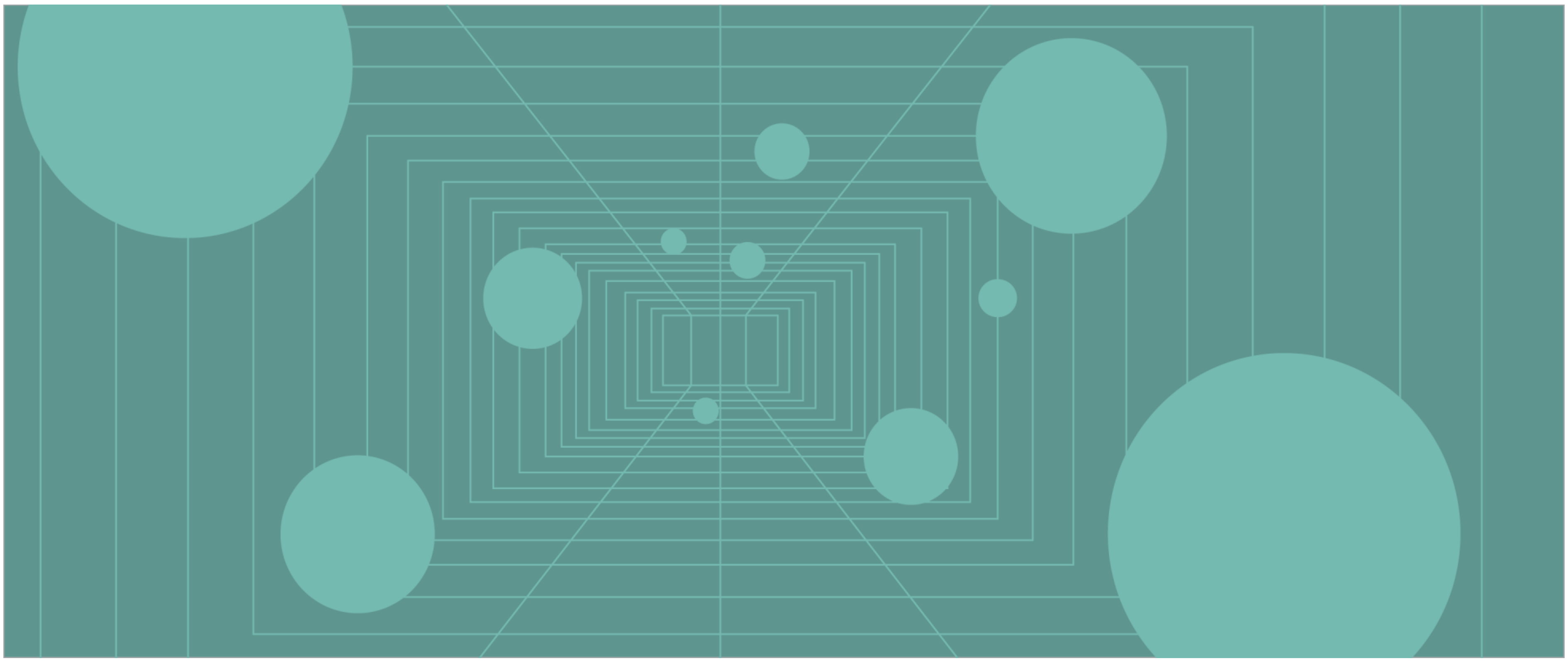
GLOBAL EX US EQUITY MANAGER PERFORMANCE

ANALYSIS OF 2018 AND PERFORMANCE SINCE 2000



CAMBRIDGE ASSOCIATES

2019

Summary Observations

- In 2018, 62.1% of active global ex US managers underperformed the MSCI EAFE Index gross of fees, with the median manager underperforming by 123 basis points (bps). Since 2000, the median manager has now underperformed the index in just three calendar years, and 2018 marks the first year of underperformance since 2004.
- After adding a fee proxy of 70 bps, only 30% of managers outperformed the benchmark in 2018. Since 2000 versus the fee-adjusted index, the majority of managers have outperformed in more than half of the calendar years, posting better performance in ten of 19 years.
- By style, the median growth manager in the global ex US region bested value and diverse strategies, but the median manager across all three styles trailed the MSCI EAFE Index. Both growth and value managers lagged their respective style benchmarks for the year, although value trailed its benchmark by a narrower margin. Looking longer term, the median value manager has outperformed the value index in eight of the last ten years. Growth managers have had a more difficult time outperforming their growth benchmark, trailing in four of ten years.
- On a median basis, managers were significantly overweight the IT and consumer discretionary sectors. Both sectors underperformed the broader index. Conversely, managers held underweight positions in the two top performing sectors: utilities and healthcare. Utilities was the only sector in the MSCI EAFE Index to post a positive return for 2018.

