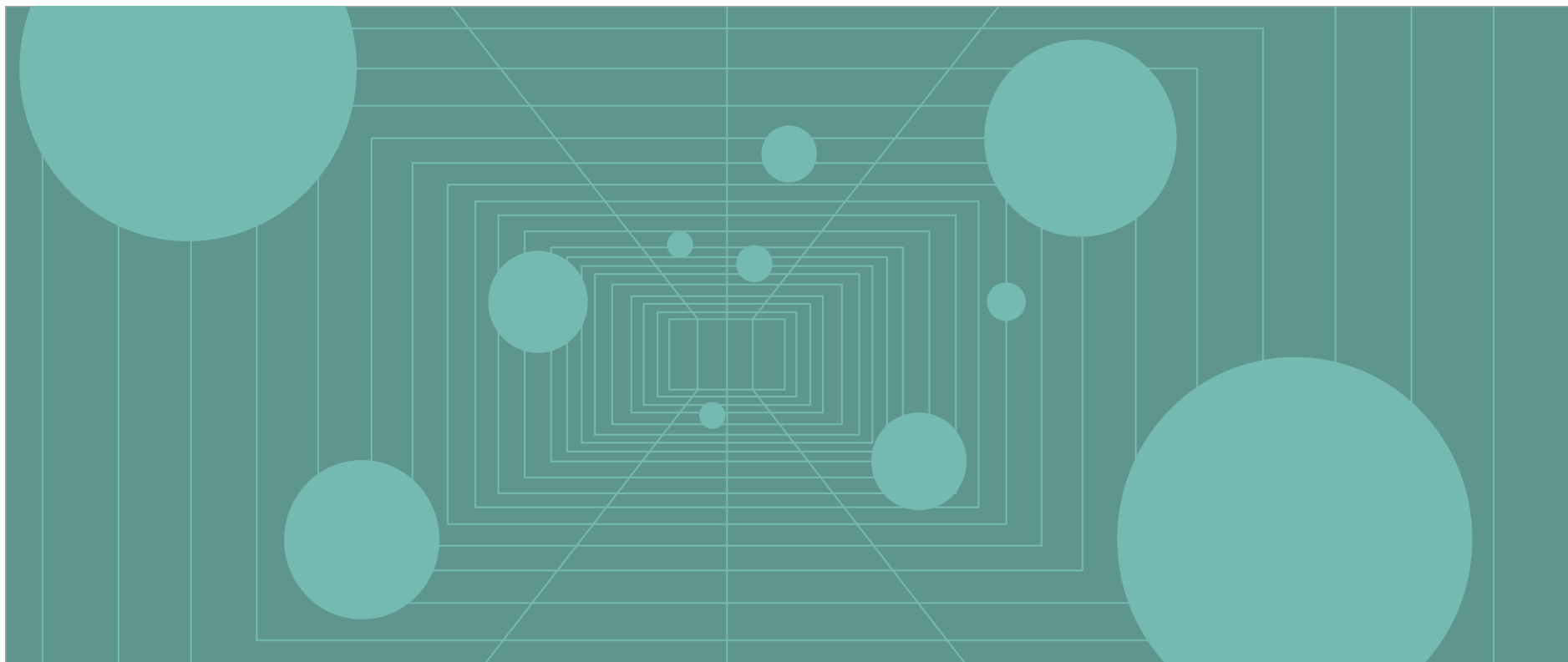


# EMERGING MARKETS EQUITY MANAGER PERFORMANCE

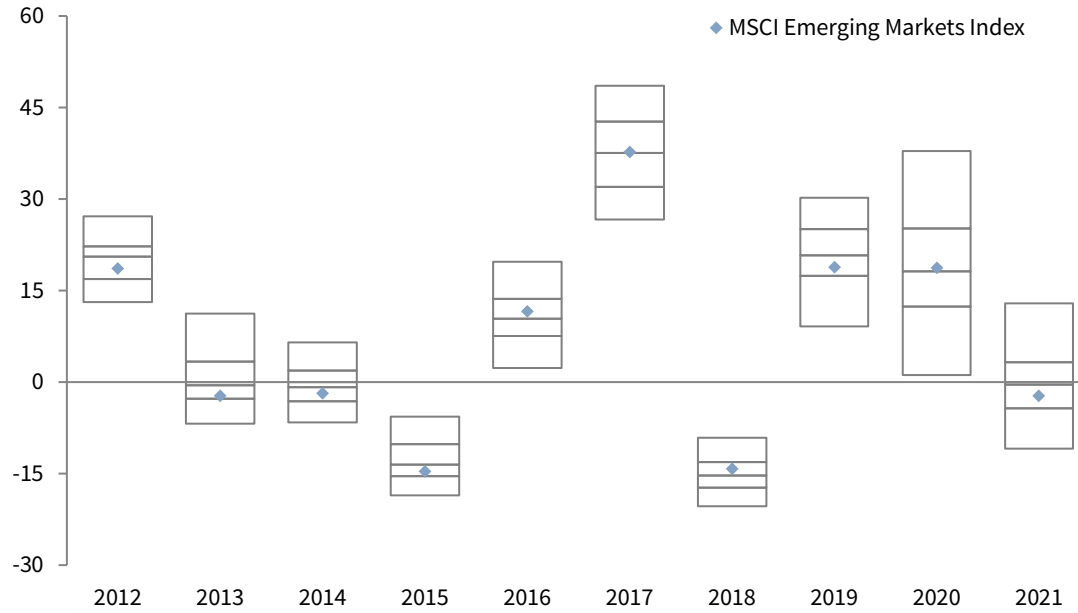
ANALYSIS OF 2021 AND PERFORMANCE SINCE 2001



