

STATE TREASURER OF NORTH CAROLINA DALE R. FOLWELL CPA ale T. Folund CPA

MEMORANDUM

SUBJECT:	Discussion/Action: NC 401(k)/457 Plans - NC International Fund and NC International Index Fund Recommendation
DATE:	May 17, 2021
FROM:	Loren de Mey, Assistant Investment Director
TO:	Supplemental Retirement Board of Trustees

Background

At the February 27, 2020 Board meeting, the Supplemental Retirement Board of Trustees approved the following changes to the two international equity funds in the NC 401(k) and NC 457 Plans:

- Changing the benchmark for the passive NC International Index Fund and the NC International Fund from the MSCI ACWI ex-US to the MSCI ACWI ex-US IMI (Investable Market Index) in order to include International Small Cap Equity;
- 2. Conducting a search for one or two International Small Cap Equity managers to be included within the NC International Fund.

IMD worked with Callan to screen the universe of international small cap equity managers. Managers were initially screened on assets under management, performance, and risk. The initial list was reviewed with IMD and a semi-finalist list was selected based on firm stability, strength of team and process, and risk-adjusted performance. After reviewing a detailed search report prepared by Callan, including quantitative and qualitative analysis of ten investment managers, five managers were selected as finalists. IMD conducted video calls with the five finalists to review their organization, investment team and investment process. Ultimately, two investment managers advanced to the final due diligence stage which included a virtual due diligence meeting.

Given Covid and the restrictions on travel, IMD Staff conducted several virtual due diligence meetings with the two recommended investment managers, Acadian and WCM. In addition to the due diligence meetings, IMD reviewed firm materials including ADVs Parts I and II, due diligence questionnaires, manager presentations, and performance and risk statistics of the strategy. Callan had previously performed an onsite meeting with both Acadian and WCM.

Recommendation

- 1. Retain BlackRock as the manager for the NC International Index Fund which will be benchmarked to the MSCI ACWI ex-US IMI Index. There will be no changes to the investment management fee which will remain at 0.021%.
- 2. Allocate a 14% target allocation to International Small Cap within the NC International Fund to match the Small Cap exposure within the MSCI ACWI ex-US IMI benchmark.
- 3. Allocate the 14% in International Small Cap to two investment managers to be included within the NC International Fund: Acadian for the International Small Cap Value mandate with a 7%



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target allocation and WCM for the International Small Cap Growth mandate with a 7% target allocation or approximately \$160 million each. The funding for these two mandates will come from decreasing the target allocations to the current managers within the NC International Fund from 50% to 43% each.

Adding an International Equity Small Cap mandate to the International Equity white label fund will add diversification and additional alpha opportunities to the fund. The Acadian strategy has a value focus and will be a strong complement to the other prospective manager, WCM, which has a growth focus.

Proposed Target Allocations:

43% International Mid/Large Cap Growth: Baillie Gifford

- 43% International Mid/Large Cap Value: Mondrian
- 7% International Small Cap Growth: WCM
- 7% International Small Cap Value: Acadian

Acadian Asset Management: International Small Cap Value Manager

Acadian was ultimately selected as the preferred Value manager given the strength of their investment process and long-term track record. Additionally, Acadian has a strong organization with dedicated resources across the firm, including a depth of resources within their back office, trading and compliance groups.

The key reasons supporting this recommendation include:

- 1. Proven track record;
- 2. Deep and experienced quantitative investment team;
- 3. Disciplined and objective investment process; and
- 4. Strength of the organization.

Organization

Acadian Asset Management was founded in 1986 and reorganized into the current LLC structure in 2007. As of 12/31/20, Acadian managed \$95.8 billion in total assets across domestic and international equity. Acadian is head-quartered in Boston with additional offices in Singapore, Australia, and the UK. Acadian manages systematic, risk-controlled, value-tilted portfolios on behalf of institutional clients globally.

Acadian is a subsidiary of BrightSphere Affiliate Holdings, which is an indirect wholly owned subsidiary of U.S.-based BrightSphere Investment Group, publicly listed on the NYSE. Campbell Global is also an affiliate of BrightSphere. The firm recently announced their intention to sell three affiliates including Thompson, Siegel, and Walmsley, Investment Counselors of Maryland and Landmark Partners. BrightSphere began as United Asset Management (UAM) which was purchased by Old Mutual in 2000. UAM was then renamed Old Mutual Asset Management US. In March 2018, the company was rebranded as BrightSphere Investment Group. Given BrightSphere has been actively divesting from several of their affiliates in recent months, they may be looking for additional divestment opportunities, potentially including the sale of Acadian. There is always a concern with a change in ownership; however, the senior management of Acadian will have the right to approve any buyer. If a sale were to occur, this should help them to find a strong, strategic partner. The change in ownership could also open up additional opportunities for employee ownership.



