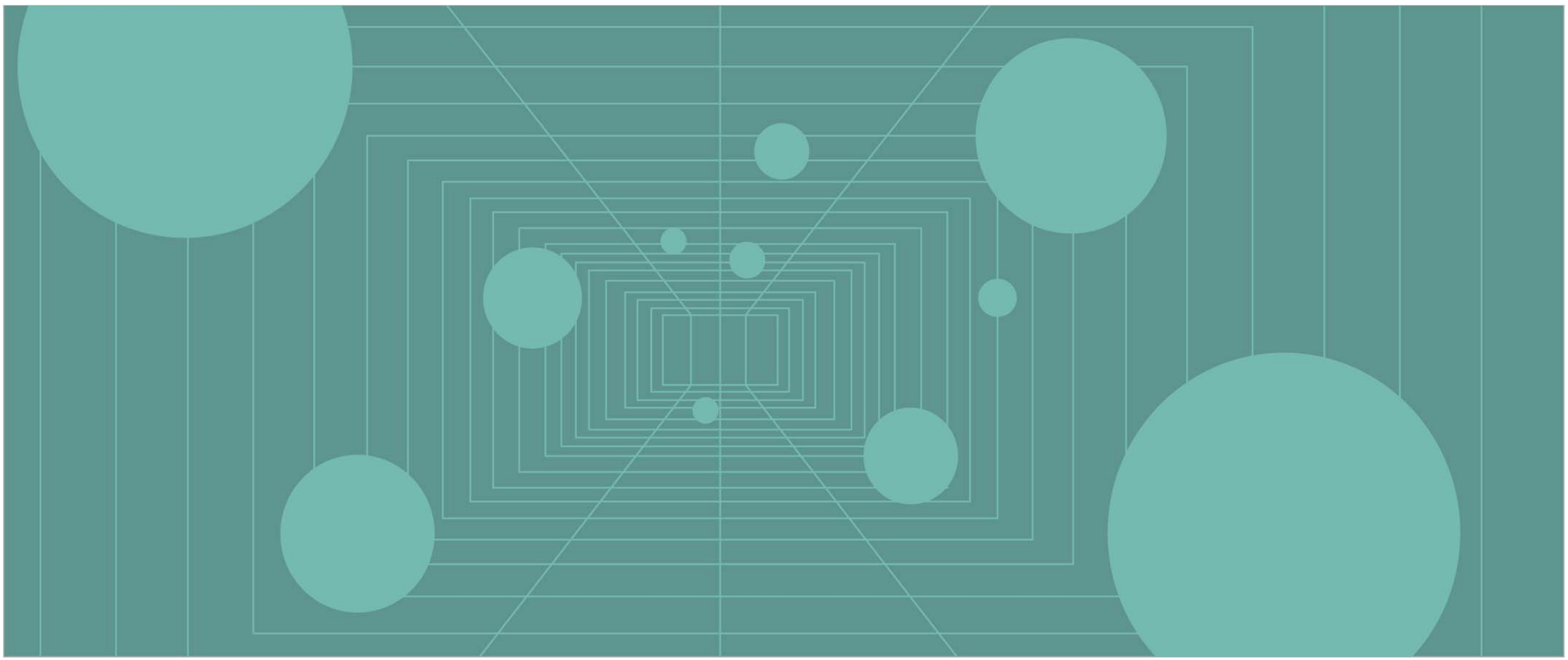
US MID- TO LARGE-CAP EQUITY MANAGER PERFORMANCE

ANALYSIS OF 2019 AND PERFORMANCE SINCE 2000



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Summary Observations

- For the sixth straight year, the majority of active mid- to large-cap managers underperformed in 2019, with 62.0% lagging the benchmark (gross of fees). The median manager underperformed the Russell 1000® Index by 177 basis points (bps) for the year. Taking fees into account (using a proxy of 60 bps), the percentage of underperformers increases to 64.6%. Style preference had a big impact; the median growth manager in our universe performed very well against the Russell 1000® Index, but slightly underperformed the Russell 1000® Growth Index, whereas the median value manager (a larger subset of our overall universe) underperformed the Russell 1000® but outperformed the Russell 1000® Value Index's 26.5% return. Overall, nearly one-fifth of managers outperformed the fee-adjusted index by 250 bps or more.
- Growth stocks once again bested value stocks in 2019. The performance gap between the median growth and value manager was 689 bps, a wide margin by historical standards. Active growth managers posted returns 457 bps above the overall median for the year, marking the third consecutive year where growth managers bested the composite median by more than 400 bps. Conversely, value managers lagged the composite median by 232 bps.
- The success of active managers is cyclical and affected by several factors. Some favorable factors include: larger companies underperforming, US stocks underperforming other developed markets peers, and cash outperforming stocks. None of these factors were present in 2019, as the Russell 1000® Index outperformed the equal-weighted Russell 1000® Index by 670 bps, T-bills lagged the Russell 1000® Index by 29 percentage points (ppts), and the MSCI US Index bested the MSCI EAFE Index by 886 bps.

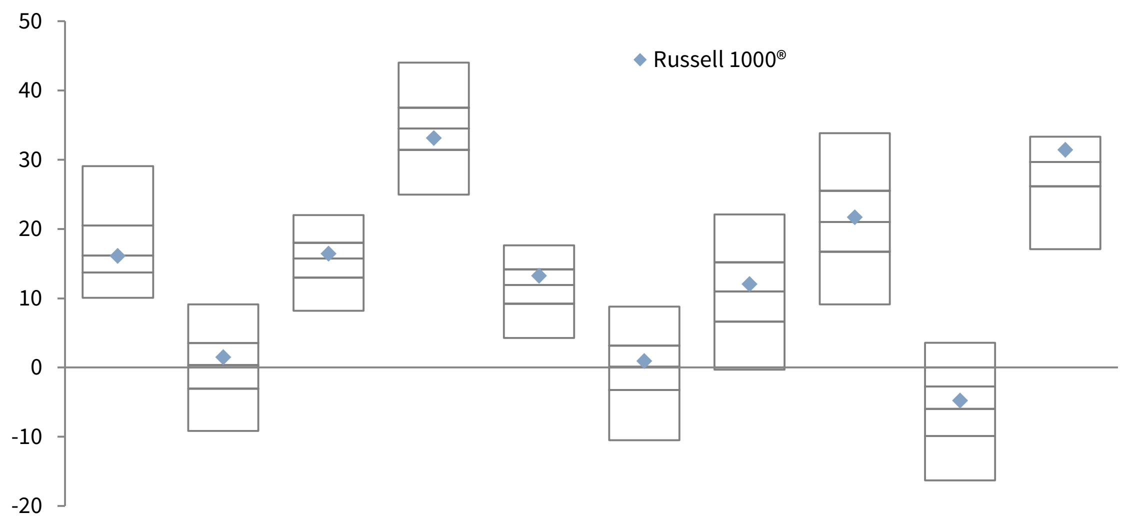
Summary Observations (continued)