## 62% of managers topped the index in 2021

### EMERGING MARKETS EQUITY MANAGERS ANNUAL RETURNS BY QUARTILES

2012–21 • Percent (%)



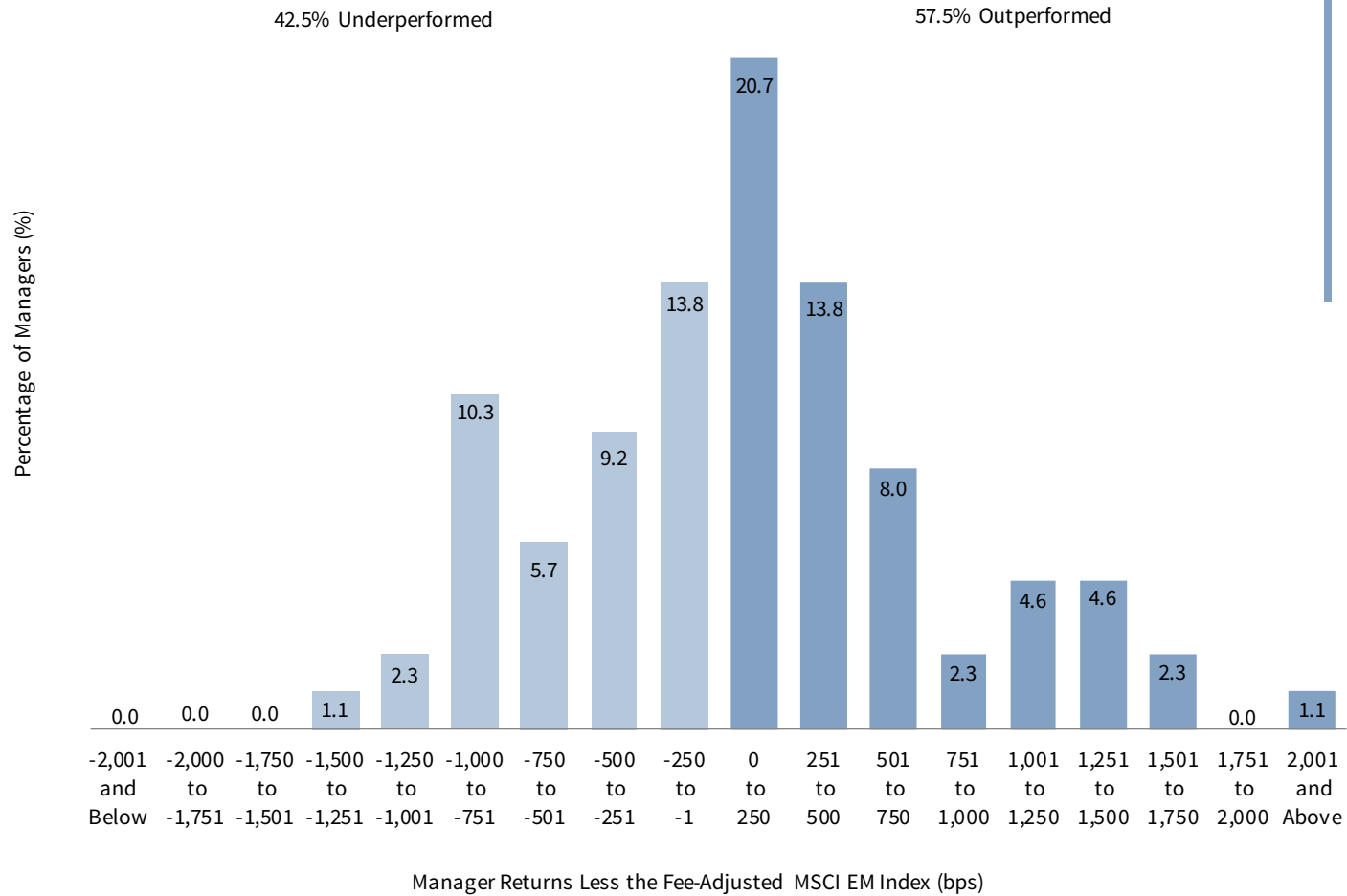
On a median basis, active managers declined but held up better than the MSCI Emerging Markets Index.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
5th Percentile	27.2	11.2	6.5	-5.6	19.7	48.6	-9.1	30.2	37.9	12.9
25th Percentile	22.3	3.3	1.9	-10.2	13.6	42.7	-13.1	25.1	25.2	3.3
Median	20.5	-0.5	-0.8	-13.6	10.4	37.5	-15.3	20.8	18.1	-0.4
75th Percentile	16.9	-2.7	-3.2	-15.4	7.5	32.0	-17.3	17.4	12.4	-4.3
95th Percentile	13.1	-6.9	-6.6	-18.6	2.3	26.7	-20.3	9.1	1.1	-10.9
MSCI EM Index	18.6	-2.3	-1.8	-14.6	11.6	37.8	-14.2	18.9	18.7	-2.2
# of Managers	104	124	130	135	139	135	137	138	128	87
<b>% Outperforming</b>	68.3	70.2	64.6	63.7	38.1	48.9	36.5	64.5	45.3	62.1
<b>% Underperforming</b>	31.7	29.8	35.4	36.3	61.9	51.1	63.5	35.5	54.7	37.9