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Investment Philosophy and Process

Acadian believes that markets are inefficient and that such inefficiencies are caused in part by behaviorally based mispricing. Acadian applies fundamental insights in a systematic manner to attempt to exploit mispricing and to find attractive stock opportunities.

Acadian's investment philosophy is founded on the following principles:

- 1. Markets are inefficient because many investors do not always act rationally.
- 2. Investors have mental models of how stock prices are set, but these frequently change due to both external and internal (psychological) factors.

Therefore, they believe that value-added is best generated by the following:

- 1. Knowing the value of different pieces of information at different points in time in an objective, quantified and disciplined way;
- 2. Applying these investment insights to a broad opportunity set;
- 3. Employing dynamic investment strategies adapted to the current market environment; and
- 4. Utilizing a disciplined, systematic stock selection process.

Acadian's technology and data analysis allows them to evaluate and project expected returns, risk, and transaction costs for approximately 33,000 stocks in their ACWI ex-US Small Cap universe. The return forecasting process begins with a quantitative assessment of all stocks in the universe on a broad range of factors. Acadian runs a quantitative assessment, simultaneously from a stock-specific perspective to attempt to predict how each stock will perform relative to its region, industry and peers - from a peer perspective to gain additional insight through non-obvious peer similarities, and from a top-down macro perspective in an attempt to predict how each stock's country, industry group, and country/industry intersection will perform relative to their market peers.

Acadian uses a wide range of more than 100 quantitative factors focused on valuation, earnings, quality, and price movements. At the peer level, Acadian applies factors focused on peer fundamentals (value and quality), peer growth, and peer momentum. At the top-down level, Acadian utilizes factors related to valuation, risk, growth, technical and economic indicators. The final step is to combine their stock-specific, peer and top-down macro forecasts to get a holistic total return forecast. These forecasts are updated after the close of each regional market.

The stock forecasts combined with transaction costs and risk estimates, flow into a portfolio optimization system used to build portfolios. Stock specific factors include valuation, quality, growth and technical. The optimization system seeks to produce a portfolio with the highest return forecast relative to benchmark risk, net of transaction costs. Less attractive stocks are sold from the portfolio while more attractive stocks are purchased. All portfolios are reviewed by members of the Portfolio Management and Portfolio Construction teams before trading. Once reviewed and approved, trade orders are then released to the market.

Performance

Acadian has outperformed its benchmark, the MSCI ACWI ex-US Small Cap, for each trailing time period below.



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Acadian International Small Cap Equity Performance (net performance as of 3/31/2021)

	Q1 2021	1 Year	3 Year	5 Years	7 Years	Inception*
Acadian Intl Small	10.7	76.3	8.0	13.7	9.0	8.0
Сар						
MSCI ACWI ex-US	5.5	69.8	6.6	10.4	6.7	6.3
Small Cap						

*Composite inception date: July 2008

Acadian International Small Cap Equity Calendar Year Performance (net performance)

	2020	2019	2018	2017	2016	2015
Acadian Intl Small Cap	17.7	20.4	-18.5	37.8	8.4	2.3
MSCI ACWI ex-US Small Cap	14.2	22.4	-18.2	31.6	3.9	2.6

	2014	2013	2012	2011	2010
Acadian Intl Small Cap	-1.9	24.9	24.5	-15.1	28.6
MSCI ACWI ex-US	-4.0	19.7	18.5	-18.5	25.2
Small Cap					

Fees

The Acadian separate account will have a tiered fee schedule based on total assets managed in the account. For an account size of \$160 million, the fee will be approximately 0.64%.

According to Callan's database, the median expense for an International Small Cap Equity mandate of this size is 0.85%. The fees for participants within the International Equity white label fund will increase from 0.32% to 0.37% with the addition of the two recommended International Small Cap Equity managers.

Additional performance and risk statistics are in the Appendix

WCM Investment Management: International Small Cap Growth Manager

Staff recommends hiring WCM Investment Management to manage a separate account for an International Small Cap Growth Equity mandate within the NC 401(k) and NC 457 Plans. The key reasons supporting this recommendation include:

- 1. Proven track record with attractive upside and downside capture;
- 2. Deep and experienced investment team;
- 3. Disciplined investment process; and
- 4. Strength and culture of the organization.