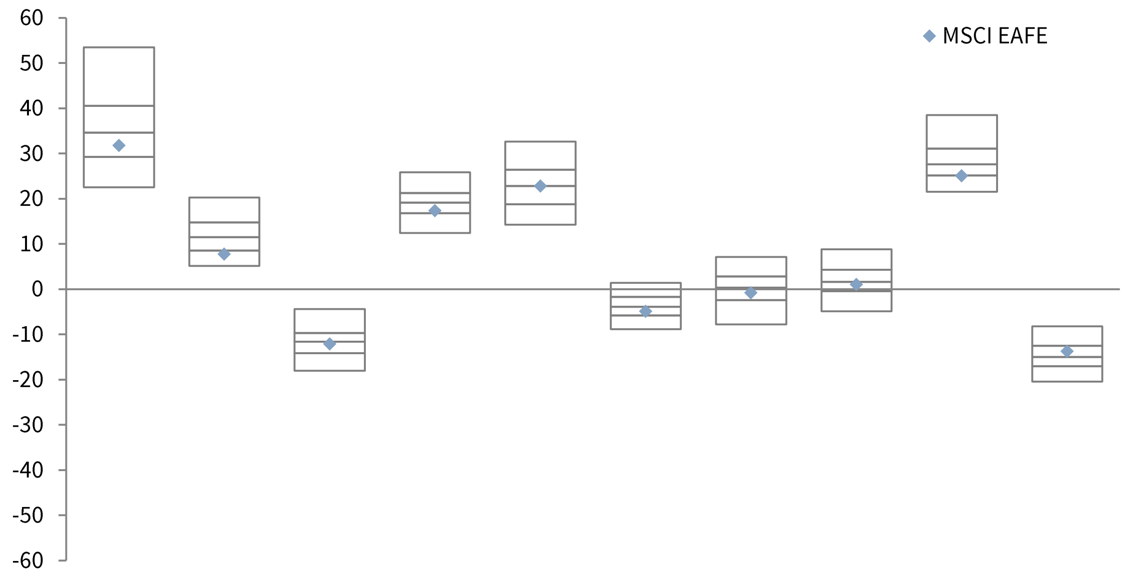
Summary Observations (continued)

- On a median basis, managers were again underweight each of the six countries to which the MSCI EAFE Index has a weight greater than 5%. The largest underweights were to Japan and Australia, both of which outperformed MSCI EAFE in USD terms. Global ex US equity managers tend to make a number of off-benchmark country bets. In 2018, over half of the managers that reported country allocations had an allocation to six countries not in MSCI EAFE: Canada, China, South Korea, Taiwan, United States, and India. The performance of these countries in USD terms was mixed; however, China was the most heavily weighted off-benchmark bet and trailed MSCI EAFE by more than 500 bps.
- High dispersion in stock returns is often thought to mean more managers will outperform. In fact, the relationship is extremely weak. Rather, stock dispersion is more likely to increase the dispersion of managers' excess returns—greater stock dispersion gives managers more of an opportunity to separate from the pack, but this can be to the upside or the downside. Since the global financial crisis, stock return dispersion has been quite low; 2018 was among the lowest observations on record.
- Persistence in manager outperformance is rare, yet global ex US managers in the top-performing initial quintile managed to show consistency, as nearly half of the top-performing managers from 2009 to 2013 remained in the top quintile in the 2014–18 period. This stands in contrast to prior ten-year windows, when top performers during the initial five-year period tended to rotate to bottom quintiles in the subsequent five-year periods.

62.1% of managers underperformed the index in 2018

GLOBAL EX US EQUITY MANAGER ANNUAL RETURNS BY QUARTILES

2009–18 • Percent (%)



