed is BB+/Ba1 by either S&P or Moody's. The index includes cash-pay and deferred-interest bonds. Defaulted issues are excluded. The inception date is December 31, 1984.

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Citigroup World Government Bond

The Citigroup World Government Bond Index is designed to provide a measure of performance of fixed-rate securities in the world government bond market. Country eligibility is determined based on market capitalization and inevitability criteria. A market's eligible issues must total at least US\$20 billion, DM30 billion, and 2.5 trillion for three consecutive months for the market to be considered eligible for inclusion.

The index includes only Sovereign debt issued in each domestic market in the local currency. Foreign and Eurobonds are excluded from the index. Government securities that are floating- or variable-rate bonds, securities aimed principally at non-institutional investors or private placement-type securities are also excluded from the index. All issues must have a maturity of at least 1 year. The minimum amount outstanding required for index inclusion varies by each country since a local currency standard is used to determine eligibility. In the United States, the required minimum for each issue is \$5 billion public amount outstanding. The returns are calculated monthly in local currency, U.S. dollar terms and in non-base currency for each country and on a combined basis. The index is also available on a hedged-basis.

The index includes bonds from the following 23 countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Malaysia, Netherlands, Norway, Poland, Portugal, Singapore, Spain, Sweden, Switzerland, United Kingdom, and United States

Citigroup World Government Bond (Currency-Hedged)

The Citigroup World Government Bond (Currency-Hedged) Index is designed to provide a measure of performance of fixed-rate securities in the world government bond market. The index includes only Sovereign debt issued in the domestic market in local currency. Foreign and Eurobonds are excluded from the index. Government securities that are floating- or variable-rate bonds, securities aimed principally at non-institutional investors or private placement-type securities are also excluded from the index. All issues must have a maturity of at least 1 year.

The minimum amount outstanding required for index inclusion varies by each country since a local currency standard is used to determine eligibility. In the United States, the required minimum outstanding is \$5 billion. The returns are calculated by using a rolling one-month forward exchange contract as a hedging instrument.

The index includes bonds from the following 23 countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Malaysia, Netherlands, Norway, Poland, Portugal, Singapore, Spain, Sweden, Switzerland, United Kingdom, and United States

CS First Boston High Yield

The CS First Boston High Yield Index is constructed to mirror the public high yield debt market. Issues must be BB rated by either Moody's or Standard and Poor's (Split BBB rated securities are included). New issues with par amounts greater than \$75 million are automatically added to the index at the time of issuance. There are no more than two issues of any one issuer. Fallen Angels with market values greater than \$75 million are added to the index three months after being downgraded. Defaulted issues are included after a company misses an interest and/or principal payment and defaults on its obligation, or when one or both Moody's and/or Standard and Poor's issue a D rating on an issue.

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U.S. 91 Day Treasury Bill

The U.S. 91 Day Treasury Bill Index is based on the monthly auction average yield of the 91-Day Treasury Bill reported in the Federal Reserve Bulletin.

C.3 Real Estate Indices

FTSE NAREIT Equity Index

The FTSE NAREIT Equity Index is designed to provide the most comprehensive assessment of overall REIT industry performance, and includes all tax-qualified REITs with common shares that trade on the New York Stock Exchange, the American Stock Exchange or the NASDAQ National Market List. Companies with shares that trade on the NASDAQ Small Cap List or that trade over the counter are not included.

NCREIF Property Index

The National Council of Real Estate Investment Fiduciaries (NCREIF) and the Frank Russell Company NCREIF jointly developed the NCREIF Property Index. NCREIF is a non-profit association, which represents the institutional real estate industry. The NCREIF contributors include banks, insurance companies and independent advisors. Beginning with the first quarter of 1995, NCREIF has produced the index entirely on its own.

The purpose of the index is to serve as a benchmark for performance measurement of real estate owned by tax-exempt institutions and held in a fiduciary environment. The index tracks the income, appreciation and total return for a portfolio of unleveraged, institutional quality property. Sub-indices track the performance of five different property types (office, retail, industrial, hotel and apartment) within four geographical areas (east, west, south and midwest).

The property in the index must be investment grade, non- agricultural, income-producing property. Developmental property is excluded. Qualifying properties are added to the database quarterly. Properties, which are sold, are deleted during the quarter in which the sale takes place (historical data remains). Returns are calculated quarterly on a pre-management fee basis. Each property return is weighted by its market value. The property market value is determined by real estate appraisal methodology, consistently applied.

C.4 Other Indices

Consumer Price Index (CPI-U)

The Consumer Price Index (CPI-U) is published by the United States Department of Labor, Bureau of Labor Statistics. The index measures the average change in prices over time of a fixed basket of goods and services. The CPI-U calculates this price change for all urban consumers.

Appendix C

All urban consumers is defined as all wage earners, clerical workers, professional, managerial and technical workers, the self-employed, short-term workers, the unemployed, retirees and others not in the labor force. The index does not include persons in the military services, institutions or people outside the urban area. The CPI-U covers approximately 80% of the total non-institutional civilian population.

The Consumer Price Index (CPI-U) is based on prices of food, clothing, shelter, fuels, transportation fares, medical fees drugs, and other day-to-day living expenses. Prices are collected in 88 urban areas across the United States from about 57,000 housing units and 19,000 department stores, supermarkets, hospitals, gas stations and other stores and service establishments.

The manner by which the index is created by calculating price changes of the various items in each location. These price changes are averaged together with weights, which represent the importance in the spending of the appropriate population group. The local data is then combined to obtain the U.S. city average.



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