Organization

WCM Investment Management, LLC, established in 1976 and based in Laguna Beach California provides equity portfolio management across Growth, Value, Domestic, Global, and International strategies. The firm also has offices in Denver, Cincinnati, and St. Louis. Natixis IM holds a minority interest of 24.9% in WCM. The remaining ownership is spread across 34 employees, with the two co-CEOs, Paul Black and Kurt Winrich, owning 18.8% each. Although Natixis provides WCM with a global distribution relationship, the operations and management of WCM are completely separate and



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independent of Natixis and its affiliates. The firm is committed to materially broadening the firm's ownership across their own employees. Natixis also has an ownership interest in Loomis Sayles, which manages a Large Cap Growth strategy for the Supplemental Retirement Plans.

WCM has a flat, team-oriented organizational structure. Just as WCM seeks to own companies with superior corporate cultures, they strive to be a company with a superior corporate culture. The firm has employed a full-time Chief Culture Officer to ensure their culture remains one of their key competitive advantages.

Investment Philosophy and Process

WCM's investment philosophy rests on four principles including structural differentiation, competitive advantage, company culture, and a focused portfolio.

- 1. Structural differentiation WCM believes that in order to outperform a benchmark, a portfolio has to be meaningfully different from the benchmark. The team's requirement for simple to understand, high quality, consistently profitable companies tends to lead them into traditional growth sectors including technology, health care and consumer companies.
- Competitive Advantage WCM requires each prospective company to possess a durable and improving competitive advantage. WCM focuses on the trajectory of a company's competitive advantage. Likewise, if a company is no longer improving its competitive advantage, then it should be sold.
- 3. Company Culture WCM views corporate culture as important to the long-term success of any enterprise. When evaluating companies, they work to understand the DNA of the company. This includes the strength, quality, and trustworthiness of management.
- 4. Focused Portfolio The team employs a focused approached to investing. The International Small Cap strategy typically holds approximately 50-70 stocks. The team prefers to hold a lot of a good company rather than a little bit of an average one. They do not want to dilute the portfolio with inferior ideas.

Additional principles include the following:

- 1. Reasonable valuation WCM starts by owning simple to understand businesses with low or no debt and relatively predictable cash flow generation. They then employ various valuation methods that are industry or name specific. This supports the team's focus on downside protection.
- 2. Temperament Temperament includes discipline, patience, and the ability to look through the short term to the long term with the ability to buy when others are selling and sell when others are buying.

The team strives to mitigate risk focusing their attention on downside protection, low volatility, and low turnover.

WCM focuses on each company's business model, its corporate culture, management, and its valuation. With a targeted time horizon of three plus years, the portfolio will have relatively low turnover. The projected annual turnover will average about 30% and range from 25-40% (not including the impacts of mandatory \$10 billion market cap sells).

WCM exploits the inefficiencies of international small cap indices with a traditional growth bias, seeking select quality growth businesses from conventional growth sectors. Once the team disqualifies businesses based on hurdles for size, growth, profitability, financial health, tailwind, competitive advantage, and culture, there are approximately 300 companies in the world that meet their criteria.



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The team's initial criteria include the following:

- 1. Market Cap greater than \$400 million and below \$7 billion;
- 2. Financial strength;
- 3. Focus on companies offering more predictable growth;
- 4. High or rising returns on invested capital;
- 5. Low or no debt (typically look for a net debt / ebitda ratio of about 2.5x);
- 6. High and rising operating margins; and
- 7. History of consistent and sustainable growth.

From the team's narrowed universe of about 300 companies, they are actively following about 150 names for consideration.

WCM will own traditional growth sectors including Technology, Health Care and Consumer Discretionary. WCM expects the sectors they own to benefit from the increased spending of the emerging middle class around the world. The strategy may outperform during a flight to quality given their focus on quality and management. The strategy is expected to underperform in a market that favors highly leveraged or beaten down names. The strategy may also underperform during a financials, basic materials or energy boom.

WCM's International Small Cap Growth Investment Strategy Group, consisting of Greg Ise and Sanjay Ayer, makes all portfolio decisions. Split decisions will result in no action.

Performance

The WCM International Small Cap Growth strategy has outperformed its benchmark in the one-year, five-year, and since inception trailing time periods. Over the most recent five years, the strategy has participated in 175% of the upside return of the MSCI ACWI ex US Small Cap and only 73% of the benchmark return in down markets, providing solid downside protection.