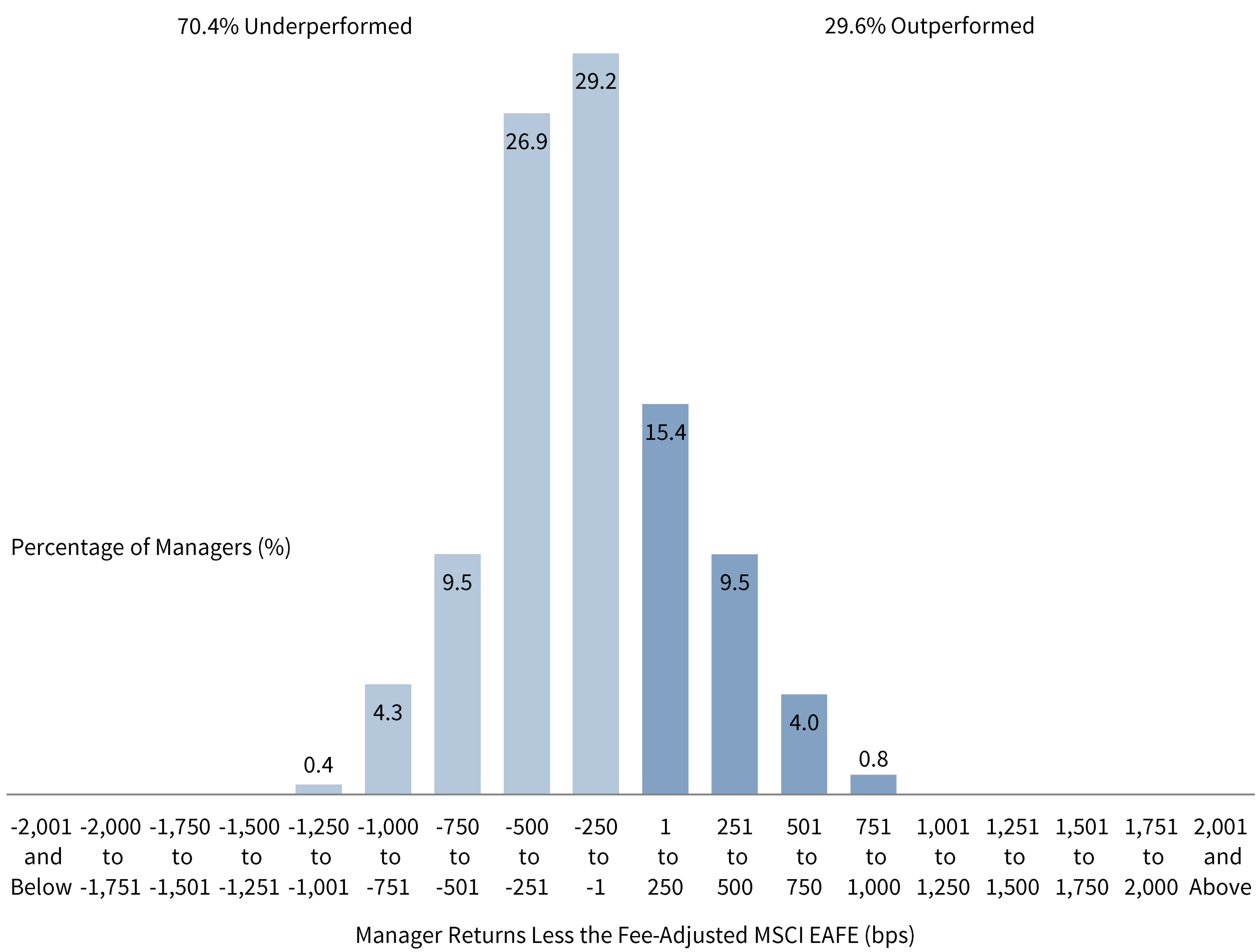
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
5th Percentile	53.5	20.3	-4.4	25.8	32.7	1.4	7.1	8.9	38.5	-8.2
25th Percentile	40.6	14.8	-9.7	21.3	26.4	-1.7	2.8	4.3	31.1	-12.5
Median	34.6	11.5	-11.6	19.2	22.8	-3.9	0.4	1.6	27.7	-15.0
75th Percentile	29.2	8.5	-14.2	16.8	18.8	-5.8	-2.4	-0.4	25.2	-17.1
95th Percentile	22.6	5.2	-18.0	12.4	14.3	-8.8	-7.8	-4.9	21.5	-20.5
MSCI EAFE	31.8	7.8	-12.1	17.3	22.8	-4.9	-0.8	1.0	25.0	-13.8
# of Managers	*288*	*288*	*293*	*289*	*292*	*292*	*298*	*291*	*283*	*253*
% Outperforming	**63.2**	**80.2**	**55.6**	**68.5**	**50.3**	**63.7**	**63.1**	**55.7**	**76.0**	**37.9**
% Underperforming	**36.8**	**19.8**	**44.4**	**31.5**	**49.7**	**36.3**	**36.9**	**44.3**	**24.0**	**62.1**

The year 2018 marked the first time since 2004 where the majority of active managers failed to outperform the index.

Sources: Cambridge Associates LLC, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: Cambridge Associates LLC's (CA) manager universe statistics are derived from CA's proprietary Investment Manager Database. Managers that do not report in US dollars, exclude cash reserves from reported total returns, or have less than $50 million in product assets are excluded. Performance is generally reported gross of investment management fees. To be included in analysis of any period longer than one quarter, managers must have had performance available for the full period.

Adjusted for fees, the percentage of underperformers in 2018 was 70.4%

MANAGER RETURNS RELATIVE TO THE FEE-ADJUSTED MSCI EAFE INDEX
Calendar Year 2018 • n = 253



While just 30% outperformed, nearly 15% (36 managers) bested the fee-adjusted index by more than 250 bps in 2018.

