

Q3 2021

# Index Insights

## US traditional weighted benchmark performance

- Large-cap outperformed small-cap for consecutive quarters
- Equal-weight lagged market-cap in Q3 but had stronger returns YTD
- Growth outperformed value for second consecutive quarter
- S&P 600 continued to outperform Russell 2000 in recent quarters, aided by a quality screen

Benchmark	Q3	YTD	1-yr	3-yr	5-yr	10-yr	3-yr Sharpe Ratio	10-yr Sharpe Ratio	3-yr Vol	10-yr Vol
S&P 500	0.58	15.92	30.00	15.99	16.90	16.63	0.83	1.19	18.81	13.26
S&P 400	-1.76	15.52	43.68	11.08	12.97	14.72	0.52	0.89	23.90	16.25
S&P 600	-2.84	20.05	57.64	9.44	13.57	15.69	0.44	0.87	25.93	18.14
Russell 1000	0.21	15.19	30.96	16.43	17.11	16.76	0.83	1.17	19.38	13.55
Russell 1000 Growth	1.16	14.30	27.32	22.00	22.84	19.68	1.04	1.30	20.19	14.19
Russell 1000 Value	-0.78	16.14	35.01	10.07	10.94	13.51	0.53	0.94	20.19	13.99
Russell 2000	-4.36	12.41	47.68	10.54	13.45	14.63	0.48	0.81	25.69	18.25
Russell 3000	-0.10	14.99	31.88	16.00	16.85	16.60	0.80	1.15	19.68	13.75
Russell 3000 Growth	0.69	13.49	27.57	21.27	22.30	19.40	1.00	1.27	20.38	14.33
Russell 3000 Value	-0.93	16.58	36.64	9.94	10.94	13.48	0.51	0.92	20.54	14.21
DJ US Total Market	-0.12	15.13	32.13	15.95	16.82	16.56	0.80	1.14	19.71	13.77
MSCI USA	0.41	15.34	30.51	16.74	17.31	16.82	0.85	1.18	19.18	13.45
S&P 500 Equal Weight	-0.22	18.92	40.87	14.29	14.61	16.00	0.67	1.03	21.87	14.94

## Global traditional weighted benchmark performance

- Global markets continued to lag the US
- Growth outperformed value
- Frontier was strong for the second straight quarter
- Global small-cap outperformed large-cap

Benchmark	Q3	YTD	1-yr	3-yr	5-yr	10-yr	3-yr Sharpe Ratio	10-yr Sharpe Ratio	3-yr Vol	10-yr Vol
MSCI ACWI IMI	-1.11	11.42	28.92	12.38	13.06	11.96	0.66	0.85	18.71	13.68
MSCI ACWI ex USA IMI	-2.56	6.77	25.16	8.34	9.13	7.74	0.47	0.55	18.12	14.47
MSCI ACWI	-1.05	11.12	27.44	12.58	13.20	11.90	0.68	0.86	18.20	13.47
MSCI ACWI ex USA	-2.99	5.90	23.92	8.03	8.94	7.48	0.46	0.53	17.73	14.38
MSCI World	-0.01	13.04	28.82	13.14	13.74	12.68	0.70	0.91	18.46	13.43
MSCI World ex USA	-0.66	9.19	26.50	7.87	8.88	7.88	0.45	0.56	18.07	14.32
MSCI World ex USA Growth	-0.25	6.99	20.50	11.93	11.21	9.64	0.71	0.71	16.38	13.37
MSCI World ex USA Value	-1.07	11.15	32.60	3.45	6.25	5.95	0.22	0.40	20.86	16.01
MSCI World ex USA Small	0.72	10.71	30.14	9.50	10.33	10.03	0.49	0.66	21.03	15.48
MSCI EAFE	-0.45	8.35	25.73	7.62	8.81	8.10	0.44	0.57	17.78	14.36
MSCI Emerging Markets	-8.09	-1.25	18.20	8.58	9.23	6.09	0.47	0.40	19.41	16.96
MSCI Emerging Markets Small Cap	-2.16	17.20	43.24	13.11	9.75	7.21	0.60	0.45	23.26	17.69
MSCI Frontier Markets	3.37	18.89	32.20	10.83	9.52	7.06	0.63	0.53	17.12	13.46

Source: Morningstar Direct, Bloomberg, LGIM America.