	Q1 2021	1 Year	3 Year	5 Years	Since
					Inception
WCM Intl Small Cap	-0.1	97.7	24.2	23.9	23.3
Growth					
MSCI ACWI-Ex US	5.5	69.8	6.6	10.4	8.8
Small Cap					

WCM International Small Cap Equity Performance (net performance as of 3/31/2021)

*Composite inception date: 12/31/14

WCM International Small Cap Equity Calendar Year Performance (net performance)

	2020	2019	2018	2017	2016	2015
WCM Intl Small Cap	57.4	45.1	-10.7	42.9	0.4	26.4
Growth						
MSCI ACWI Ex-US	14.2	22.4	-18.2	31.6	3.9	2.6
Small Cap						



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Fees

Investment Management Fees: 0.70%

According to Callan's database, the median expense for an International Small Cap Equity separate account is 0.85%.

The fees for participants within the white label fund will increase from 32 basis points to 37 points with the addition of the two recommended International Small Cap Equity managers (WCM and Acadian).

Additional performance and risk statistics can be found in the Appendix.



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Appendix A: Acadian and WCM Performance – gross of fees, through March 31, 2021

Returns

for Periods Ended March 31, 2021

Group: Callan International Small Cap



Statistics

for 5 Years Ended March 31, 2021 Group: Callan International Small Cap

1 2 3 4 5 6		50) C (1	C (45) 56) • A (1)		A (8)
	Standard	Alpha	Beta	Tracking	Informatio	Sharpe
	Deviation			Error	Ratio	Ratio
10th Percentile	24.46	3.67	1.05	7.93	0.79	0.58
25th Percentile	23.38	1.94	1.03	5.71	0.38	0.49
Median	22.72	0.26	1.00	4.58	0.06	0.41
75th Percentile	21.66	(0.69)	0.95	3.79	(0.15)	0.36
90th Percentile	20.71	(2.65)	0.91	3.24	(0.50)	0.27
Acadian:All Cntry Wrld exUS Sm Cp •	A 22.16	4.13	0.98	4.05	1.00	0.61
WCM:Intl Sm Cap Growth Fd 🔸	B 28.21	12.60	1.15	12.03	1.06	0.83
MSCI:ACWI ex US Small Cap	C 22.38	0.00	1.00	0.00	0.00	0.41





Statistics relative to MSCI:ACWI ex US Small Cap for 5 Years Ended March 31, 2021 Group: Callan International Small Cap





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Appendix B: Hypothetical performance of the NC International Fund with the addition of the two recommended International Small Cap managers, the NC International Fund with the addition of utilizing a passive option for the Small Cap allocation and the overall benchmark, the MSCI ACWI ex-US IMI

Returns

for Periods Ended March 31, 2021

Group: Callan Non-US All Country Broad Equity



Returns for Calendar Years 7 1/4 Years Ended March 31, 2021 Group: Callan Non-US All Country Broad Equity

50-						(0.5)		
30-		A	A (39) 🚰 B	(39) (43)	A B C	(35) (42) (64)		
10-	B	48 B 48 C	(52) C (59)	(71)		A B	(20) (21) A	47) A (28
(10)-	С	(50)		1	(34) (42)	С	(27) – B C	63 E (3) (86) C (5)
(30)-				С	(44)			
	1 Qtr.	2020	2019	2018	2017	2016	2015	2014
	2021							
10th Percentile	8.45	28.53	31.81	(11.70)	36.97	7.66	3.51	0.97
25th Percentile	6.36	21.91	29.03	(13.19)	32.55	4.74	1.26	(1.35)
Median	3.78	15.32	24.86	(15.27)	29.06	2.11	(0.95)	(3.23)
75th Percentile	1.80	7.23	20.99	(16.86)	26.48	(0.34)	(3.28)	(5.18)
90th Percentile	(0.72)	3.65	18.53	(17.90)	23.27	(3.93)	(6.15)	(7.81)
Hypothetical Intl Option+SC active 🔹 A	3.98	17.69	27.54	(13.80)	31.14	5.95	(0.69)	(1.48)
Hypothetical Intl Option+SC passive 🔹 B	3.98	14.60	26.05	(14.48)	29.80	5.78	(2.21)	(1.69)
MSCI:ACWI ex US IMI 🔳 C	3.77	11.12	21.63	(14.76)	27.81	4.41	(4.60)	(3.89)



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Statistics

for 5 Years Ended March 31, 2021 Group: Callan Non-US All Country Broad Equity



Statistics relative to MSCI:ACWI ex US IMI for 5 Years Ended March 31, 2021



Callan

May 27, 2021

North Carolina Supplemental Retirement Plans

International Equity Structure Recommendations

Elizabeth Hood, CFA Senior Vice President and Manager

Weston Lewis, CFA, CAIA Senior Vice President

Current and Future Structure Decisions

NC SRP International Equity Fund

What is the current structure?