Sources: Cambridge Associates LLC, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
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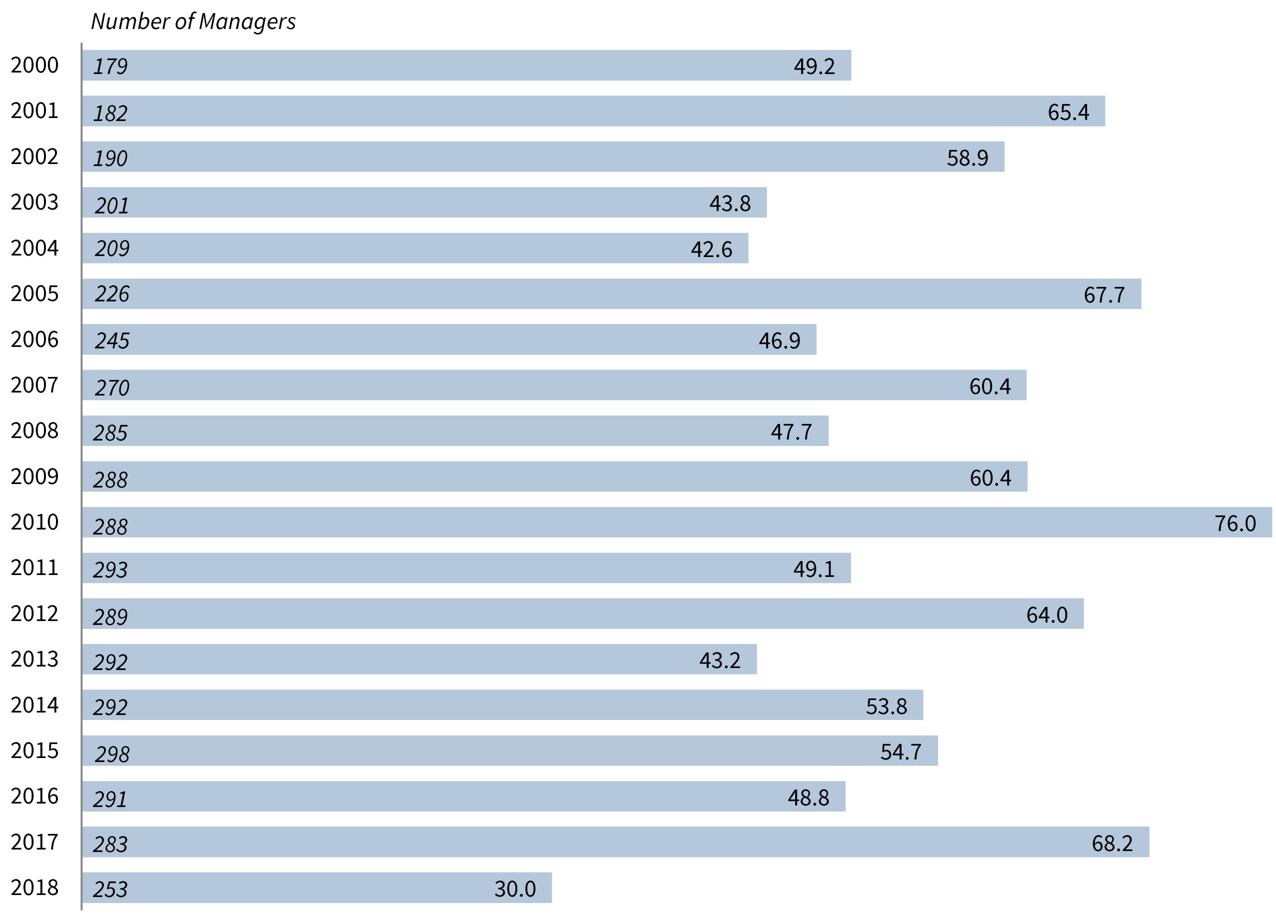
Active global ex US manager outperformance is cyclical

PERCENTAGE OF GLOBAL EX US EQUITY MANAGERS OUTPERFORMING THE FEE-ADJUSTED MSCI EAFE INDEX
2000–18 • Percent (%)

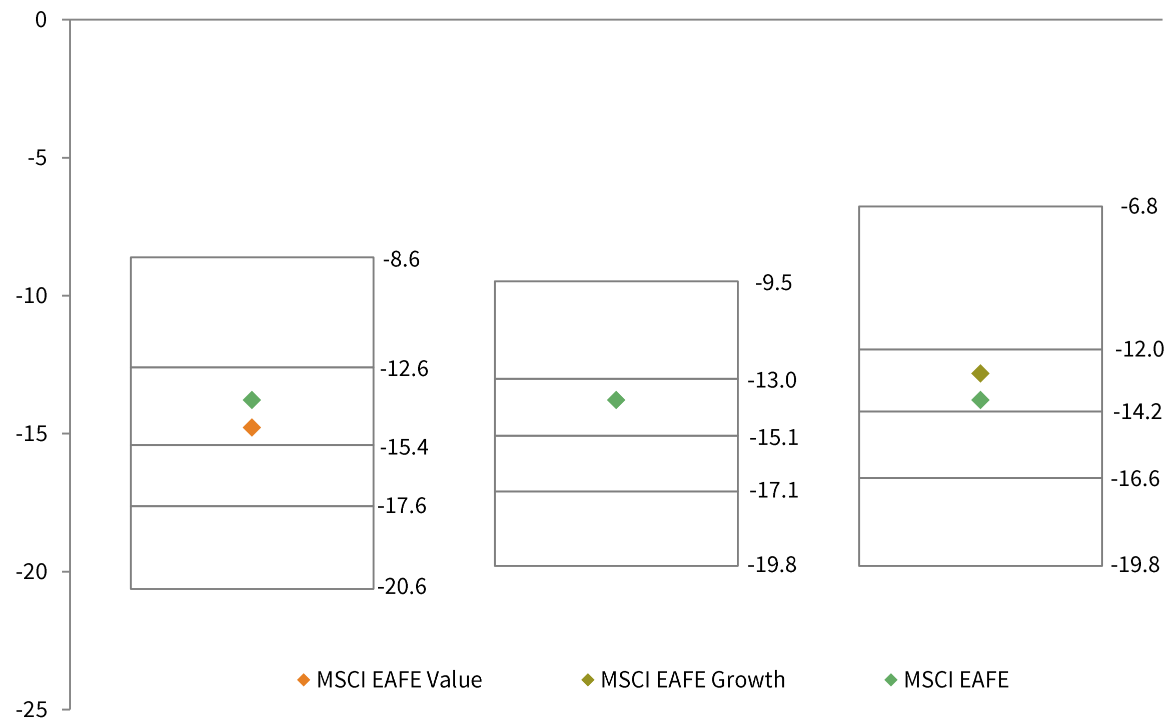


Since 2000, the majority of managers have outperformed the index about half the time, posting better performance in ten of 19 years. 2018 proved to be a challenging year, as the percentage of global ex US managers outperforming the index fell to the lowest recorded level dating back to 2000.