- Sector allocation can also play a role in relative performance. Managers were underweight three top-performing sectors (information technology, communication services, and financials), which together accounted for more than half of the Russell 1000® Index's 31.4% return in 2019. Manager overweights to sectors that underperformed the broader index—healthcare, consumer discretionary, and industrials—also dragged on manager performance.
- High dispersion in stock returns is often thought to mean more managers will outperform. In fact, the relationship is weak. Rather, stock dispersion increases 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. In 2019, the dispersion of stock returns was in line with ten-year averages, as was dispersion in manager excess returns. Stock dispersion has been markedly low since the global financial crisis (GFC), but there is still plenty of room for skilled active managers to deliver appealing returns.
- Persistence in manager outperformance is rare, and movement among performance quintiles is fairly common. Of the top-performing quintile of US mid- to large-cap equity managers in the 2010–14 period, nearly half placed in the bottom two quintiles over the subsequent five-year period (2015–19). Long term, nearly all managers in the top-performing quintile over the past ten years experienced below-median returns for at least one three-year period, a factor that endures regardless of investment style.

62% of active US equity managers underperformed the index in 2019

US MID- TO LARGE-CAP EQUITY MANAGER ANNUAL RETURNS BY QUARTILES

2010–19 • Percent (%)



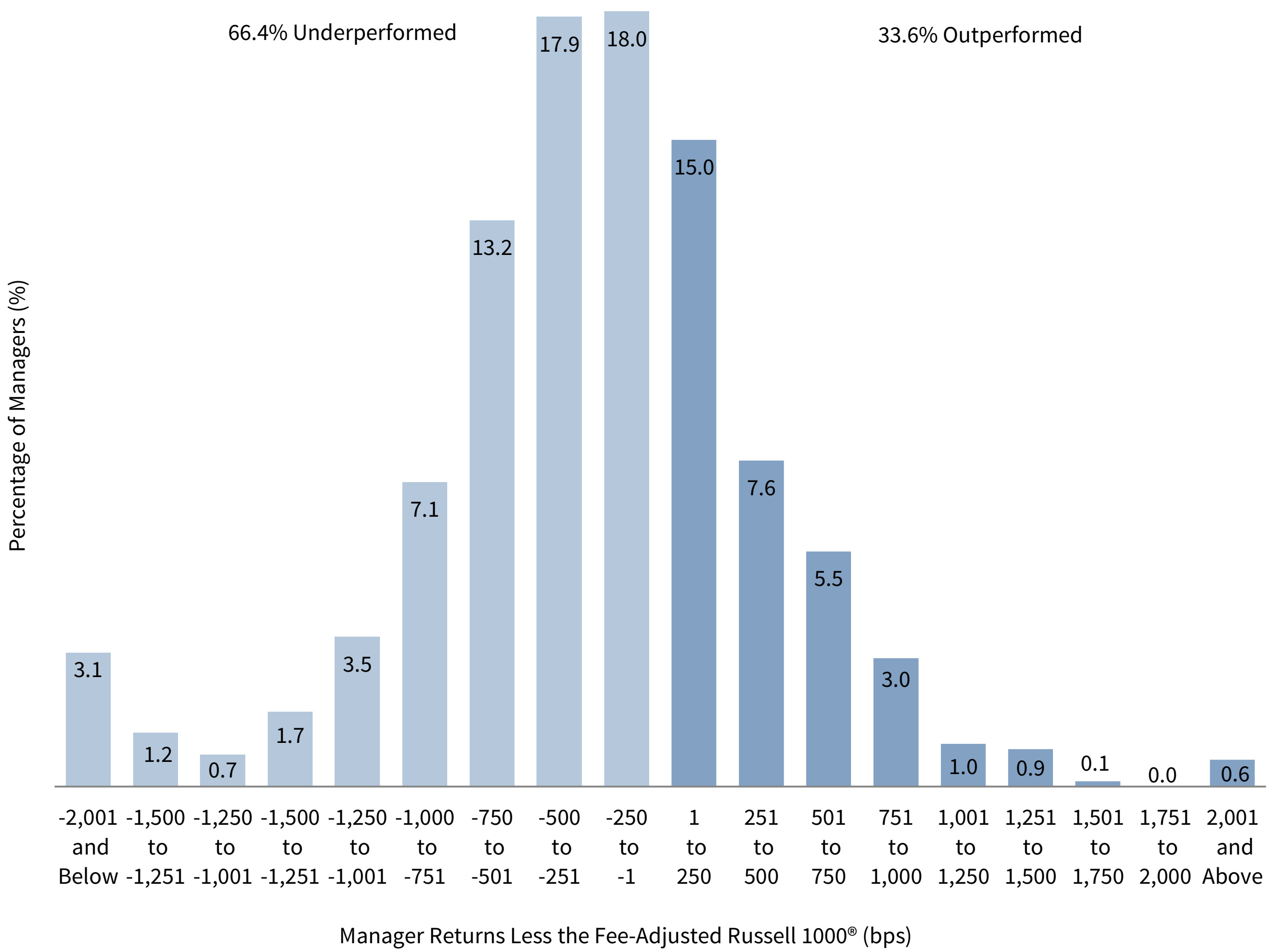
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
5th Percentile	29.1	9.1	22.0	44.0	17.6	8.8	22.1	33.8	3.6	40.0
25th Percentile	20.5	3.5	18.0	37.5	14.2	3.2	15.2	25.5	-2.8	33.3
Median	16.2	0.3	15.7	34.5	11.9	0.1	11.0	21.0	-6.0	29.7
75th Percentile	13.7	-3.1	13.0	31.4	9.2	-3.2	6.6	16.7	-9.9	26.2
95th Percentile	10.1	-9.2	8.2	25.0	4.2	-10.5	-0.3	9.1	-16.3	17.1
Russell 1000®	16.1	1.5	16.4	33.1	13.2	0.9	12.1	21.7	-4.8	31.4
# of Managers	*1,292*	*1,274*	*1,252*	*1,217*	*1,214*	*1,205*	*1,149*	*1,101*	*1,046*	*806*
% Outperforming	**50.6**	**39.4**	**42.0**	**61.1**	**35.5**	**43.2**	**42.8**	**45.5**	**39.6**	**38.0**
% Underperforming	**49.4**	**60.6**	**58.0**	**38.9**	**64.5**	**56.8**	**57.2**	**54.5**	**60.4**	**62.0**

The median manager has underperformed the index in six straight years, and eight of ten years since the GFC. Median manager performance can be skewed by style, as value managers make up the largest proportion of the dataset. Value managers have lagged the broader index in each of the past three years, while growth managers outperformed.

Sources: Cambridge Associates LLC, Frank Russell Company, and Thomson Reuters Datastream.
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 2019 was 66%

US MID- TO LARGE-CAP EQUITY MANAGER RETURNS RELATIVE TO THE FEE-ADJUSTED RUSSELL 1000® INDEX
Calendar Year 2019 • *n = 806*



While just over one-third of managers outperformed the index, 150 managers (18% of the total) added significant value, topping the benchmark by 250 bps or more.