- The NCSRP International Equity option currently consists of the following target allocation:
 - 50% Baillie Gifford, a growth-oriented manager benchmarked to the MSCI ACWI ex-US Index
- 50% Mondrian, a value-oriented manager benchmarked to the MSCI ACWI ex-US Index

What has the Board approved?

- On February 27, 2020 the Board approved the following:
 - Changing the international equity funds' benchmark from the MSCI ACWI ex-US Index to MSCI ACWI ex-US IMI Index
 - Adding one or two international small cap managers to the active NC International Fund to increase manager diversification and maximize the potential for excess returns
- The Board engaged Callan to work with NCSRP staff in conducting a search for managers to implement these decisions

What decisions remain?

- Approve transition of the NCSRP International Index Fund strategy from BlackRock MSCI ACWI ex-US to BlackRock MSCI ACWI ex-US IMI
- Approve the target allocation to international small cap within the NCSRP International Fund
- Determine how to implement the small cap allocation within the NCSRP International Fund
- Determining the number of managers
- Selecting individual managers

International Small Cap: Performance Potential

Why international small cap?



Cumulative Returns for 20 Years Ended March 31, 2021

International small cap has added value over the broader index.

Sources: Callan, MSCI



International Equity Index Fund

Implementing New ACWI ex-US IMI Benchmark

Current Index Fund



BlackRock MSCI ACWI ex-US Index Fund

Proposed Index Fund



BlackRock MSCI ACWI ex-US IMI Index Fund

• The transition to the MSCI ACWI ex-US IMI Index Fund will not result in a change of investment management fee. BlackRock's investment management fee will remain 0.021%.

International Equity Fund

Alternative Manager Structures



- Both options are designed to be style neutral, with equal allocations to growth and value managers
- Both options feature a 14% allocation to small cap, in line with the MSCI ACWI ex-US IMI index weight
- The passive small cap option employs a single passive international small cap equity strategy (consisting of three BlackRock CITs)
- The active small cap option employs two complementary strategies in an asset class where the median manager has outperformed the index by 1.90% per year over rolling 3–year periods over 20 years*

*Additional information on p.16

International Small Cap Manager Finalists

Manager-Level Data

Statistics (5 years ending 3/31/21)	MSCI ACWI ex-US Small Cap Index*	50% WCM 50% Acadian	WCM	Acadian
Style	Core	Core	Growth	Value
Standard Deviation	22.4%	24.5%	28.2%	22.2%
Gross Excess Return (annualized)		9.4%	14.3%	4.2%
Net Excess Return (annualized)		8.7%	13.6%	3.6%
Tracking Error		5.9%	12.0%	4.1%
Up Market Capture	100%	147.2%	175.9%	120.0%
Down Market Capture	100%	82.5%	73.4%	92.0%
Estimated Investment Mgmt Fees**	0.035%	0.67%	0.70%	0.64%

- BlackRock does not have an existing passive product for this strategy
 - They are proposing a custom separate account consisting of existing strategies
 - This will likely include existing funds EAFE Small Cap + Emerging Markets Small Cap + Canada Small Cap
- Callan and NCSRP staff negotiated competitive fees with WCM and Acadian
 - Fees are well below the International Small Cap peer median fee 0.85% for mandates of \$150 million
 - These fees rank in the 90th percentile, meaning below 90% of similar strategies for similar size mandates

^{*}Index information only, as BlackRock does not have an existing strategy

^{**}Estimates using 3/31/20 market value of \$2.24billion

ticipant Option-Level Data Current Structure		Mix 1 (1 passive small cap manager)	Recommended Mix 2 (2 active small cap managers)	
Manager International Equity	% of Int'l		% of Int'l	% of Int'l
International Equity		-		
Baillie Gifford (active large/mid growth)	50%		43%	43%
Mondrian (active large/mid value)	50%		43%	43%
WCM (proposed active small growth)				7%
Acadian (proposed active small cap value)				7%
BlackRock (passive small cap core)			14%	
Total	100.00%		100.00%	100.00%
	MSCI ACWI ex-			
Statistics (5 years ending 3/31/21)****	US IMI	Current	Mix 1*	Mix 2*
Standard Deviation	18.6%	18.7%	19.3%	19.5%
Gross Excess Return (annualized)		1.9%	1.9%	3.2%
Net Excess Return (annualized)		1.6%	1.6%	2.8%
Tracking Error		1.44%	1.38%	1.91%
Weighted Median Market Cap**	30.1	41.3	37.3	37.3
Up Market Capture	100%	112.7%	114.6%	122.4%
Down Market Capture	100%	98.0%	100.4%	97.9%
Estimated Investment Mgmt Fees***		0.33%	0.28%	0.37%