Sources: Cambridge Associates LLC, FactSet Research Systems, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: Cambridge Associates LLC's (CA) manager universe statistics are derived from CA's proprietary Investment Manager Database. Managers that do not report in US dollars, exclude cash reserves from reported total returns, or have less than $50 million in product assets are excluded. Performance is generally reported gross of investment management fees. We have added 70 bps to the MSCI EAFE Index return as a proxy for manager fees. To be included in analysis of any period longer than one quarter, managers must have had performance available for the full period.

The median growth manager fared better than other styles in 2018

GLOBAL EX US EQUITY MANAGER UNIVERSE RETURN QUARTILES BY INVESTMENT PHILOSOPHY
Calendar Year 2018 • Percent (%)



	Value	Diverse	Growth
High	-4.3	-7.2	-4.6
Manager Median	-15.4	-15.1	-14.2
Low	-22.8	-17.3	-23.1
Index*	-14.8	-13.8	-12.8
Number of Managers	*87*	*48*	*66*

The growth outperformance was a continuation of the trend seen in 2017, yet all three strategies lagged their respective benchmarks.

* Index represents: MSCI EAFE Value Index for Value; MSCI EAFE Index for Diverse; and MSCI EAFE Growth Index for Growth.
Sources: Cambridge Associates LLC, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: Cambridge Associates LLC's (CA) manager universe statistics are derived from CA's proprietary Investment Manager Database. Managers that do not report in US dollars, exclude cash reserves from reported total returns, or have less than $50 million in product assets are excluded. Performance is generally reported gross of investment management fees. Only managers with performance available for the entire period measured are included.

Investment styles go in and out of favor over time

THE CYCLICAL NATURE OF GLOBAL EX US EQUITY INVESTMENT PHILOSOPHIES

2000–18 • Percent (%)

Annual Total Returns

Year	Median Growth Mgr	*n*	Median Value Mgr	*n*	Global ex US Stocks (MSCI EAFE)
2000	-16.4	*73*	**-5.9**	*53*	-14.2
2001	-21.7	*75*	**-12.6**	*51*	-21.4
2002	-16.5	*77*	**-10.0**	*56*	-15.9
2003	34.5	*75*	**41.6**	*66*	38.6
2004	17.9	*75*	**22.7**	*73*	20.2
2005	**17.3**	*78*	14.4	*81*	13.5
2006	24.2	*79*	**28.3**	*93*	26.3
2007	**17.7**	*82*	9.9	*97*	11.2
2008	-45.2	*91*	**-41.6**	*98*	-43.4
2009	**35.8**	*86*	34.7	*101*	31.8
2010	**12.1**	*83*	10.6	*101*	7.8
2011	**-11.1**	*83*	-11.6	*103*	-12.1
2012	**19.6**	*79*	18.6	*103*	17.3
2013	20.3	*79*	**23.2**	*106*	22.8
2014	**-3.4**	*78*	-4.6	*107*	-4.9
2015	**1.3**	*82*	-0.8	*105*	-0.8
2016	-0.3	*79*	**3.3**	*100*	1.0
2017	**31.4**	*74*	26.2	*97*	25.0
2018	-14.2	*66*	-15.4	*87*	**-13.8**
Average Annual Compound Returns: Periods Ended December 31, 2018					
Trailing 15-Yr	**6.6**	*28*	6.1	*36*	4.7
Trailing 10-Yr	**8.4**	*46*	7.4	*67*	6.3
Trailing 5-Yr	**1.9**	*53*	1.0	*81*	0.5
Trailing 3-Yr	**3.4**	*61*	3.3	*84*	2.9

Growth has edged value over trailing three- and five-year lookback periods, and outperformed in seven of ten years dating back to the global financial crisis. Styles can experience cyclical shifts; value outperformed growth in seven of nine years from 2000 to 2008.

Sources: Cambridge Associates LLC, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties. Notes: The philosophy with the highest return in each period is highlighted. Cambridge Associates LLC's (CA) manager universe statistics are derived from CA's proprietary Investment Manager Database. Managers that do not report in US dollars, exclude cash reserves from reported total returns, or have less than $50 million in product assets are excluded. Performance is generally reported gross of investment management fees. To be included in analysis of any period longer than one quarter, managers must have had performance available for the full period.