All "Traditional Weighted" benchmarks above have at least 10 years of actual performance that can be verified by accessing the provider's website for further information. LGIMA has obtained this information from the index provider and recommends that all information be verified on the provider's website. Index provider information has not been independently verified by LGIMA for its accuracy or completeness, therefore the information obtained from third party sources cannot be guaranteed. Please refer to the disclosures at the end of this presentation for more information.

## US alternative weighted benchmark performance

- Quality outperformed for second consecutive quarter
- Value was the chief laggard in Q3 but was the top-performing factor YTD
- Momentum composite dispersion continued to be high

	Benchmark	Q3	YTD	1-yr	3-yr	5-yr	10-yr	3-yr Sharpe Ratio	10-yr Sharpe Ratio	3-yr Vol	10-yr Vol
Mkt Cap	S&P 500	0.58	15.92	30.00	15.99	16.90	16.63	0.83	1.19	18.81	13.26
	Composite Average Relative to Market Cap										
Relative to Mkt Cap	Value	-1.73	3.91	12.36	-6.53	-5.09	-2.39	0.57	0.79	22.76	15.64
	Low Vol	-0.38	-4.08	-8.34	-4.08	-4.29	-2.30	0.85	1.10	16.11	11.52
	Momentum	-0.62	-4.75	-7.10	-2.88	-1.08	-0.08	0.80	1.04	19.46	13.61
	Quality	1.63	-1.66	-4.22	-0.07	-0.06	-0.05	1.01	1.13	18.07	13.21
	Size	0.03	-4.73	1.70	-4.50	-4.20	-1.75	0.69	0.84	23.20	15.66
	Composite Min-Max Spread										
Min-Max Spread	Value	4.65	15.93	25.66	7.82	5.87	2.73	0.38	0.26	9.99	6.23
	Low Vol	3.62	6.87	12.50	7.10	6.33	3.04	0.35	0.27	3.11	1.69
	Momentum	9.78	7.00	15.82	7.47	7.82	4.29	0.45	0.28	5.35	0.56
	Quality	2.91	1.24	3.40	6.31	5.28	2.36	0.34	0.18	1.20	0.37
	Size	3.46	3.46	23.72	3.60	3.38	2.06	0.11	0.05	4.17	2.36
	Composite Min-Max Spread										

## Global developed ex USA alternative weighted benchmark performance

- Quality outperformed in international markets, similar to the US
- Value was the weakest factor for the quarter, but strongest YTD
- Momentum had the tightest dispersion, in contrast to US market

	Benchmark	Q3	YTD	1-yr	3-yr	5-yr	10-yr	3-yr Sharpe Ratio	10-yr Sharpe Ratio	3-yr Vol	10-yr Vol
Mkt Cap	MSCI World ex USA	-0.66	9.19	26.50	7.87	8.88	7.88	0.45	0.56	18.07	14.32
	Composite Average Relative to Market Cap										
Relative to Mkt Cap	Value	-0.57	2.66	8.07	-3.00	-1.36	-0.69	0.29	0.33	20.96	16.55
	Low Vol	1.12	-4.45	-10.92	-3.27	-2.30	-0.07	0.37	0.54	14.90	12.26
	Momentum	-0.04	-4.18	-7.93	0.69	0.55	1.57	0.55	0.53	16.27	13.72
	Quality	1.35	-4.84	-8.26	0.40	0.64	0.89	0.67	0.56	16.42	13.90
	Size	1.97	-3.15	-3.05	-2.01	-0.49	0.64	0.37	0.46	19.42	15.06
	Composite Min-Max Spread										
Min-Max Spread	Value	4.47	6.72	9.63	2.52	2.44	1.67	0.11	0.09	0.92	1.07
	Low Vol	4.73	5.49	10.62	5.29	3.21	1.23	0.32	0.17	3.90	2.94
	Momentum	2.39	4.08	6.77	5.30	3.51	0.85	0.33	0.09	1.42	1.27
	Quality	2.93	1.94	4.25	6.60	2.75	0.84	0.42	0.07	2.02	0.35
	Size	3.60	4.41	8.42	2.14	2.33	1.09	0.10	0.07	0.99	1.34
	Composite Min-Max Spread										

Source: Morningstar Direct, Bloomberg, Scientific Beta, LGIM America.

Composite data is aggregated by LGIM America and hypothetical. Hypothetical performance results have many inherent limitations and no representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program. Please refer to the disclosures at the end of this presentation for more information.