Sources: Cambridge Associates LLC, Frank Russell Company, and Thomson Reuters Datastream.
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 60 bps to the Russell 1000® Index return as a proxy for manager fees. Only managers with performance available for the entire period measured are included.

Managers' sector tilts can affect relative performance

US MID- TO LARGE-CAP EQUITY MANAGER MEDIAN SECTOR ALLOCATIONS VERSUS INDEX WEIGHT
Percent (%) • *n = 637*

	Manager Median vs Index (bps) Underweight vs Index / Overweight vs Index	12/31/2018 Index Weight (%)	CY 2019 Index Returns	Net Allocation Effect (+/-)
Cons Disc	48	10.1	27.4	–
Cons Staples	-116	6.7	26.0	+
Energy	-110	5.7	8.3	+
Financials	-36	14.3	30.7	–
Healthcare	203	13.5	20.1	–
Industrials	45	10.1	29.2	–
IT	-53	20.1	48.7	–
Materials	14	3.0	23.5	–
Real Estate	-119	3.4	27.7	+
Comm Svcs *	-192	9.5	32.9	–
Utilities	-157	2.8	24.2	+
		Russell 1000®	31.4	

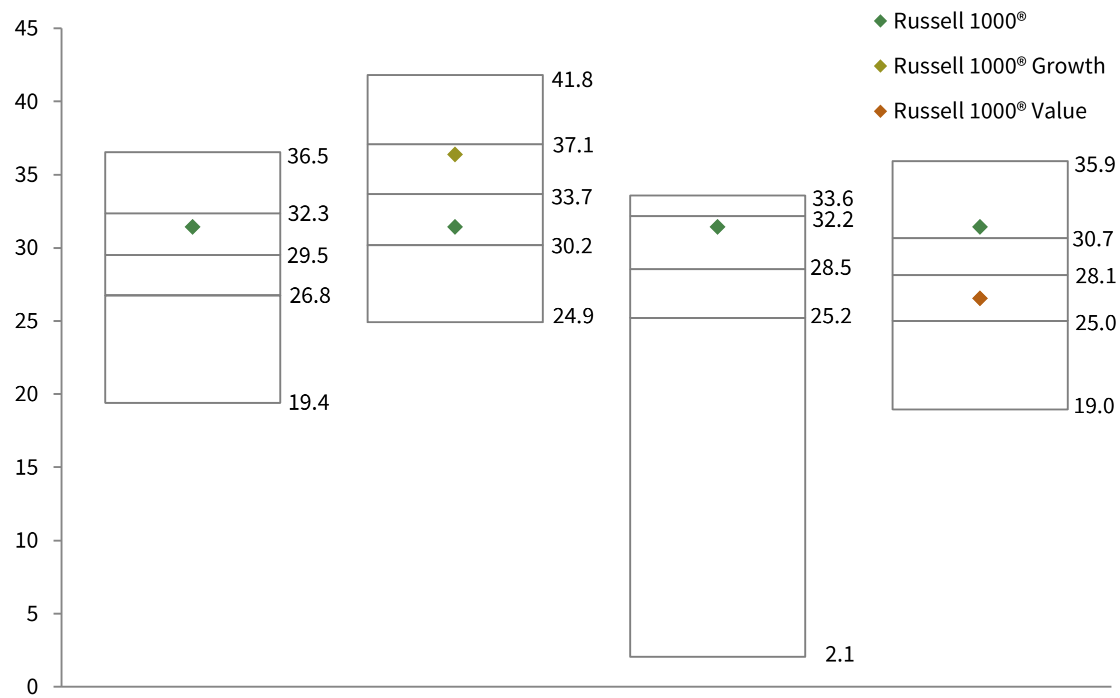
On a median basis, managers started 2019 with a substantial overweight to healthcare, which underperformed the broader index, creating a negative allocation effect. Similarly, underweights to the three top-performing sectors—information technology, communication services, and financials—were also a drag on manager performance.

* 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 637 managers that provided sector allocations as of year-end 2018. Index weights represent year-end 2018 GICS sector allocations of the Russell 1000® 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.

The median growth manager significantly outperformed other styles in 2019

US MID- TO LARGE-CAP EQUITY MANAGER UNIVERSE RETURN QUARTILES BY INVESTMENT PHILOSOPHY

Calendar Year 2019 • Percent (%)



	Diverse	Growth	Opportunistic	Value
High	43.9	49.0	34.1	65.9
Manager Median	29.5	33.7	28.5	28.1
Low	13.0	19.9	-18.8	-0.5
Index*	31.4	36.4	31.4	26.5
Number of Managers	*129*	*248*	*32*	*310*

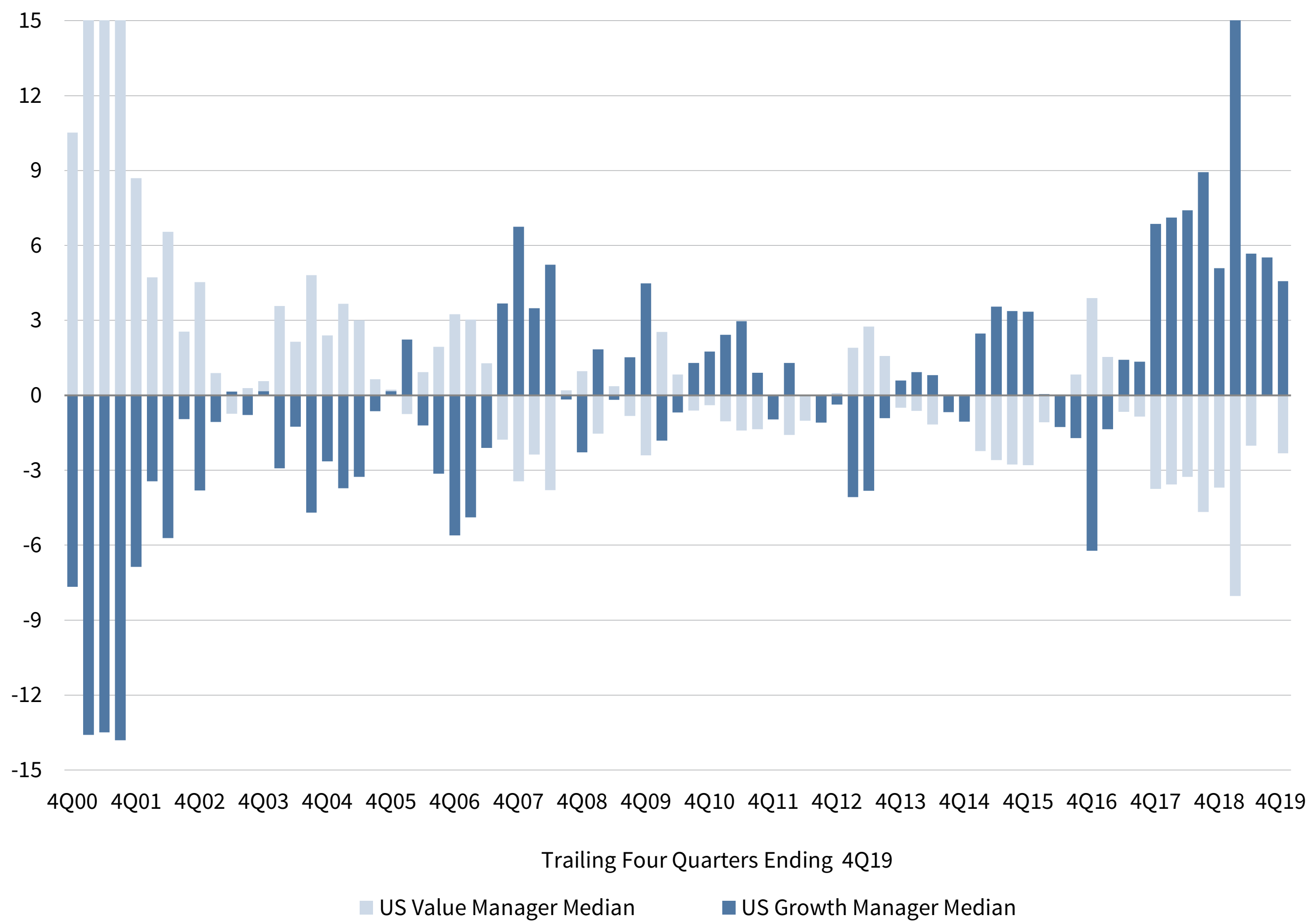
The growth outperformance was a continuation of the trend seen in 2017 and 2018. However, 73% of growth managers trailed the high bar set by the benchmark growth index. Value managers lagged other strategies, but the median value manager outpaced its benchmark.