- Adding international small cap improves excess returns with higher standard deviation
- The improved performance of active management, including in both up and down markets, more than offsets the higher fee for the recommended Mix 2
- BlackRock does not have an existing passive product for this strategy; actual risk and return results will likely vary more than shown in this estimated analysis
- Consistent with other transitions, a transition manager will be utilized to implement Mix 1 or Mix 2

^{*}Hypothetical portfolio calculations. Mix 1 includes index information rather than actual product information

^{**}Portfolio characteristics as of 12/31/2020

^{***}Estimates using 3/31/21 market value of \$2.24 billion

^{****}Additional time periods can be found on p.13



Appendix

Non-US Equity Opportunity Set is Vast



Sources: Callan, Russell, and MSCI; as of 12/31/2020

- The Russell 3000 and MSCI ACWI ex-USA IMI are capitalization weighted indices that include large, mid, and small cap stocks
- The indices assign different break points between their large/mid and small cap sub-indices
- Number of stocks
 - Russell 3000 = 3,060 stocks
 - Russell 2000 = 2,042 stocks
 - ACWI ex-USA IMI = 6,607 stocks
 - ACWI ex-US Small Cap = 4,246 stocks
- Market capitalization
 - Russell 3000 = \$37.9 trillion
 - Russell 2000 = \$2.5 trillion
 - ACWI ex-USA IMI = \$ 29.3 trillion
 - ACWI ex-US Small Cap = \$4 trillion

International Small Cap: Performance Potential



 International small cap has outperformed international large cap over time Sources: Callan, MSCI

Callan

International Small Cap: Risk/Return



Rolling 20 Quarter Scatter Chart for 10 Years Ended March 31, 2021

 International small cap has exhibited higher volatility and higher median returns than large/mid index
Sources: Callan, MSCI

Callan

International Small Cap: Risk/Return



Rolling 20 Quarter Scatter Chart for 10 Years Ended March 31, 2021

The additional risk is muted when considering the broader index

Sources: Callan, MSCI



International Small Cap: Performance Potential

Rolling Performance – Small Cap Relative to Large Cap



Rolling 12 Quarter Excess Return Relative To MSCI ACWI exUS



Participant Option-Level Data	Current Struc	ture	Mix 1 (1 passive small cap manager)	Recommended Mix 2 (2 active small cap managers)
Manager	% of Int'l	% of Int'l		% of Int'l
International Equity				
Baillie Gifford (active large/mid growth)	50%		43%	43%
Mondrian (active large/mid value)	50%		43%	43%
WCM (proposed active small growth)				7%
Acadian (proposed active small cap value)				7%
BlackRock (passive small cap core)			14%	
Total	100.00%		100.00%	100.00%
	MSCI ACWI ex-			
Statistics (3 years ending 3/31/21)	US IMI	Current	Mix 1*	Mix 2*
Standard Deviation	23.5%	23.6%	24.3%	24.60%
Gross Excess Return (annualized)		2.8%	2.6%	4.00%
Net Excess Return (annualized)		2.5%	2.3%	3.70%
Tracking Error		1.46	1.36	2
Up Market Capture	100%	113.1%	114.7%	122.10%
Down Market Capture	100%	96.8%	99.2%	97.80%
Estimated Investment Mgmt Fees**		0.33%	0.28%	0.37%
	MSCI ACWI ex-			
Statistics (10 years ending 3/31/21)	US IMI	Current	Mix 1*	Mix 2*
Standard Deviation	16.9%	16.3%	16.7%	16.80%
Gross Excess Return (annualized)		2.5%	2.3%	3.40%
Net Excess Return (annualized)		2.1%	2.1%	3.00%
Tracking Error		1.96	1.73	1.97
Up Market Capture	100%	114.4%	116.6%	127.50%
Down Market Capture	100%	92.9%	94.5%	92.90%
Estimated Investment Mgmt Fees**		0.33%	0.28%	0.37%

Alternative International Equity Fund Structures

*Hypothetical portfolio calculations. Mix 1 includes index information rather than actual product information; For periods longer than 5 years, WCM composite returns are linked to the median small cap manager returns

**Estimates using 3/31/21 market value of \$2.24 billion

Active versus Passive Considerations

- Active and passive strategies can be complementary and can both play important roles in a portfolio
- Passive mandates provide low-cost exposure to the market
- Passive allocations are good liquidity vehicles for rebalancing, transition management, and making cash contributions/distributions
- Passive allocations are simple to monitor with less manager (and business) risk
- Passive mandates provide competitive performance in efficient markets and lower the tracking error for the total portfolio
- There are active managers who outperform the index the challenge is to identify and hold them throughout their full performance cycle
- Like any style of investing, passive management will go in and out of favor over time