## Relative to the fee-adjusted index, 57% of managers outperformed

### MANAGER RETURNS RELATIVE TO THE FEE-ADJUSTED MSCI EMERGING MARKETS INDEX

Calendar Year 2021 • n = 87



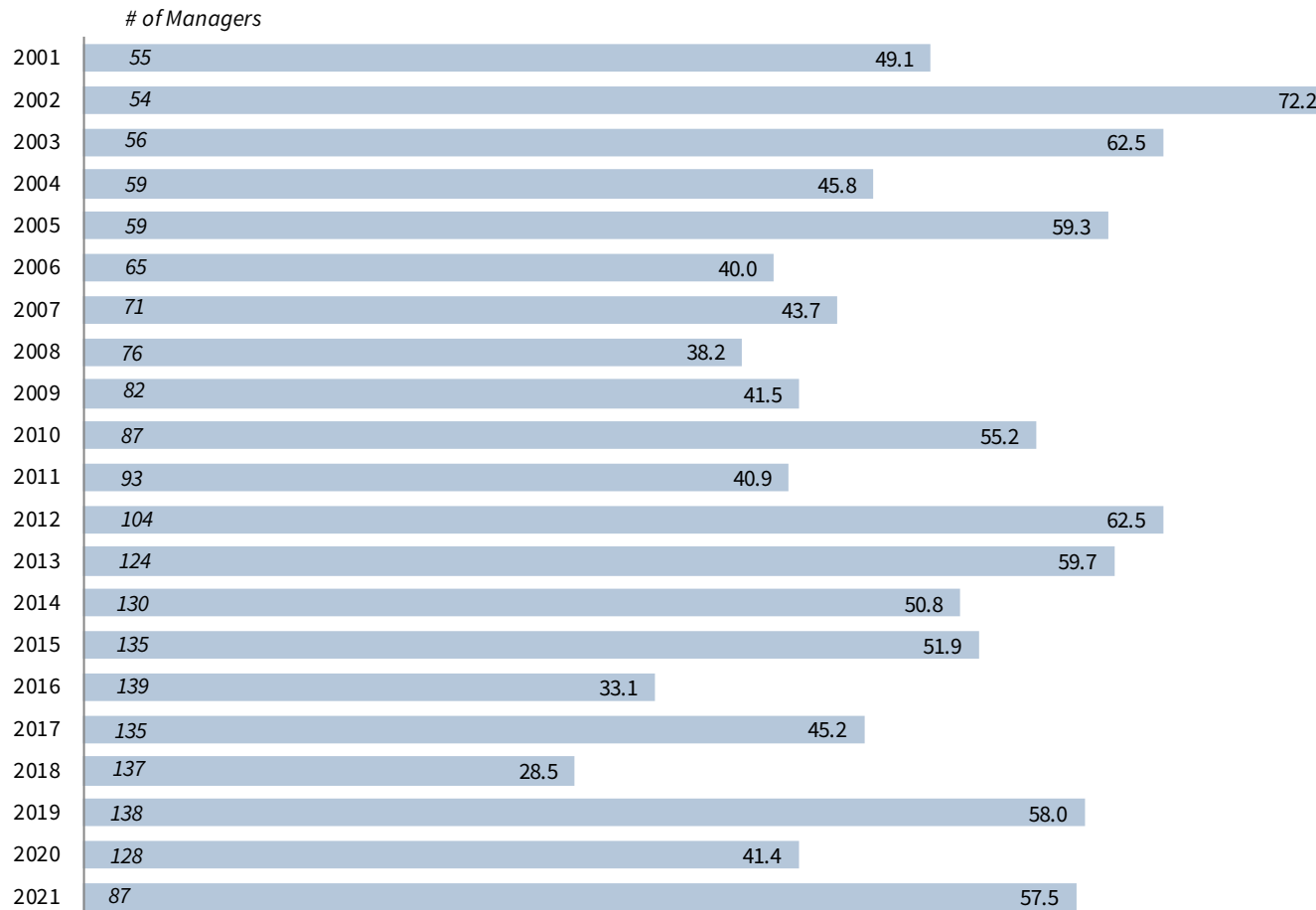
After adjusting for fees, just 57% of managers outperformed the index.

13% of managers bested the index by at least 1,000 bps, a considerably larger portion than the 3% that trailed the index by more than 1,000 bps.

## Active manager outperformance is cyclical

### PERCENTAGE OF EMERGING MARKETS EQUITY MANAGERS OUTPERFORMING THE FEE-ADJUSTED MSCI EMERGING MARKETS INDEX

2001–21



The median emerging markets equity manager underperformed the fee-adjusted index in four of the past six years. This contrasts with the years immediately following the Global Financial Crisis, when managers outperformed five of six years from 2010 through 2015.

Since 2001, the median manager has outperformed about as often as it has underperformed.