* Index represents: Russell 1000® Index for Diverse and Opportunistic; Russell 1000® Growth Index for Growth; and Russell 1000® Value Index for Value.
Sources: Cambridge Associates LLC, Frank Russell Company, and Thomson Reuters Datastream.
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.

Growth trounced value again in 2019

US GROWTH AND VALUE MANAGER MEDIAN RETURNS RELATIVE TO US EQUITY COMPOSITE MANAGER MEDIAN RETURNS

Fourth Quarter 2000 – Fourth Quarter 2019 • Percentage Point Differential Above/Below Composite Median



Through first quarter 2019, the differential between median growth managers and median value managers reached its widest margin since the late 1990s during the dot-com bubble. The differential remained high relative to history through fourth quarter 2019.

Source: Cambridge Associates LLC.

Notes: Y-axis scale capped for graphing purposes. In the rolling four-quarter periods ended first quarter, second quarter, and third quarter 2001, the median value manager outperformed the composite median by 21.0, 21.1, and 16.7 percentage points, respectively. Through first quarter 2019, the median growth manager outperformed the composite median by 16.9 percentage points. 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. 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.

Investment styles go in and out of favor over time

CYCLICAL NATURE OF US COMMON STOCK INVESTMENT PHILOSOPHIES

2000–19 • Percent (%)

Annual Total Returns

Year	Median Growth Mgr	n	Median Value Mgr	n	Median Opportunistic Mgr	n	Large-Cap Stocks (Russell 1000®)
2000	-6.5	*387*	**11.8**	*385*	0.6	*60*	-7.8
2001	-16.3	*426*	**-0.6**	*403*	-9.1	*61*	-12.4
2002	-24.5	*441*	**-16.1**	*419*	-19.8	*57*	-21.7
2003	30.8	*442*	**31.1**	*427*	27.9	*58*	29.9
2004	10.6	*445*	**15.5**	*446*	13.4	*59*	11.4
2005	**8.4**	*446*	8.4	*457*	8.3	*59*	6.3
2006	9.3	*454*	**18.3**	*464*	15.3	*59*	15.5
2007	**14.2**	*449*	4.0	*498*	7.8	*59*	5.8
2008	-39.2	*449*	-35.9	*494*	**-34.7**	*58*	-37.6
2009	**35.0**	*433*	28.1	*478*	28.6	*55*	28.4
2010	**17.9**	*405*	15.7	*479*	16.1	*55*	16.1
2011	-0.6	*405*	-0.1	*474*	-0.6	*56*	**1.5**
2012	15.3	*391*	15.9	*467*	15.9	*57*	**16.4**
2013	**35.1**	*379*	34.0	*449*	34.9	*56*	33.1
2014	10.9	*376*	11.7	*448*	11.9	*53*	**13.2**
2015	3.4	*372*	-2.7	*439*	-0.2	*53*	0.9
2016	4.7	*346*	**14.9**	*426*	9.2	*51*	12.1
2017	**27.8**	*326*	17.2	*403*	20.7	*47*	21.7
2018	**-2.0**	*312*	-9.3	*376*	-5.8	*48*	-4.8
2019	**33.7**	*248*	28.1	*311*	28.5	*32*	31.4