## Emerging markets alternative weighted benchmark performance

- Factor performance was much stronger in emerging markets in Q3
- Low vol was the top-performing factor
- Momentum was only factor to lag market-cap
- Similar to the US, momentum had the widest Q3 composite spread

	Benchmark	Q3	YTD	1-yr	3-yr	5-yr	10-yr	3-yr Sharpe Ratio	10-yr Sharpe Ratio	3-yr Vol	10-yr Vol
Mkt Cap	MSCI EM	-8.09	-1.25	18.20	8.58	9.23	6.09	0.47	0.40	19.41	16.96
	Composite Average Relative to Market Cap										
Relative to Mkt Cap	Value	8.39	3.74	4.24	-5.14	-1.49	-1.78	0.38	0.18	19.54	18.49
	Low Vol	9.02	4.89	0.93	-5.06	-3.40	-1.02	0.39	0.29	16.03	14.81
	Momentum	-0.28	-4.06	0.07	1.84	1.03	1.37	0.62	0.39	19.58	16.98
	Quality	4.86	-6.16	-4.52	-2.26	-1.53	-1.05	0.59	0.34	17.98	15.84
	Size	5.99	16.82	17.73	2.15	-0.81	0.73	0.51	0.29	21.00	17.98
	Composite Min-Max Spread										
Min-Max Spread	Value	4.62	3.11	3.76	2.96	2.62	0.75	0.14	0.04	0.59	2.43
	Low Vol	6.51	6.75	6.52	5.89	5.31	2.50	0.33	0.15	3.07	2.63
	Momentum	9.94	4.36	20.14	14.91	11.68	5.06	0.56	0.25	5.27	2.76
	Quality	1.32	3.78	4.26	7.14	5.56	1.79	0.35	0.10	0.56	1.34
	Size	8.37	13.15	30.56	8.44	5.74	2.78	0.35	0.14	5.09	2.54
	Composite Min-Max Spread										

## Environmental and socially responsible weighted benchmark performance

- ESG and climate funds broadly outperformed market-cap in Q3
- Continued strength across all timeframes

	Benchmark	Q3	YTD	1-yr	3-yr	5-yr	10-yr	3-yr Sharpe Ratio	10-yr Sharpe Ratio	3-yr Vol	10-yr Vol
Mkt Cap	MSCI World	-0.01	13.04	28.82	13.14	13.74	12.68	0.70	0.91	18.46	13.43
	Russell 1000	0.21	15.19	30.96	16.43	17.11	16.76	0.83	1.17	19.38	13.55
ESG	FTSE Developed	-0.33	12.48	28.56	12.91	13.62	12.58	0.69	0.91	18.46	13.44
	MSCI World ESG	0.59	14.22	29.01	14.04	13.77	12.62	0.77	0.93	17.82	13.11
	MSCI Wld Low Carbon Ldrs	0.22	13.22	29.61	13.38	13.97	13.01	0.71	0.93	18.57	13.52
	MSCI Wld Low Carbon Trgt	-0.10	12.76	28.61	13.50	13.78	12.88	0.72	0.92	18.53	13.47
	MSCI World SRI	0.76	13.35	27.28	15.65	15.37	13.15	0.86	0.98	17.35	12.92
	Russell 1000 Climate	0.60	14.90	31.10	17.50	17.70	--	--	--	20.40	--
SRI	FTSE4Good US	0.49	16.43	30.95	18.43	19.04	18.26	0.93	1.27	19.02	13.50
	FTSE Custom Global Developed Component Climate	-0.09	12.09	28.90	13.77	13.97	--	0.73	--	18.50	--

Source: Morningstar Direct, Bloomberg, Scientific Beta, FTSE-Russell, LGIM America.

Composite data is aggregated by LGIM America and hypothetical. Hypothetical performance results have many inherent limitations and no representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program. Please refer to the disclosures at the end of this presentation for more information.

## Fixed income benchmark performance

- US TIPS were the top performer with inflation rising
- US outperformed global markets
- High yield outperformed investment grade in Q3