## Managers' sector allocations can affect relative performance

### EMERGING MARKETS EQUITY MANAGERS' MEDIAN SECTOR ALLOCATIONS VERSUS INDEX WEIGHT

Percent (%) • n = 100

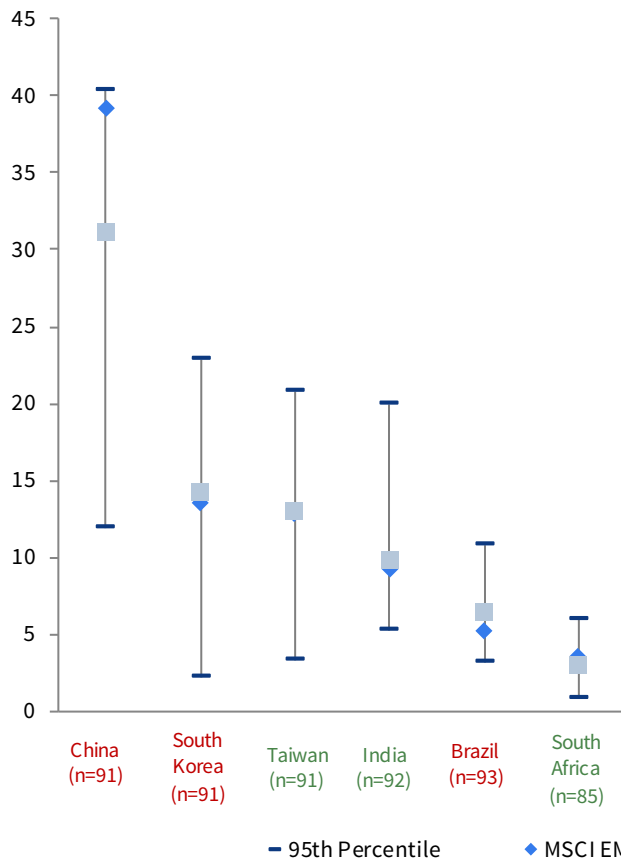
	Manager Median Underweight/Overweight vs Index (bps)		12/31/2020 Index Weight (%)	CY 2021 Index Returns	Net Allocation Effect (+/-)
	Underweight vs Index	Overweight vs Index			
Utilities	-62		2.0	13.3	-
Real Estate	-41		2.1	-21.7	+
Materials	-63		7.6	9.8	-
IT		117	20.5	10.4	+
Industrials		106	4.3	8.6	+
Healthcare	-70		4.7	-19.8	+
Financials	-40		18.0	8.6	-
Energy	-133		5.0	21.7	-
Con Stap		49	5.9	-4.6	-
Con Disc	-165		18.3	-29.0	+
Comm Svcs	-156		11.6	-9.0	+
			MSCI EM	-2.2	

On a median basis, managers' largest sector bets mostly paid off. Four of the five directional bets greater than 100 bps added value, as IT and industrials were overweighted and outperformed, while consumer discretionary and communication services were underweighted and lagged. The exception was energy, which the median manager underweighted 133 bps and was the top-performing sector in 2021.

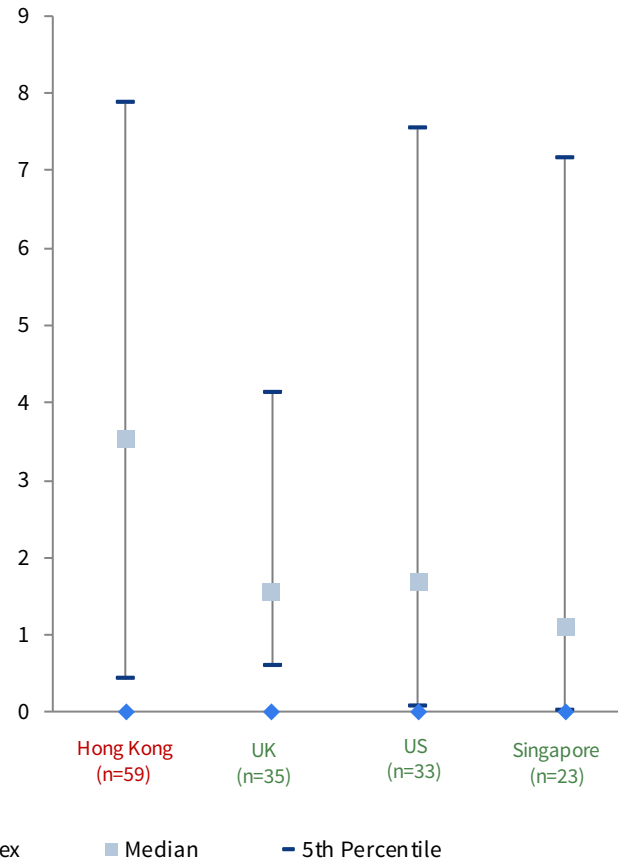
# Country bets can significantly affect relative performance

**EMERGING MARKETS EQUITY MANAGERS' COUNTRY ALLOCATIONS VS THE MSCI EMERGING MARKETS INDEX**  
*n = 98*

**Manager Allocations to Top MSCI Emerging Markets Countries (> 3% Index Weight )**



**Non-Zero Manager Allocations to Off-Benchmark Countries Where >20% Managers Have Allocations**



A plurality of managers had allocations to four countries not in the MSCI EM Index.