Average Annual Compound Returns: Periods Ended December 31, 2019

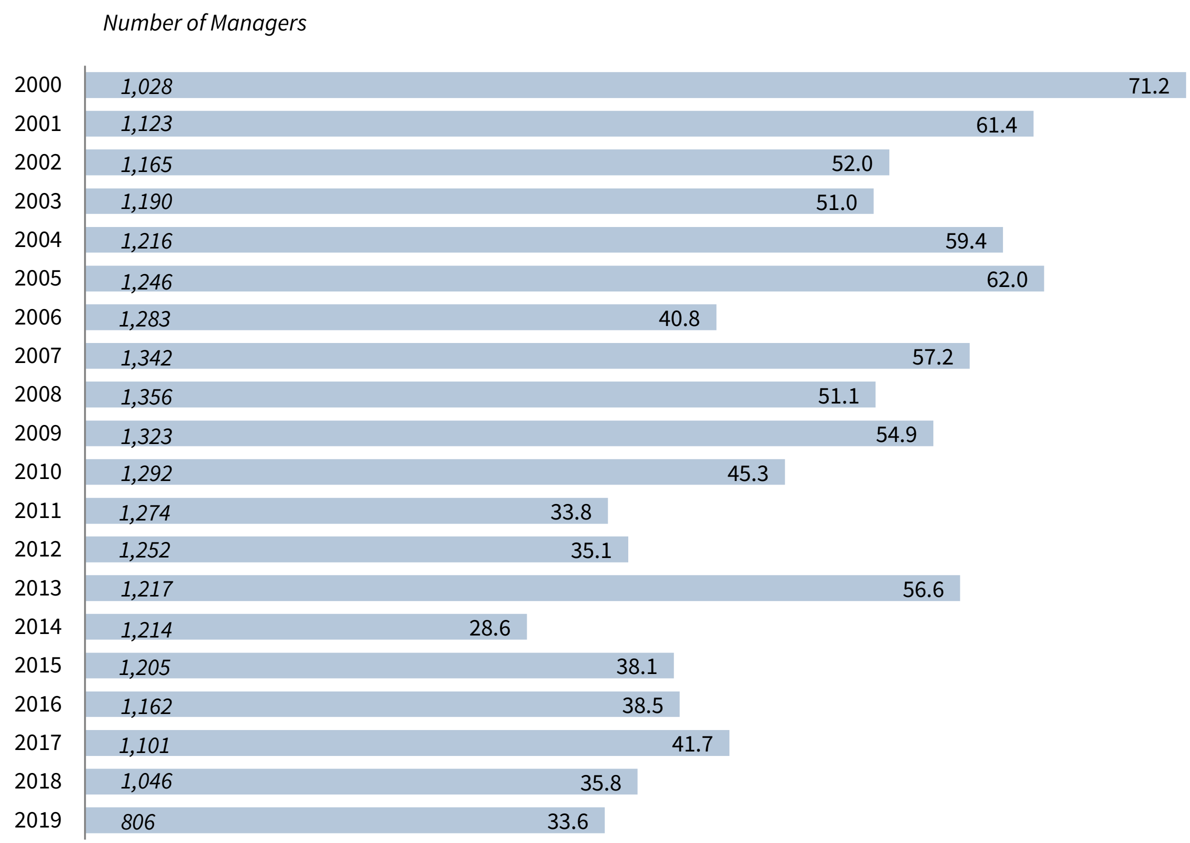
	Median Growth Mgr	n	Median Value Mgr	n	Median Opportunistic Mgr	n	Large-Cap Stocks (Russell 1000®)
Trailing 15-Yr	**10.4**	*140*	8.7	*190*	9.6	*19*	9.1
Trailing 10-Yr	**14.4**	*198*	12.0	*245*	12.7	*26*	13.5
Trailing 5-Yr	**13.0**	*235*	8.8	*298*	10.1	*28*	11.5
Trailing 3-Yr	**18.7**	*243*	10.5	*307*	13.9	*29*	15.0

Growth has outpaced value in recent years, and markedly so over trailing three- and five-year lookback periods. Styles experience cyclical shifts; value outperformed growth in six of seven years during 2000–06.

Sources: Cambridge Associates LLC, Frank Russell Company, and Thomson Reuters Datastream.
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.

Active US equity manager relative performance is cyclical

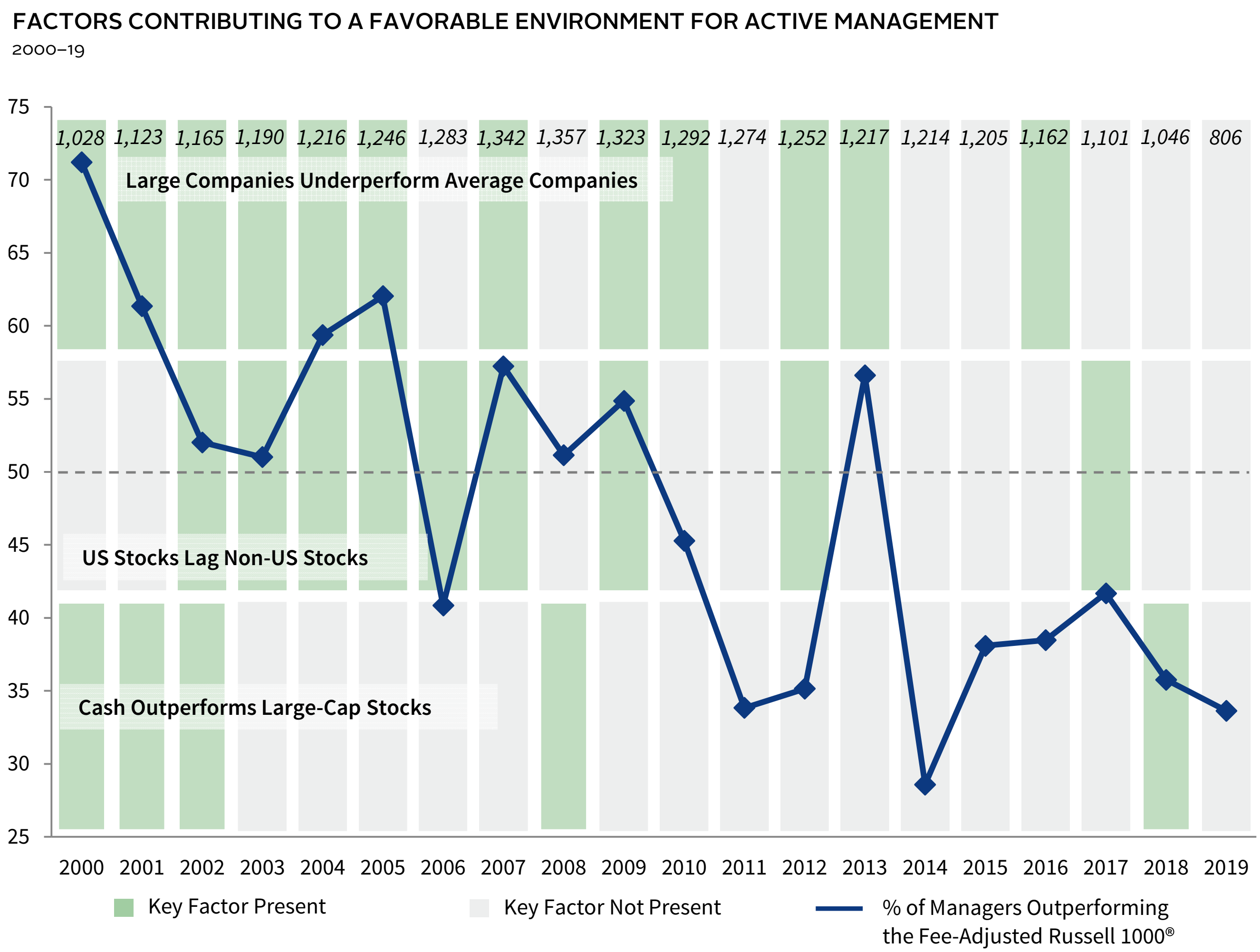
PERCENTAGE OF US MID- TO LARGE-CAP MANAGERS OUTPERFORMING THE FEE-ADJUSTED RUSSELL 1000® INDEX
2000–19



Since the GFC, a majority of managers have struggled to top the fee-adjusted benchmark on an annual basis, with only about one-third of managers outperforming on average since 2010.

Sources: Cambridge Associates LLC, Frank Russell Company, and Thomson Reuters Datastream.
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 60 bps to the Russell 1000® 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 environment was not favorable for active managers in 2019



Many factors contribute to active manager outperformance, but the presence of three key factors can create a more favorable environment for active management in general. None of these factors were present in 2019.