Active Management Performance

Empirical Data Suggests International Equity is a Good Hunting Ground for Alpha

Style Group	Benchmark	Annualized Historical Gross Excess Returns
Non-US All Country	MSCI ACWI ex-U.S.	1.08%
Non-US Developed	MSCI EAFE	1.34%
Small Cap	MSCI ACWI ex-U.S. Small Cap	1.90%
Emerging Markets	MSCI Emerging Markets	0.94%

Based on 20 years of rolling 3 year median manager returns (Period Q1 2001- Q4 2020)

- The median active manager has outperformed its benchmark across the various style groups
 - It is important to note that the small cap style group contains products benchmarked to both the ACWI ex-U.S. and World ex-U.S. Small Cap Indices; the results versus World ex-U.S. Small Cap are very similar
- The following pages contain additional detail on active manager performance by style from Callan's manager peer groups

Global ex-U.S. Small Cap Style vs. MSCI ACWI ex-U.S. Small Cap

Fee Hurdle	0.75%	0.80%	0.85%	0.90%	0.95%	1.00%	1.05%	1.10%	1.15%	1.20%
Median	65%	65%	64%	64%	64%	64%	64%	64%	61%	61%
45th Percentile	66%	66%	66%	66%	66%	66%	66%	65%	65%	64%
40th Percentile	79%	79%	78%	78%	74%	73%	73%	73%	70%	70%
35th Percentile	81%	81%	81%	81%	81%	81%	80%	80%	80%	80%
30th Percentile	86%	86%	86%	86%	86%	85%	85%	85%	85%	85%
25th Percentile	89%	89%	88%	88%	88%	86%	86%	86%	86%	86%

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Average Annualized 3-Year Excess Return (gross) – Median Manager:

1.90%

Rolling 3-Year Gross Excess Return relative to MSCI ACWI ex USA Small Cap for 20 Years ended December 31, 2020





Global ex-U.S. Small Cap Style vs. MSCI ACWI ex USA Small Cap

Fee Hurdle	0.75%	0.80%	0.85%	0.90%	0.95%	1.00%	1.05%	1.10%	1.15%	1.20%
Median	70%	70%	68%	68%	68%	68%	68%	68%	65%	65%
45th Percentile	72%	72%	72%	72%	72%	72%	72%	70%	70%	68%
40th Percentile	77%	77%	75%	75%	73%	73%	73%	73%	72%	72%
35th Percentile	78%	78%	78%	78%	78%	78%	77%	77%	77%	77%
30th Percentile	82%	82%	82%	82%	82%	80%	80%	80%	80%	80%
25th Percentile	85%	85%	83%	83%	83%	82%	82%	82%	82%	82%

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 15 years

Average Annualized 3-Year Excess Return (gross) – Median Manager:

Rolling 3-Year Gross Excess Return relative to MSCI ACWI ex USA Small Cap for 15 Years ended December 31, 2020



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1.82%

Global ex-U.S. Small Cap Style vs. MSCI ACWI ex USA Small Cap

Fee Hurdle	0.75%	0.80%	0.85%	0.90%	0.95%	1.00%	1.05%	1.10%	1.15%	1.20%
Median	75%	75%	73%	73%	73%	73%	73%	73%	68%	68%
45th Percentile	78%	78%	78%	78%	78%	78%	78%	75%	75%	73%
40th Percentile	85%	85%	83%	83%	80%	80%	80%	80%	78%	78%
35th Percentile	88%	88%	88%	88%	88%	88%	85%	85%	85%	85%
30th Percentile	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
25th Percentile	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 10 Years

Average Annualized 3-Year Excess Return (gross) – Median Manager:

2.47%

Rolling 3-Year Gross Excess Return relative to MSCI ACWI ex USA Small Cap for 10 Years ended December 31, 2020





Global ex-U.S. Small Cap Style vs. MSCI ACWI ex USA Small Cap

Fee Hurdle	0.75%	0.80%	0.85%	0.90%	0.95%	1.00%	1.05%	1.10%	1.15%	1.20%
Median	75%	75%	70%	70%	70%	70%	70%	70%	60%	60%
45th Percentile	80%	80%	80%	80%	80%	80%	80%	75%	75%	70%
40th Percentile	90%	90%	85%	85%	80%	80%	80%	80%	80%	80%
35th Percentile	95%	95%	95%	95%	95%	95%	90%	90%	90%	90%
30th Percentile	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
25th Percentile	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 5 Years

Average Annualized 3-Year Excess Return (gross) – Median Manager:

1.59%

Rolling 3-Year Gross Excess Return relative to MSCI ACWI ex USA Small Cap for 5 Years ended December 31, 2020



Global ex-U.S. Equity Broad Style vs. MSCI ACWI ex-U.S.