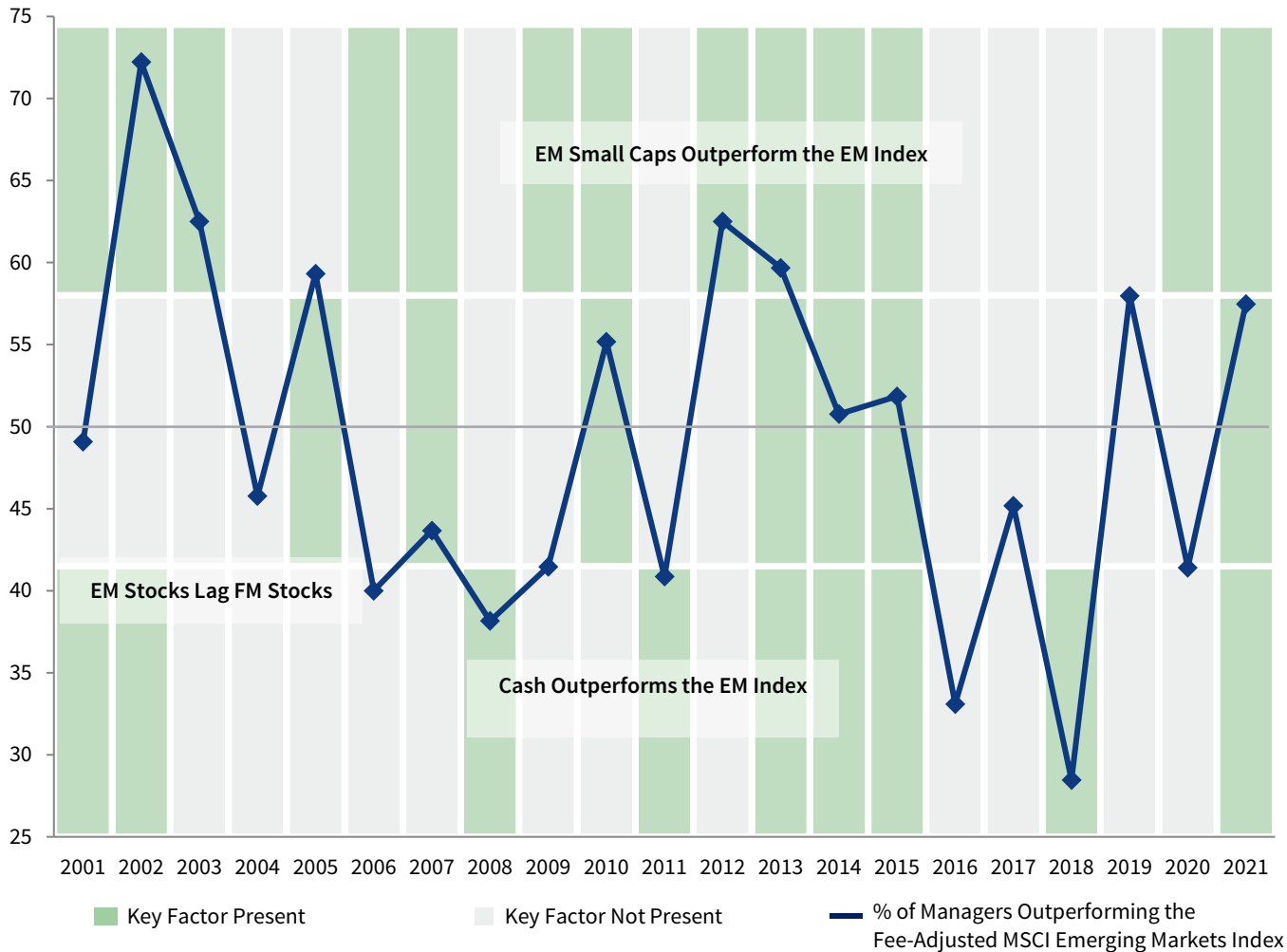
Hong Kong had the highest off-benchmark median allocation and trailed the broader index by about 170 bps; however, the other three largest off-benchmark bets all bested the MSCI EM Index, two of which—the US and UK—each outperformed by more than 2,000 bps.

Sources: Cambridge Associates LLC, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties. Notes: Countries are sorted by average manager weight. A country name in red indicates that the country underperformed the MSCI Emerging Markets Index in 2021, while green country names indicate outperformance. Countries are sorted by year-end 2020 MSCI Emerging Markets Index weights for the left chart and total number of managers invested in each respective country on the right chart. Includes data for 98 managers that provided geographic allocation as of year-end 2020. Index weights represent year-end geographic allocations of the MSCI Emerging Markets Index. The n provided for each country represents the total number of products exposed to a given country as of year-end 2020, 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. 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.

# The environment was very favorable for active managers in 2021

PERCENTAGE OF MANAGERS OUTPERFORMING FEE-ADJUSTED MSCI EMERGING MARKETS INDEX

2001-21



Many factors contribute to active manager out-performance, but the presence of three key factors can create a more favorable environment for active management in general.

All three factors were observed in 2021, marking the first time since 2015 all these tailwinds for manager outperformance were present.