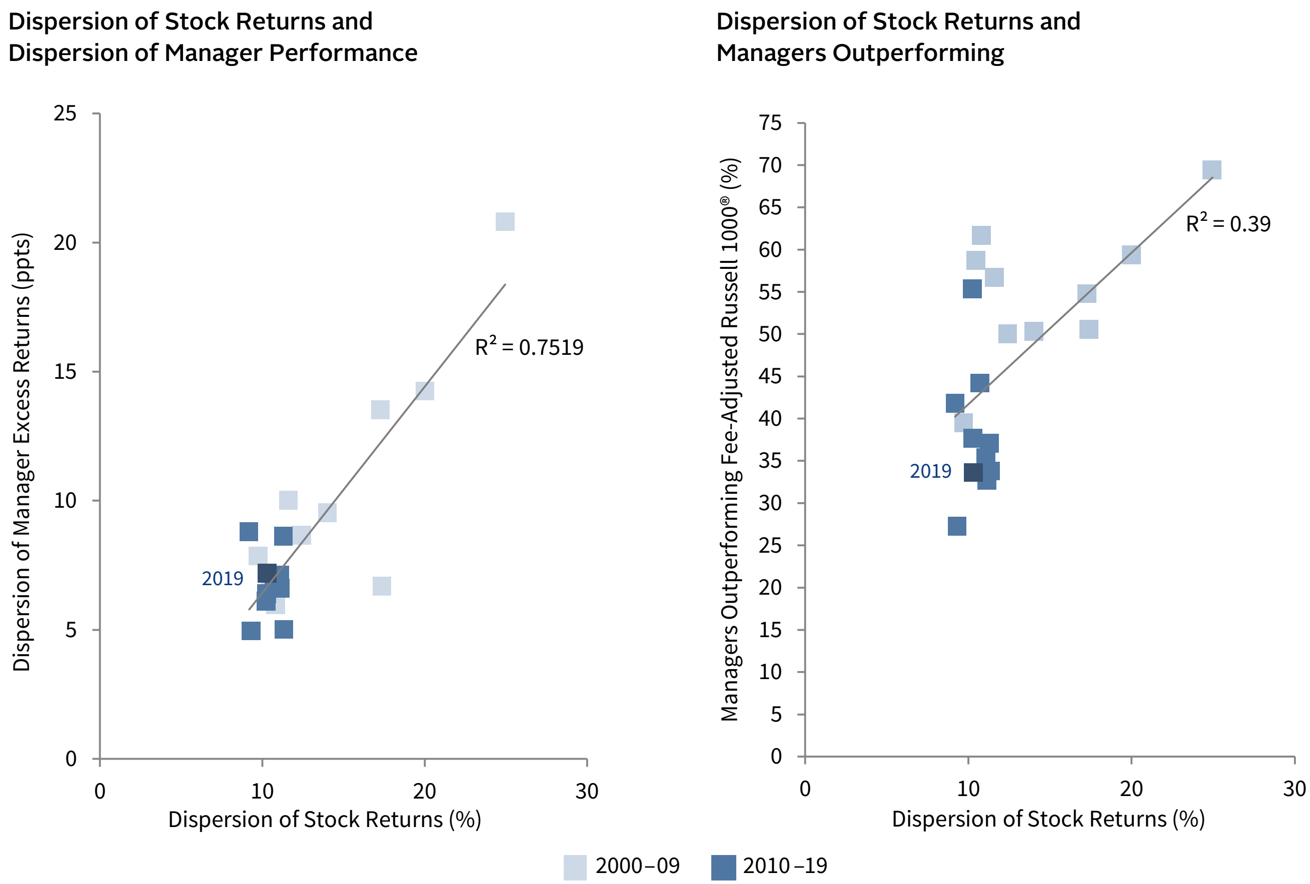
Sources: BofA Merrill Lynch, Cambridge Associates LLC, Federal Reserve, Frank Russell Company, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: *n* denotes number of managers. Factors are represented by: capitalization-weighted Russell 1000® Index ("large companies"), equal-weighted Russell 1000® Index ("average companies"), MSCI US Index ("US stocks"), MSCI EAFE Index ("non-US stocks"), BofA Merrill Lynch 91-Day Treasury Bills ("cash"), and Russell 1000® Index ("large-cap stocks"). For more detail on the impact of these factors in each year, see the Appendix. 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 60 bps to the Russell 1000® 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.

Lower dispersion of stock returns often leads to lower dispersion of excess returns

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

2000–19



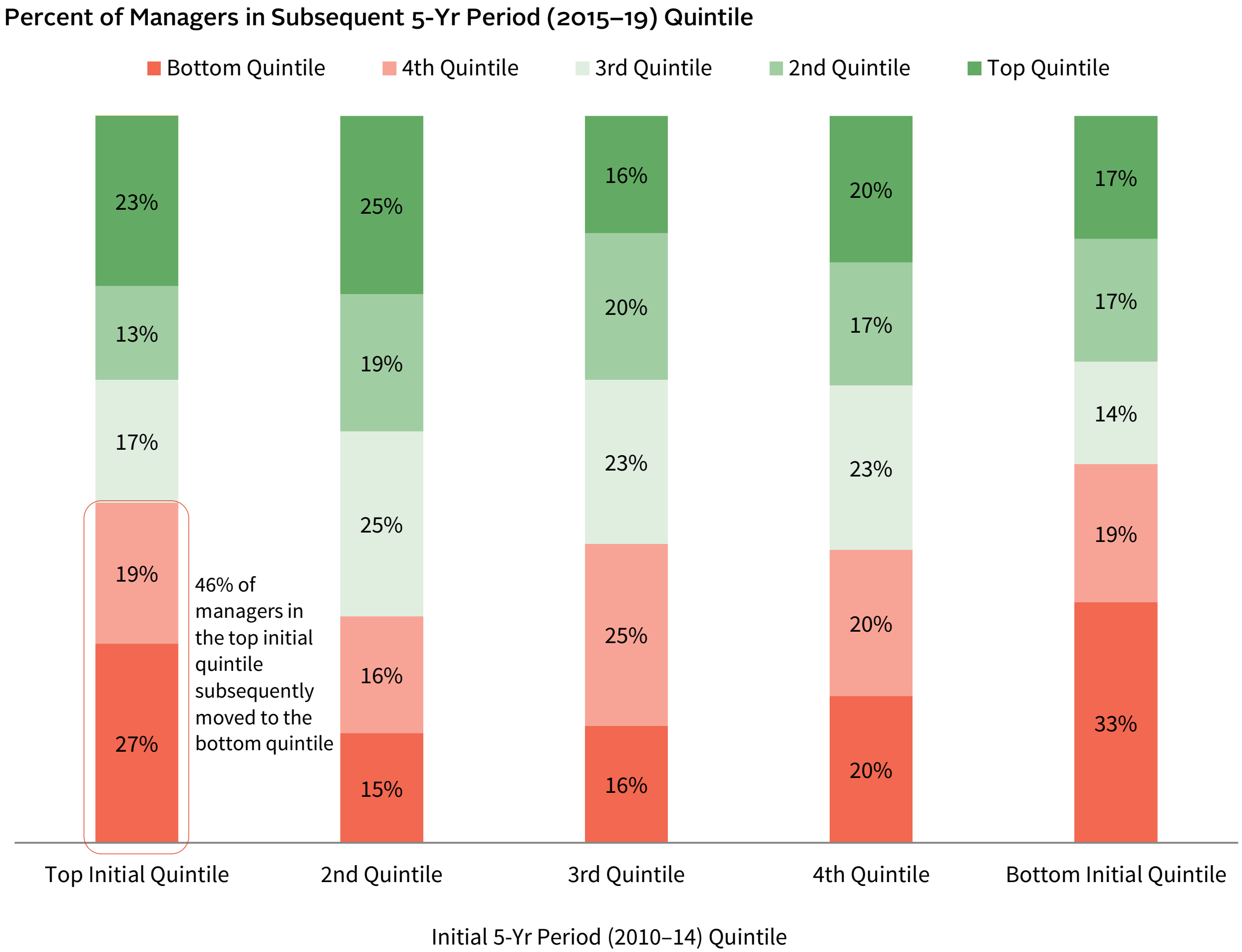
Both stock return dispersion and dispersion of manager returns were in line with ten-year averages in 2019, remaining low relative to the pre-GFC period.