	Benchmark	Q3	YTD	1-yr	3-yr	5-yr	10-yr	3-yr Sharpe Ratio	10-yr Sharpe Ratio	3-yr Vol	10-yr Vol
Agg	Barclays Global Agg	-0.88	-4.06	-0.91	4.24	1.99	1.86	0.71	0.30	4.60	4.41
	Barclays US Agg	0.05	-1.55	-0.90	5.36	2.94	3.01	1.23	0.81	3.54	2.99
Credit	iBoxx US Investment Grade	-0.19	-1.78	1.66	8.44	4.99	5.46	0.94	0.82	7.87	5.96
	iBoxx US High Yield	0.65	3.72	9.80	6.02	5.73	6.65	0.59	0.89	8.73	6.78
Rates	Barclays US TIPS	1.75	3.51	5.19	7.45	4.34	3.12	1.53	0.60	4.07	4.25
	Barclays US Treasury	0.09	-2.50	-3.30	4.89	2.23	2.21	0.87	0.46	4.50	3.57
	Barclays US Treasury: Intermediate	-0.01	-1.15	-1.38	4.00	1.98	1.81	1.19	0.55	2.56	2.21
	Barclays US Treasury: Long	0.47	-7.49	-10.27	9.22	3.31	4.39	0.65	0.39	13.29	11.12
EM	JPM Emerging Market Global Core	-0.82	-1.84	4.16	5.85	3.84	5.80	0.47	0.65	11.36	8.35

## REITs, infrastructure and commodity benchmark performance

- Commodities continued strong performance in Q3 with inflation rising
- US REITs continued to outperform developed ex US REITs

	Benchmark	Q3	YTD	1-yr	3-yr	5-yr	10-yr	3-yr Sharpe Ratio	10-yr Sharpe Ratio	3-yr Vol	10-yr Vol
Commod	BBG Commodity	6.59	29.13	42.29	6.86	4.54	-2.66	0.44	--	15.38	13.29
	S&P GSCI	5.22	38.27	58.30	-1.49	3.64	-4.83	0.07	--	29.03	21.50
REITs	FTSE EPRA Nareit United States	0.70	22.83	38.82	9.08	5.89	10.74	0.47	0.66	21.17	16.62
	FTSE EPRA Nareit Dv ex US	-2.71	6.06	20.79	4.22	4.30	7.08	0.26	0.48	19.54	15.52
	FTSE EPRA Nareit Global	-1.61	11.96	26.08	5.47	4.39	7.95	0.32	0.55	19.67	15.01
Infrastructure	FTSE Global Core Infrastructure	-1.38	6.49	13.97	8.12	7.94	9.34	0.54	0.81	14.58	11.01
	MSCI ACWI Infrastructure	-1.42	1.55	11.67	5.31	4.06	5.57	0.37	0.49	13.92	11.20
	Magellan Global Core Infrastructure	0.00	5.86	13.01	9.27	7.17	--	0.61	--	14.57	--

Source: Morningstar Direct, FTSE, Bloomberg, and LGIM America.

## Multi-factor benchmark performance

- Developed markets multi-factor lagged market-cap
- Emerging market multi-factor was strong in Q3
- Wide min/max spread was visible in emerging markets multi-factor