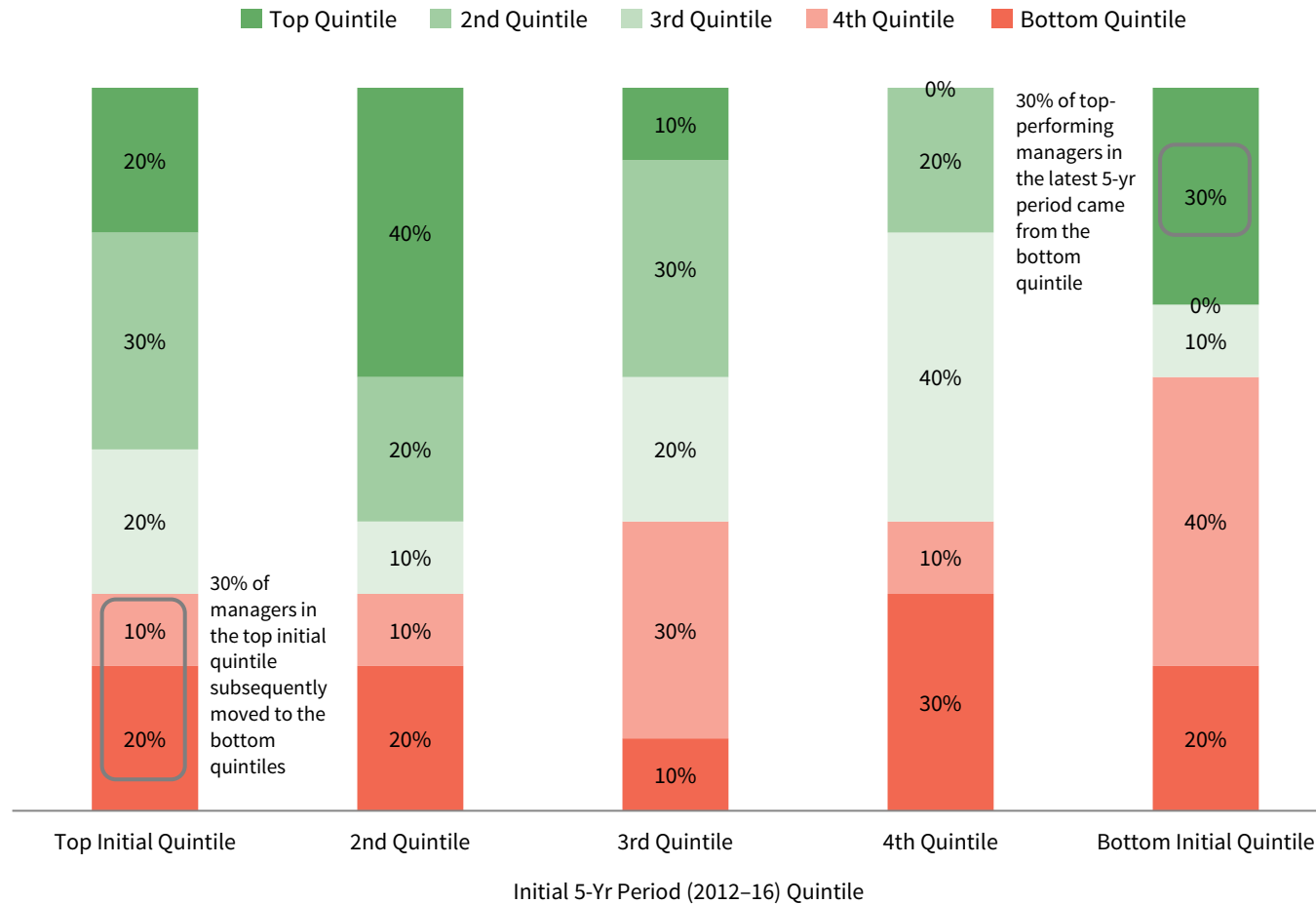
Sources: BofA Merrill Lynch, Cambridge Associates LLC, Federal Reserve, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties. Notes: Factors are represented by: MSCI Emerging Markets Index ("EM Index"), MSCI EM Small-Cap Index ("EM Small Caps"), MSCI Emerging Markets Index ("Emerging Markets Stocks"), MSCI Frontier Markets Index ("Frontier Markets Stocks"), BofA Merrill Lynch 91-Day Treasury Bills ("Cash"), and MSCI Emerging Markets Index ("EM Index"). Data for the MSCI Frontier Markets Index begin in 2003; this factor is only represented for 2003 to 2017. 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 90 bps to the MSCI Emerging Markets 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.