Fee Hurdle	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%	0.75%	0.80%	0.85%	0.90%
Median	60%	59%	59%	58%	56%	56%	55%	48%	48%	46%
45th Percentile	69%	66%	66%	66%	65%	64%	63%	63%	63%	58%
40th Percentile	83%	83%	81%	81%	76%	75%	74%	74%	74%	73%
35th Percentile	93%	93%	91%	90%	89%	89%	85%	84%	80%	80%
30th Percentile	99%	98%	98%	98%	98%	98%	98%	98%	96%	94%
25th Percentile	100%	100%	100%	99%	99%	99%	99%	99%	99%	99%

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Average Annualized 3-Year Excess Return (gross) – Median Manager:

1.08%

Rolling 3-Year Gross Excess Return relative to MSCI ACWI ex USA for 20 Years ended December 31, 2020





Developed-ex U.S. Broad Equity Style vs. MSCI EAFE

Fee Hurdle	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%	0.75%	0.80%	0.85%	0.90%
Median	86%	86%	85%	84%	81%	79%	76%	75%	73%	68%
45th Percentile	94%	94%	93%	90%	89%	89%	86%	86%	84%	83%
40th Percentile	98%	96%	96%	95%	95%	95%	95%	94%	93%	91%
35th Percentile	100%	100%	99%	99%	98%	95%	95%	95%	95%	95%
30th Percentile	100%	100%	100%	100%	100%	100%	99%	99%	98%	98%
25th Percentile	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Average Annualized 3-Year Excess Return (gross) – Median Manager:

1.34%

Rolling 3-Year Gross Excess Return relative to MSCI EAFE for 20 Years ended December 31, 2020





Emerging Market Broad Equity Style vs. MSCI Emerging Markets

Fee Hurdle	0.70%	0.75%	0.80%	0.85%	0.90%	0.95%	1.00%	1.05%	1.10%	1.15%
Median	55%	53%	51%	50%	49%	46%	45%	45%	44%	38%
45th Percentile	68%	64%	63%	63%	59%	56%	56%	56%	56%	51%
40th Percentile	80%	80%	78%	75%	73%	69%	68%	65%	64%	64%
35th Percentile	91%	91%	90%	90%	88%	86%	85%	85%	83%	81%
30th Percentile	98%	98%	96%	95%	95%	95%	95%	95%	95%	94%
25th Percentile	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Average Annualized 3-Year Excess Return (gross) – Median Manager:

0.94%

Rolling 3-Year Gross Excess Return relative to MSCI Emerging Markets for 20 Years ended December 31, 2020



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A Guide to Our Active vs. Passive Data

This publication contains two charts for each category of active managers. The top table shows the percentage of rolling 3-year periods in which managers in various percentiles beat their benchmark by more than a certain fee hurdle. Percentages 50% and above are shaded in green.

The bottom chart displays the gross excess return for all the managers in Callan's database for specific asset class categories across the distribution spectrum, from the 10th percentile to the 90th percentile.

0.18%

Large Cap Core Equity Style vs. S&P 500

Fee Hurdle	0.25%	0.30%	0.3 <mark>5%</mark>	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%
Median	51%	49%	46 <mark>%</mark>	40%	40%	36%	31%	30%	29%	29%
45th Percentile	61%	61%	60%	59%	59%	55%	54%	49%	41%	39%
40th Percentile	66%	65%	65%	65%	64%	64%	64%	61%	60%	59%
35th Percentile	79%	75%	71%	69%	69%	68%	68%	66%	65%	65%
30th Percentile	85%	84%	84%	80%	79%	79%	78%	76%	73%	70%
25th Percentile	95%	94%	93%	89%	86%	85%	83%	83%	81%	79%

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Average Annualized 3-Year Excess Return (gross) – Median Manager:

This data point indicates that managers in the 40th percentile beat the benchmark by at least 0.35% in 65% of the rolling 3-year periods over the last 20 years.

Rolling 3-Year Gross Excess Return relative to S&P 500 for 20 Years ended June 30, 2018



This data range shows that in the 4th quarter of 2004, the median manager in Callan's database reported gross excess returns over the benchmark of -0.25%, with returns ranging from 1.94% for managers in the 10th percentile to -3.95% for those in the 90th percentile.

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