Sources: Cambridge Associates LLC, FactSet Research Systems, Frank Russell Company, and Thomson Reuters Datastream.

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 US mid- to large-cap 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 60 bps to the Russell 1000® 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.

Movement between top and bottom quintiles is fairly common

ANALYSIS OF US MID- TO LARGE-CAP MANAGER RETURNS BY QUINTILE OVER 5-YR PERIODS
2010–19 • *n = 620*



Nearly half of top-performing managers in the initial five-year period fell to the bottom two quintiles in the subsequent five-year period.

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.

Long-term outperformers often underperform in shorter-term periods

HOW MANY TOP US MID- TO LARGE-CAP MANAGERS UNDERPERFORM AT SOME POINT?

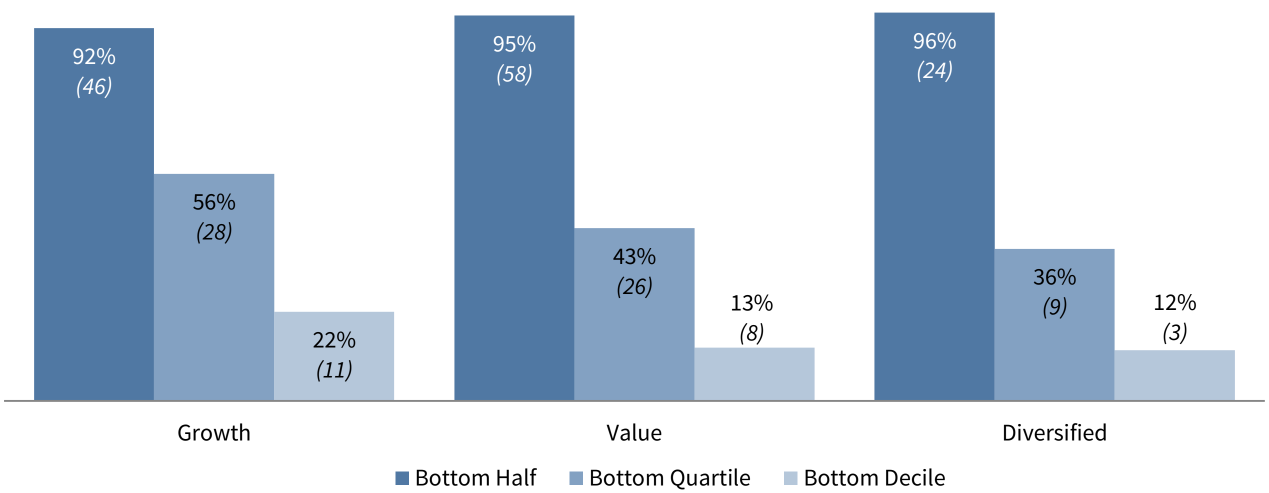
As of Fourth Quarter 2019

Sample Interpretation:

The graph shows that 92% of top quartile growth managers in this ten-year period endured at least one three-year period of below-median performance during the ten years in which they were one of the best-performing managers among their peers. Of top quartile managers, 56% fell into the bottom quartile of growth manager returns for at least one three-year period in this decade. Note that the data apply to the winners—the top quartile managers over ten years.

Percentage (Number) of Top Managers Whose Rolling 3-Yr Ranking Fell at Least Once into the Bottom of the Managers' Respective Distribution

Top Quartile Over 10 Years
Percent (%)



Number Ranked in Top Quartile

Growth	Value	Diversified
50	61	24

One-fifth of top-quartile growth managers fell into the bottom decile for at least one three-year period in the past ten years. Regardless of style, nearly all top-quartile managers experienced bouts of short-term underperformance.

Source: Cambridge Associates LLC.
Notes: Top managers are selected based on cumulative wealth for the entire ten-year period. 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.

APPENDIX: YEAR-BY-YEAR ANALYSIS OF KEY FACTORS CONTRIBUTING TO A MORE OR LESS FAVORABLE ENVIRONMENT FOR ACTIVE MANAGEMENT

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Small company outperformance has usually been a tailwind for active managers

The tailwind was nonexistent in 2019 as capitalization-weighted stocks outperformed the average company, and the median manager underperformed the index.

ASSESSING THE IMPACT OF CAPITALIZATION BIAS ON ACTIVE MANAGER PERFORMANCE

2000–19

Active Managers Have Beaten the Russell 1000® Index 83% of the Time When the Largest Companies Have Underperformed the Average Company . . .

Year	Total Return (%) Cap-Wtd R1000®	Total Return (%) Equal-Wtd R1000®	Total Return (%) Median Mid-/ Large-Cap Manager	*n*	Cap-Wtd Minus Equal-Wtd (ppts)	Mgr Value Added vs R1000® (ppts)
2009	28.4	52.6	30.4	*1,323*	-24.2	1.9
2000	-7.8	12.4	1.2	*1,028*	-20.1	9.0
2001	-12.4	1.6	-9.3	*1,123*	-14.0	3.2
2003	29.9	42.9	30.6	*1,190*	-13.0	0.7
2004	11.4	19.7	13.2	*1,216*	-8.3	1.8
2005	6.3	14.0	8.2	*1,246*	-7.8	2.0
2010	16.1	23.8	16.2	*1,292*	-7.7	0.1
2016	12.1	16.4	11.0	*1,162*	-4.3	-1.1
2002	-21.7	-17.7	-20.7	*1,165*	-3.9	1.0
2007	5.8	9.5	7.5	*1,342*	-3.7	1.7
2013	33.1	35.3	34.5	*1,217*	-2.2	1.4
2012	16.4	16.5	15.7	*1,252*	-0.1	-0.7
Median	11.7	16.4	12.1		-7.8	1.5

. . . and Lagged the Index 88% of the Time When the Largest Companies Have Outperformed the Average Company