## Managers often move between top and bottom quintiles

### ANALYSIS OF EMERGING MARKETS EQUITY MANAGER RETURNS BY QUINTILE OVER FIVE-YEAR PERIODS

2012–21 • n = 50

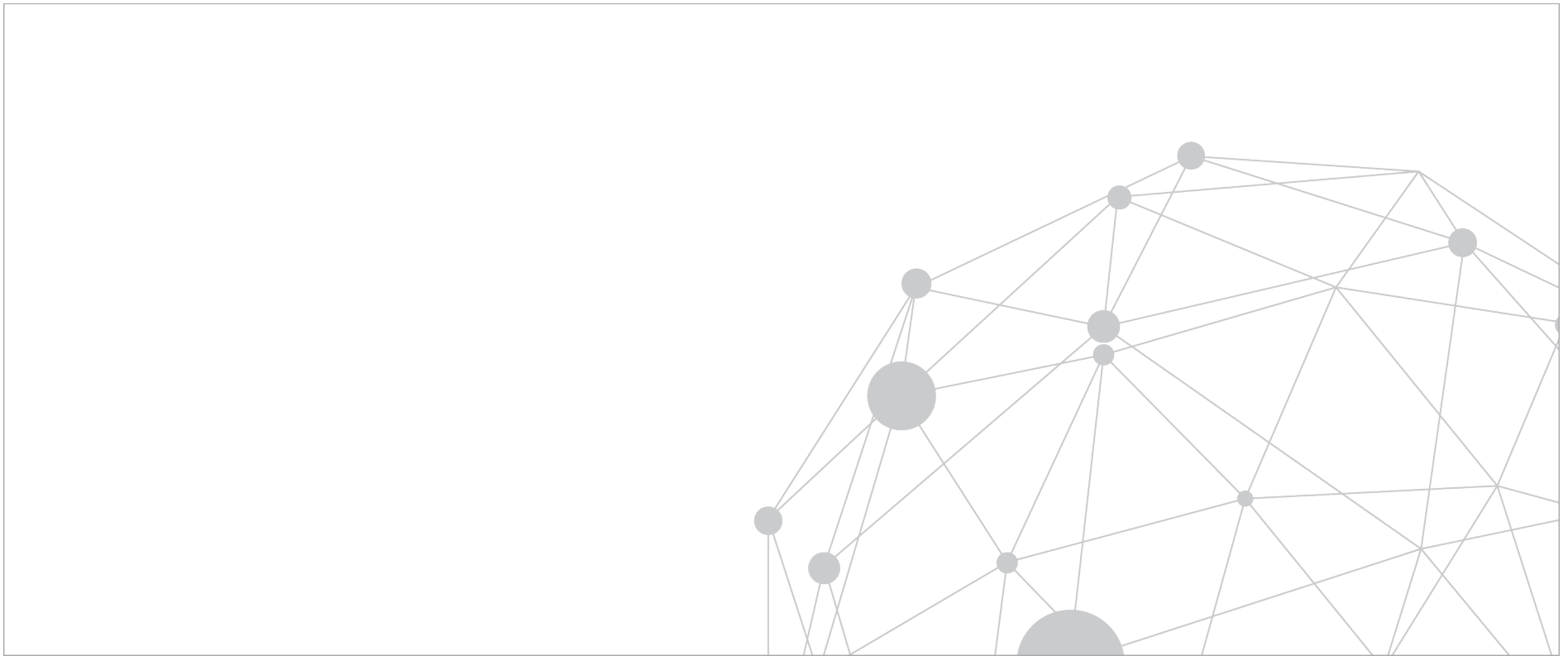
#### Percent of Managers in Subsequent 5-Yr Period (2017–21) Quintile



Past performance is not a guarantee of future results—30% of top-performing managers in the initial five-year period fell to the bottom quintiles in the subsequent five-year period; similarly, 30% of bottom-performing managers in the initial five-year period were in the top quintile in the most recent five-year period.



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



## Small company outperformance is typically a consistent tailwind for active managers

In 2021, small caps outperformed large-cap equivalents by more than 2,000 bps for the first time since 2009, and the median manager bested the benchmark MSCI Emerging Markets Index

### ASSESSING THE IMPACT OF CAPITALIZATION BIAS IN ACTIVE MANAGER PORTFOLIOS

2001–21

Active Managers Have Failed to Top the MSCI EM Index 75% of the Time When the Index Has Beaten the MSCI EM Small Cap Index ...

Year	Total Return (%)				MSCI EM Minus MSCI EM SC (ppts)	Mgr Value Added vs MSCI EM (ppts)
	MSCI EM	MSCI EM SC	Median EM Equity Manager	<i>n</i>		
2016	11.6	2.6	10.2	155	9.0	-1.4
2011	-18.2	-27.0	-18.5	98	8.8	-0.4
2019	18.9	11.9	20.4	156	7.0	1.5
2008	-53.2	-58.1	-53.9	80	4.9	-0.7
2018	-14.2	-18.3	-15.3	155	4.1	-1.1
2005	34.5	31.0	36.1	61	3.6	1.5
2017	37.8	34.2	37.4	154	3.5	-0.4
2004	26.0	24.7	26.0	60	1.3	0.0
<b>Mean</b>	<b>5.4</b>	<b>0.1</b>	<b>5.3</b>		<b>5.3</b>	<b>-0.1</b>

... and Outperformed the MSCI EM Index 77% of the Time When the Index Lagged the MSCI EM Small Cap Index

Year	Total Return (%)				MSCI EM Minus MSCI EM SC (ppts)	Mgr Value Added vs MSCI EM (ppts)
	MSCI EM	MSCI EM SC	Median EM Equity Manager	<i>n</i>		
2006	32.6	33.1	32.8	67	-0.5	0.2
2020	18.7	19.7	18.1	144	-1.0	-0.6
2007	39.8	42.3	39.5	73	-2.5	-0.2
2001	-2.4	0.4	-1.5	55	-2.8	0.8
2014	-1.8	1.3	-0.4	141	-3.2	1.4
2013	-2.3	1.3	0.1	134	-3.6	2.3
2003	56.3	60.2	58.4	56	-3.9	2.1
2002	-6.0	-2.1	-3.5	54	-3.9	2.5
2012	18.6	22.6	20.6	110	-4.0	2.0
2015	-14.6	-6.6	-13.0	147	-8.0	1.6
2010	19.2	27.5	20.5	91	-8.3	1.3
<b>2021</b>	<b>-2.2</b>	<b>19.3</b>	<b>-0.3</b>	<b>98</b>	<b>-21.5</b>	<b>1.9</b>
2009	79.0	114.3	78.8	86	-35.3	-0.2
<b>Mean</b>	<b>18.1</b>	<b>25.6</b>	<b>19.2</b>		<b>-7.6</b>	<b>1.2</b>

## Off-benchmark holdings can benefit managers

The median manager has consistently outperformed when frontier equities outperform emerging markets. In 2021, frontier outperformed by more than 20 ppts, and the median active managers topped the MSCI Emerging Markets Index

### ASSESSING THE IMPACT OF FRONTIER MARKETS EQUITIES ON ACTIVE MANAGER PERFORMANCE

2003-21

#### Active Managers Have Failed to Top the MSCI EM Index 67% of the Time When the Index Has Topped the MSCI Frontier Index ...