Managers' different sector allocations can affect relative performance

GLOBAL EX US EQUITY MANAGERS' MEDIAN SECTOR ALLOCATIONS VERSUS INDEX WEIGHT

As of December 31, 2018 • Percent (%) • *n = 209*

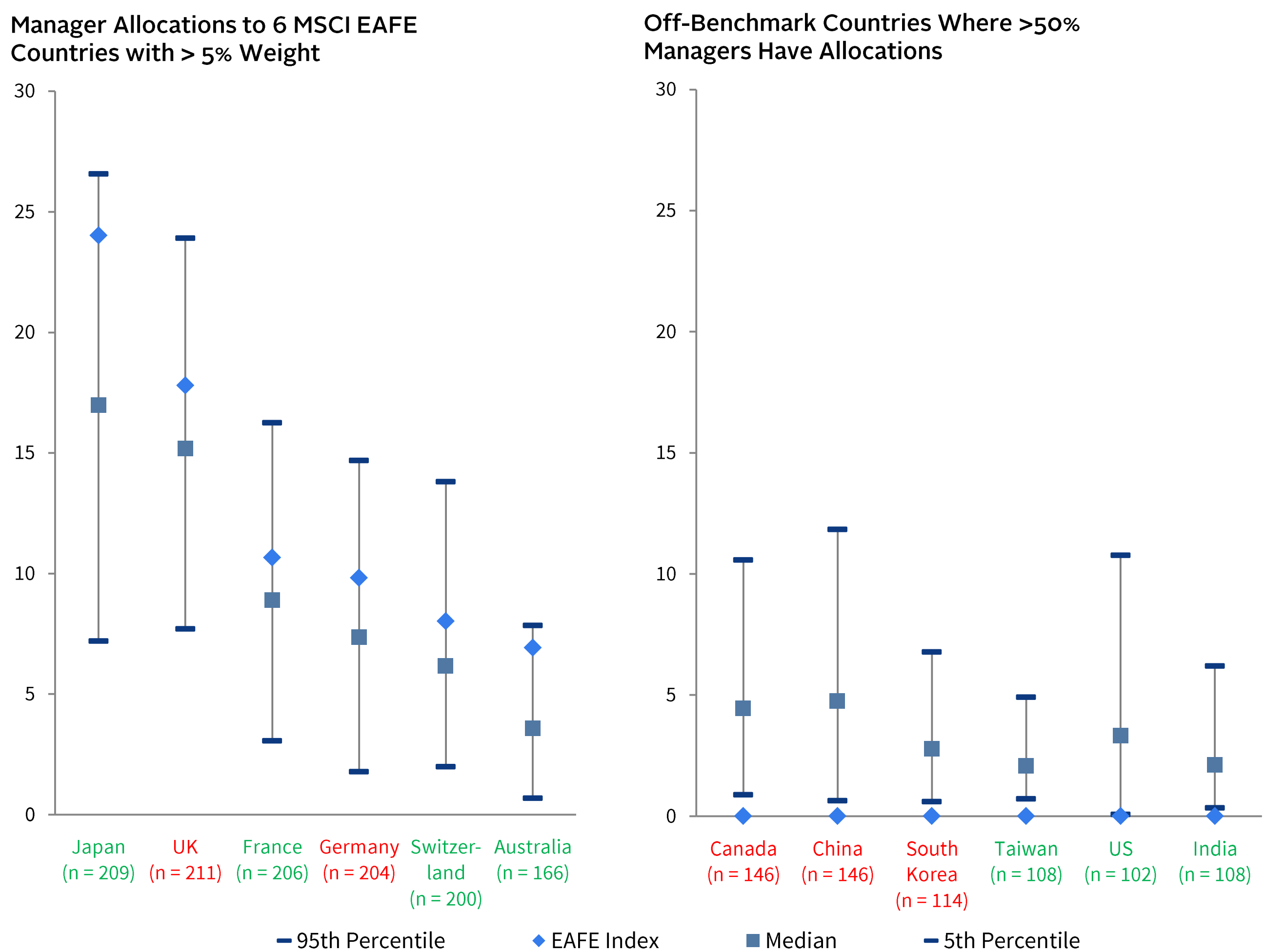
Sector	Manager Median vs Index (bps) Underweight vs Index / Overweight vs Index	12/31/2017 Index Weight (%)	CY 2018 Index Returns	Net Allocation Effect (+/-)
Cons Disc	235	12.3	-16.1	-
Cons Staples	-202	11.2	-10.8	-
Energy	11	5.3	-7.2	+
Financials	-97	21.2	-20.1	+
Healthcare	-115	10.1	-4.3	-
Industrials	-8	14.6	-15.7	+
IT	457	6.4	-15.6	-
Materials	-103	8.2	-17.5	+
Real Estate	-250	3.6	-9.9	-
Telecomm*	-38	3.9	-12.1	-
Utilities	-159	3.2	1.1	–
		MSCI EAFE	-13.8	

On a median basis, managers were significantly overweight IT and consumer discretionary in 2018. Managers held underweight positions in the two top-performing sectors: utilities and healthcare.

* The Telecommunication Services sector was renamed and expanded to become the Communication Services GICS sector on December 3, 2018.
Sources: Cambridge Associates LLC, Factset Research Systems, Frank Russell Company, and Thomson Reuters Datastream.
Notes: Includes data for the 209 managers that provided sector allocations as of year-end 2017. Index weights represent year-end 2017 GICS sector allocations of the MSCI EAFE Index. Cambridge Associates LLC's (CA) manager universe statistics are derived from CA's proprietary Investment Manager Database. Managers that do not report in US dollars, exclude cash reserves from reported total returns, or have less than $50 million in product assets are excluded. Performance is generally reported gross of investment management fees. Underweight and overweight positions do not sum to zero due to cash and out of index bet positions.