Year	Total Return (%) Cap-Wtd R1000®	Total Return (%) Equal-Wtd R1000®	Total Return (%) Median Mid-/ Large-Cap Manager	*n*	Cap-Wtd Minus Equal-Wtd (ppts)	Mgr Value Added vs R1000® (ppts)
2006	15.5	14.9	15.0	*1,283*	0.5	-0.5
2011	1.5	0.7	0.3	*1,274*	0.8	-1.2
2008	-37.6	-38.9	-36.8	*1,357*	1.3	0.8
2014	13.2	11.1	11.9	*1,214*	2.2	-1.3
2018	-4.8	-8.8	-5.9	*1,046*	4.0	-1.2
2017	21.7	17.4	21.0	*1,101*	4.3	-0.7
2015	0.9	-4.0	0.1	*1,205*	4.9	-0.8
2019	**31.4**	**24.7**	**29.7**	***807***	**6.7**	**-1.8**
Median	7.4	5.9	6.1		3.1	-1.0

Sources: Cambridge Associates LLC, Frank Russell Company, and Thomson Reuters Datastream.
Notes: The most recent year is bolded. 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.

Off-benchmark holdings can benefit managers

When non-US stocks outperform US stocks, active managers have beaten the index more consistently. In 2019, non-US stocks underperformed US stocks, and active managers lagged the Russell 1000® Index.

ASSESSING THE IMPACT OF NON-US DEVELOPED MARKET STOCK PERFORMANCE ON ACTIVE MANAGER PERFORMANCE

2000–19

Active Managers Have Outperformed the Russell 1000® Index 67% of the Time When the Index Has Lagged the MSCI EAFE Index . . .

Year	Total Return (%) Russell 1000®	MSCI EAFE	Median Mid-/ Large-Cap Manager	*n*	R1000® Minus MSCI EAFE (ppts)	Mgr Value Added vs R1000® (ppts)
2006	15.5	26.3	15.0	*1,283*	-10.9	-0.5
2004	11.4	20.2	13.1	*1,216*	-8.8	1.7
2003	29.9	38.6	30.6	*1,190*	-8.7	0.7
2005	6.3	13.5	8.2	*1,246*	-7.3	2.0
2002	-21.7	-15.9	-20.6	*1,165*	-5.7	1.0
2007	5.8	11.2	7.5	*1,342*	-5.4	1.7
2017	21.7	25.0	21.0	*1,101*	-3.3	-0.7
2009	28.4	31.8	30.4	*1,323*	-3.3	1.9
2012	16.4	17.3	15.7	*1,252*	-0.9	-0.7
Median	**15.5**	**20.2**	**15.0**		**-5.7**	**1.0**

. . . and Outperformed the Russell 1000® Index 45% of the Time When the Index Has Beaten the MSCI EAFE Index

Year	Total Return (%) Russell 1000®	MSCI EAFE	Median Mid-/ Large-Cap Manager	*n*	R1000® Minus MSCI EAFE (ppts)	Mgr Value Added vs R1000® (ppts)
2015	0.9	-0.8	0.1	*1,205*	1.7	-0.8
2008	-37.6	-43.4	-36.8	*1,357*	5.8	0.8
2000	-7.8	-14.2	1.2	*1,028*	6.4	9.0
2010	16.1	7.8	16.2	*1,292*	8.3	0.1
2001	-12.4	-21.4	-9.3	*1,123*	9.0	3.1
2018	-4.8	-13.8	-5.9	*1,046*	9.0	-1.2
2019	**31.4**	**22.0**	**29.7**	***807***	**9.4**	**-1.8**
2013	33.1	22.8	34.5	*1,217*	10.3	1.4
2016	12.1	1.0	11.0	*1,162*	11.1	-1.1
2011	1.5	-12.1	0.3	*1,274*	13.6	-1.2
2014	13.2	-4.9	11.9	*1,214*	18.1	-1.3
Median	**1.5**	**-4.9**	**1.2**		**9.0**	**-0.8**

Sources: Cambridge Associates LLC, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: The most recent year is bolded. 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.

Years of cash outperformance have been good for active managers

But such years are uncommon; in 2019, the 91-Day T-Bill lagged equities for the 15th time in the past 20 years, and active managers lagged the Russell 1000 ® Index.

ASSESSING THE IMPACT OF CASH DRAG ON ACTIVE MANAGER PERFORMANCE

2000–19

Active Manager Performance versus the Russell 1000® Index Has Been Mixed When the Index Has Beaten the 91-Day T-Bill . . .

Year	Total Return (%) Russell 1000®	91-Day T-Bill	Median Mid-/ Large-Cap Manager	*n*	R1000® Minus T-Bill (ppts)	Mgr Value Added vs R1000® (ppts)
2013	33.1	0.1	34.5	*1,212*	33.0	1.4
2019	**31.4**	**2.3**	**29.7**	***807***	**29.1**	**-1.8**
2003	29.9	1.1	30.6	*1,191*	28.7	0.7
2009	28.4	0.2	30.4	*1,322*	28.2	2.0
2017	21.7	0.9	21.0	*1,078*	20.8	-0.7
2012	16.4	0.1	15.7	*1,248*	16.3	-0.7
2010	16.1	0.1	16.2	*1,289*	16.0	0.1
2014	13.2	0.0	11.9	*1,207*	13.2	-1.3
2016	12.1	0.3	11.0	*1,149*	11.7	-1.1
2006	15.5	4.8	15.0	*1,285*	10.6	-0.5
2004	11.4	1.3	13.2	*1,217*	10.1	1.8
2005	6.3	3.1	8.3	*1,247*	3.2	2.0
2011	1.5	0.1	0.3	*1,270*	1.4	-1.2
2015	0.9	0.1	0.1	*1,196*	0.9	-0.8
2007	5.8	5.0	7.5	*1,343*	0.8	1.7
Median	**15.5**	**0.3**	**15.0**		**13.2**	**-0.5**

. . . But When the Russell 1000® Index Has Lagged the 91-Day T-Bill, Active Managers Have Outperformed the Index 80% of the Time

Year	Total Return (%) Russell 1000®	91-Day T-Bill	Median Mid-/ Large-Cap Manager	*n*	R1000® Minus T-Bill (ppts)	Mgr Value Added vs R1000® (ppts)
2018	-4.8	1.9	-6.1	*882*	-6.7	-1.4
2000	-7.8	6.2	1.2	*1,028*	-14.0	9.0
2001	-12.4	4.4	-9.3	*1,123*	-16.9	3.2
2002	-21.7	1.8	-20.7	*1,165*	-23.4	1.0
2008	-37.6	2.1	-36.9	*1,356*	-39.7	0.7
Median	-12.4	**2.1**	**-9.3**		**-16.9**	**1.0**

Sources: BofA Merrill Lynch, Cambridge Associates LLC, Federal Reserve, Frank Russell Company, and Thomson Reuters Datastream.
Notes: The most recent year is bolded. 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.

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