Year	Total Return (%)				MSCI EM Minus MSCI FM (ppts)	Mgr Value Added vs MSCI EM (ppts)
	MSCI EM	MSCI Frontier	Median EM Equity Manager	<i>n</i>		
2009	79.0	11.7	78.8	86	67.3	-0.2
2006	32.6	-8.9	32.8	50	41.4	0.2
2020	18.7	1.7	18.1	144	17.0	-0.6
2003	56.3	43.6	58.4	56	12.7	2.1
2012	18.6	9.2	20.6	110	9.4	2.0
2016	11.6	3.2	10.2	155	8.4	-1.4
2017	37.8	32.3	37.4	154	5.4	-0.4
2004	26.0	22.7	26.0	60	3.3	0.0
2018	-14.2	-16.2	-15.3	155	2.0	-1.1
2008	-53.2	-54.1	-53.9	80	0.9	-0.7
2019	18.9	18.3	20.4	156	0.5	1.5
2011	-18.2	-18.4	-18.5	98	0.2	-0.4
<b>Mean</b>	<b>17.8</b>	<b>3.8</b>	<b>17.9</b>		<b>14.1</b>	<b>0.1</b>

#### ... and Outperformed the MSCI EM Index 86% of the Time When the Index Lagged the MSCI Frontier Index

Year	Total Return (%)				MSCI EM Minus MSCI FM (ppts)	Mgr Value Added vs MSCI EM (ppts)
	MSCI EM	MSCI Frontier	Median EM Equity Manager	<i>n</i>		
2015	-14.6	-14.1	-13.0	147	-0.5	1.6
2007	39.8	42.1	39.5	73	-2.3	-0.2
2010	19.2	24.2	20.5	91	-5.0	1.3
2014	-1.8	7.2	-0.4	141	-9.0	1.4
<b>2021</b>	<b>-2.2</b>	<b>20.1</b>	<b>-0.3</b>	<b>98</b>	<b>-22.3</b>	<b>1.9</b>
2013	-2.3	26.3	0.1	134	-28.6	2.3
2005	34.5	72.7	36.1	61	-38.2	1.5
<b>Mean</b>	<b>10.4</b>	<b>25.5</b>	<b>11.8</b>		<b>-15.1</b>	<b>1.4</b>

## Cash outperformance helps active managers top their benchmark...

...and in 2021 the 91-Day T-Bill outperformed the MSCI Emerging Market Index, creating a tailwind for managers with excess cash to outperform the index

### ASSESSING THE IMPACT OF CASH DRAG ON ACTIVE MANAGER PERFORMANCE

2001–21

Active Managers Have Failed to Top the MSCI Emerging Markets Index 50% of the Time When the Index Has Beaten the 91-Day T-Bill ...

Year	Total Return (%)				MSCI EM Minus T-Bill (ppts)	Mgr Value Added vs MSCI EM (ppts)
	MSCI EM	91-Day T-Bill	Median EM Equity Manager	<i>n</i>		
2009	79.0	0.2	78.7	92	78.8	-0.4
2003	56.3	1.1	58.4	56	55.1	2.1
2017	37.8	0.9	36.9	167	36.9	-0.8
2007	39.8	5.0	39.5	76	34.8	-0.3
2005	34.5	3.1	36.1	62	31.5	1.5
2006	32.6	4.8	33.1	69	27.7	0.5
2004	26.0	1.3	26.0	60	24.6	0.0
2010	19.2	0.1	21.7	97	19.1	2.5
2012	18.6	0.1	20.5	121	18.5	1.9
2020	18.7	0.7	18.0	156	18.0	-0.7
2019	18.9	2.3	20.1	169	16.6	1.2
2016	11.6	0.3	9.9	167	11.3	-1.7
<b>Mean</b>	<b>32.7</b>	<b>1.7</b>	<b>33.2</b>		<b>31.1</b>	<b>0.5</b>

... And Outperformed the MSCI Emerging Markets Index 67% of the Time When the Index Has Lagged the 91-Day T-Bill

Year	Total Return (%)				MSCI EM Minus T-Bill (ppts)	Mgr Value Added vs MSCI EM (ppts)
	MSCI EM	91-Day T-Bill	Median EM Equity Manager	<i>n</i>		
2014	-1.8	0.0	-0.3	155	-1.9	1.5
<b>2021</b>	<b>-2.2</b>	<b>0.0</b>	<b>0.3</b>	<b>104</b>	<b>-2.3</b>	<b>2.5</b>
2013	-2.3	0.1	0.6	148	-2.3	2.8
2001	-2.4	4.4	-1.6	55	-6.8	0.8
2002	-6.0	1.8	-3.5	54	-7.8	2.5
2015	-14.6	0.1	-12.7	161	-14.7	1.9
2018	-14.2	1.9	-15.4	168	-16.1	-1.1
2011	-18.2	0.1	-18.7	107	-18.3	-0.5
2008	-53.2	2.1	-54.0	85	-55.2	-0.8
<b>Mean</b>	<b>-12.8</b>	<b>1.2</b>	<b>-11.7</b>		<b>-13.9</b>	<b>1.1</b>



Contributors to this report include David Kautter, Sean Duffin, Davan Bazil, and Kristin Roesch.

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