Off-benchmark country bets can significantly affect relative performance

GLOBAL EX US EQUITY MANAGERS' COUNTRY ALLOCATIONS VS THE MSCI EAFE INDEX
As of December 31, 2018 • *n = 204*



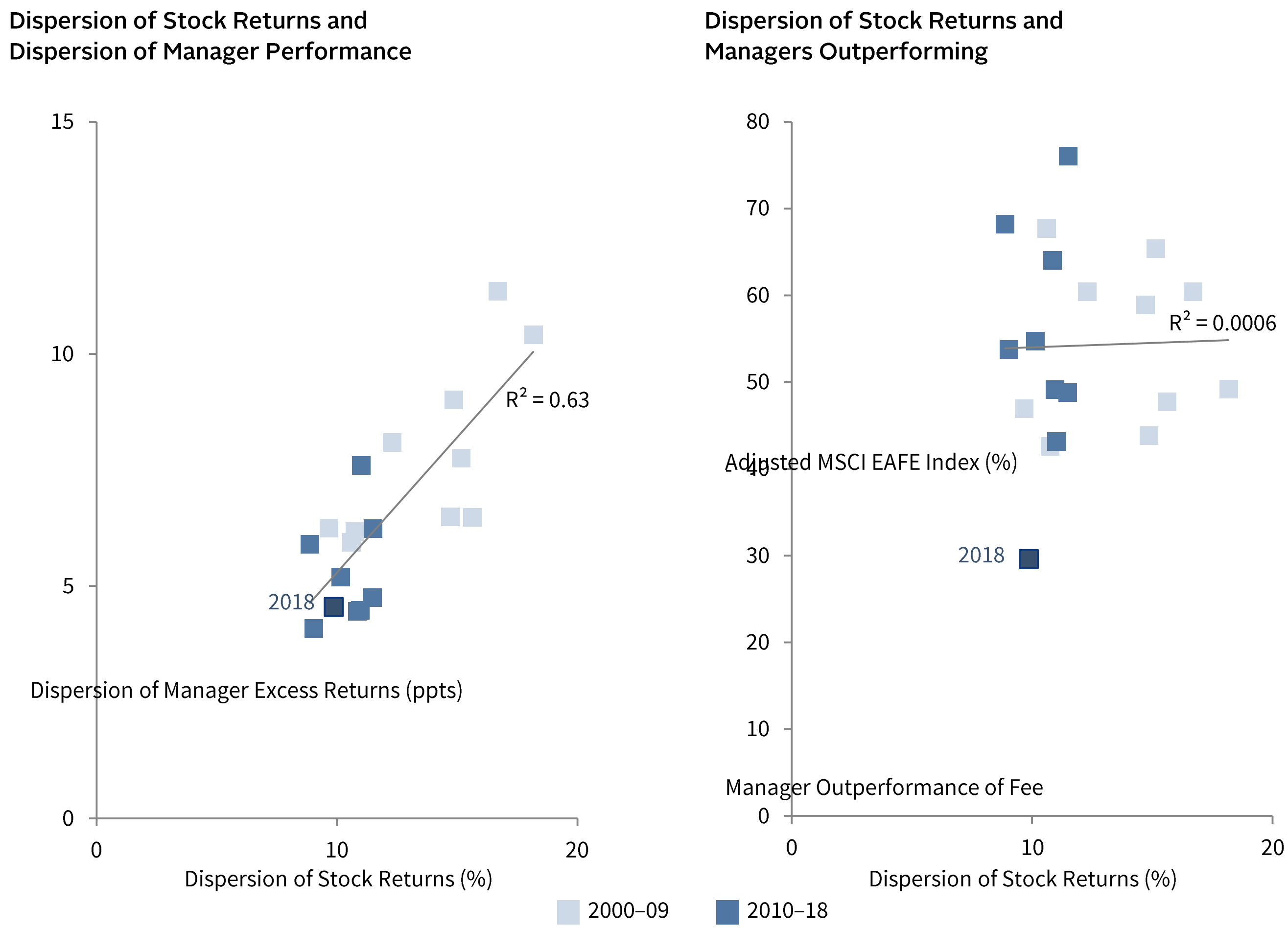
A majority of managers had allocations to six countries not in the MSCI EAFE Index; among these, the highest off-benchmark median allocation was to China, which significantly underperformed the index in 2018.

Sources: Cambridge Associates LLC, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: A country name in red indicates that the country underperformed the MSCI EAFE Index, while green country names indicate outperformance. Only includes data for 204 managers that provided geographic allocation as of year-end 2018. Index weights represent year-end geographic allocations of the MSCI EAFE Index. The n provided for each country represents the total number of products exposed to a given country as of year-end 2018, and percentile, median, and average figures are calculated only from products with exposure to the country shown. Cambridge Associates LLC's (CA) manager universe statistics are derived from CA's proprietary Investment Manager Database. Manager that do not report in US dollars, exclude cash reserves from reported total returns, or have less than $50 million in product assets are excluded.

Dispersion of stock returns is correlated to dispersion of manager performance

IMPACT OF ANNUAL DISPERSION OF GLOBAL EX US STOCK RETURNS ON DISPERSION OF MANAGER EXCESS RETURNS AND PERCENT OF MANAGERS OUTPERFORMING

2000–18

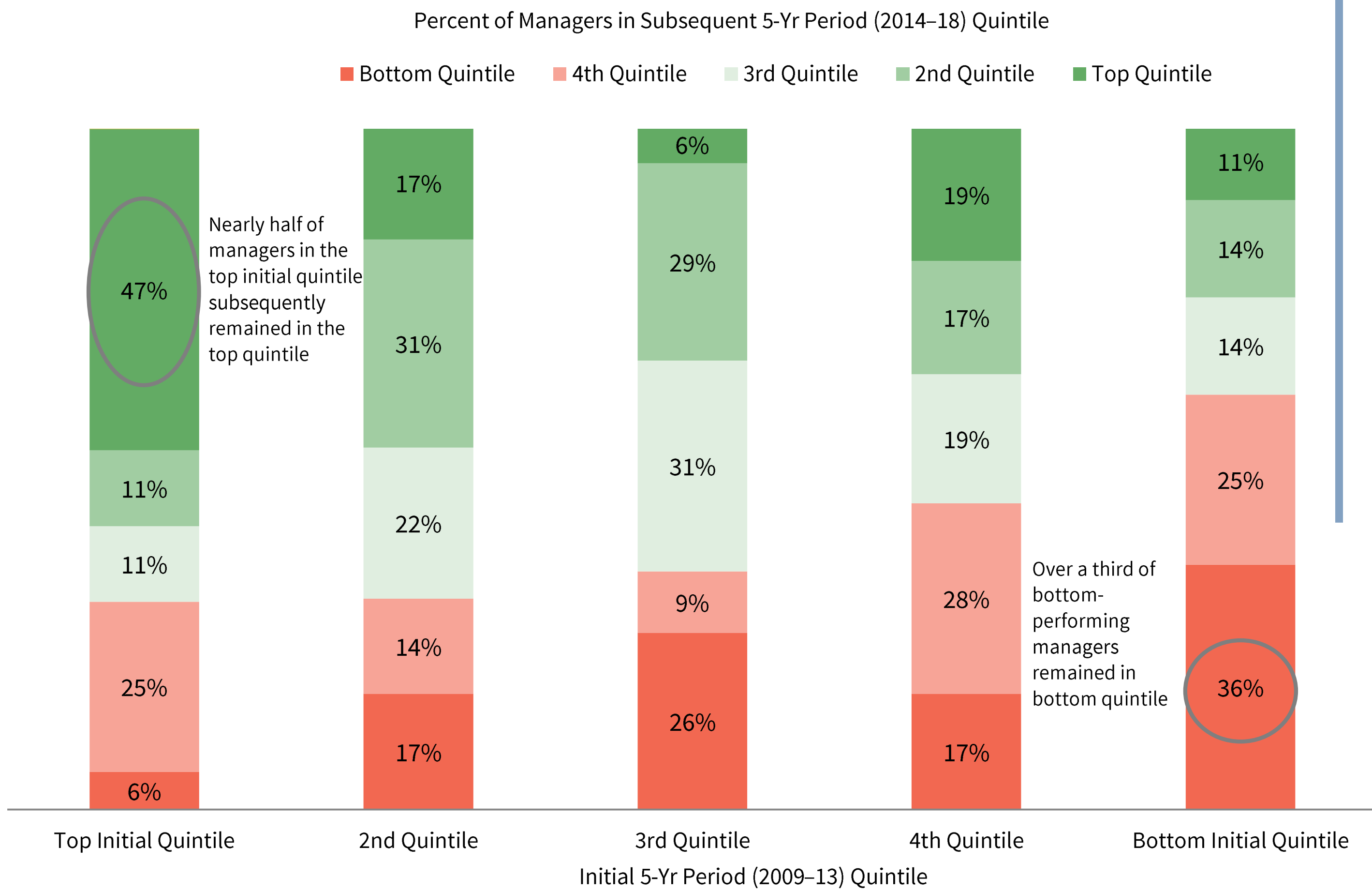


No relationship exists between stock dispersion and percentage of managers outperforming the index.

Sources: Cambridge Associates LLC, FactSet Research Systems, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: Dispersion of return for stocks is represented by the square root of the sum of the squared differences between returns for each constituent and the index return multiplied by the weight of the constituent in the index. Dispersion of excess returns for managers represents managers in the middle 50% of the return range for global ex US equity managers. Cambridge Associates LLC's (CA) manager universe statistics are derived from CA's proprietary Investment Manager Database. Managers that do not report in US dollars, exclude cash reserves from reported total returns, or have less than $50 million in product assets are excluded. Performance is generally reported gross of investment management fees. We have added 70 bps to the MSCI EAFE Index return as a proxy for manager fees. Number of managers included in medians varies from quarter-to-quarter. To be included in analysis of any period longer than one quarter, managers must have had performance available for the full period.

Managers typically move between top and bottom quintiles, but recently have shown consistency

ANALYSIS OF GLOBAL EX US EQUITY MANAGER RETURNS BY QUINTILE OVER FIVE-YEAR PERIODS
2009–18 • *n = 179*



Global ex US managers in the top-performing initial quintile showed rare consistency, as nearly half remained in the top quintile during the subsequent five-year period. This stands in contrast to prior ten-year windows, when top performers during the initial five-year period tended to rotate to bottom quintiles in the subsequent five-year periods.

Source: Cambridge Associates LLC.
Notes: Cambridge Associates LLC's (CA) manager universe statistics are derived from CA's proprietary Investment Manager Database. Managers that do not report in US dollars, exclude cash reserves from reported total returns, or have less than $50 million in product assets are excluded. Performance is generally reported gross of investment management fees. Only managers with performance available for the entire period measured are included.

Contributors to this report include Sean Duffin, Melanie Blum, Morgen Ellis, and Greg Gonsalves.