	Benchmark	Q3	YTD	1-yr	3-yr	5-yr	10-yr	3-yr Sharpe Ratio	10-yr Sharpe Ratio	3-yr Vol	10-yr Vol
Mid Cap Global	MSCI ACWI	-1.05	11.12	27.44	12.58	13.20	11.90	0.68	0.86	18.20	13.47
	MSCI ACWI Div. Multi-Factor	-2.87	10.89	27.01	8.92	11.37	12.01	0.50	0.86	18.55	13.54
	SciBeta Global MBMS 4F EW	-1.31	10.93	26.73	8.38	9.85	10.81	0.48	0.83	18.06	12.69
	SciBeta Global HFI 6F EW	-1.44	11.23	26.26	8.33	9.70	11.30	0.48	0.89	17.58	12.20
	FTSE AW Comprehensive Factor	-0.02	12.55	28.16	9.34			0.53		17.97	
	RAFI Multi-Factor Global	-0.99	12.75	30.88	9.43			0.53		18.34	
	Average	-1.33	11.67	27.81	8.88	10.31	11.37	0.50	0.86	18.10	12.81
	Min/Max Spread	2.85	1.86	4.62	1.10	1.68	1.19	0.05	0.06	0.97	1.34
Mid Cap USA	S&P 500	0.58	15.92	30.00	15.99	16.90	16.63	0.83	1.19	18.81	13.26
	MSCI USA Div. Multi-Factor	-1.31	12.78	28.52	10.29	13.19	15.25	0.55	1.06	19.41	13.72
	SciBeta US MBMS 4F EW	-0.91	13.77	28.77	11.30	12.79	14.58	0.60	1.08	19.09	12.88
	SciBeta US HFI 6F EW	-1.02	13.74	28.08	11.49	12.79	15.05	0.63	1.14	18.44	12.47
	Russell 1000 Cmprhnsve Factor	-0.08	15.11	31.82	11.39	12.87	15.52	0.58	1.08	20.55	13.79
	RAFI Multi-Factor U.S. TR	-0.76	16.56	33.27	12.03	13.65	15.34	0.63	1.10	19.36	13.26
	Average	-0.82	14.39	30.09	11.30	13.06	15.15	0.60	1.09	19.37	13.22
	Min/Max Spread	1.23	3.78	5.20	1.74	0.87	0.94	0.08	0.08	2.10	1.33
Mid Cap Dev xUSA	MSCI World ex USA	-0.66	9.19	26.50	7.87	8.88	7.88	0.45	0.56	18.07	14.32
	MSCI World ex USA DMF	-2.72	9.29	23.47	4.51	7.40	8.86	0.27	0.63	18.55	14.15
	SciBeta Dev xUS MBMS 4F EW	-0.76	8.60	25.09	6.07	7.66	8.58	0.36	0.63	17.88	13.48
	SciBeta Dev xUS HFI 6F EW	-0.87	9.51	25.11	5.92	7.85	9.26	0.35	0.69	17.58	13.18
	FTSE Dev xUS Cmprhnsve Factor	-0.83	7.70	21.19	7.06	8.24	9.25	0.42	0.71	17.07	12.80
	RAFI Multi-Factor Developed ex-U.S	-0.14	9.76	26.95	7.05			0.42		17.52	
	Average	-1.07	8.97	24.36	6.12	7.79	8.99	0.37	0.67	17.72	13.40
	Min/Max Spread	2.59	2.06	5.75	2.55	0.85	0.68	0.15	0.08	1.47	1.35
Mid Cap Emerging	MSCI Emerging Markets	-8.09	-1.25	18.20	8.58	9.23	6.09	0.47	0.40	19.41	16.96
	MSCI EM Div. Multi-Factor	-3.84	6.80	22.45	9.52	9.34	7.21	0.51	0.46	19.42	17.03
	SciBeta EM MBMS 4F EW	-4.12	5.37	24.50	4.14	5.34	4.93	0.26	0.36	17.88	14.98
	SciBeta EM HFI 6F EW	-4.34	6.05	24.32	3.26	4.90	5.44	0.21	0.40	17.63	14.26
	FTSE EM Comprehensive Factor	1.80	16.72	37.66	9.03	7.64	6.84	0.49	0.46	19.18	15.93
	RAFI Multi-Factor Emerging Markets	-3.46	11.53	37.87	10.14			0.52		20.43	
	Average	-2.79	9.29	29.36	7.22	6.81	6.10	0.40	0.42	18.91	15.55
	Min/Max Spread	6.14	11.35	15.42	6.87	4.44	2.28	0.31	0.10	2.81	2.77

Sources: Morningstar Direct, Bloomberg, Scientific Beta, LGIM America.

Sharpe Ratios intentionally left out when negative, or where data unavailable

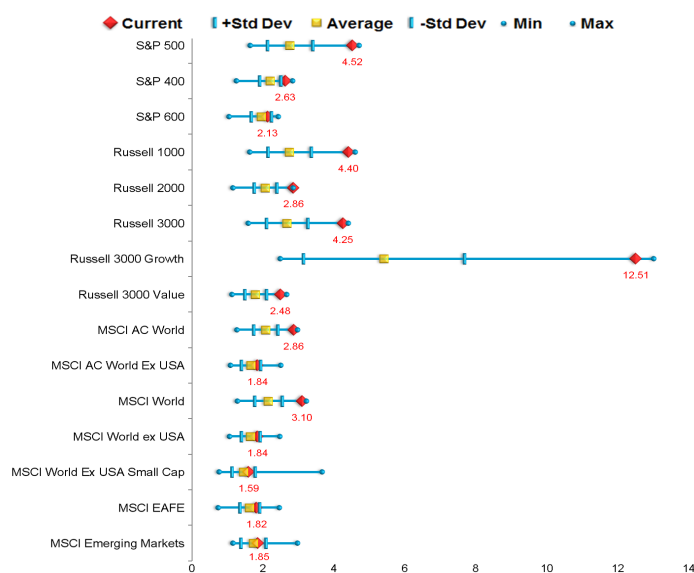
SciBeta MBMS 4F EW denotes Multi-Beta Multi-Strategy Four-Factor Equal Weight and HFI 6F EW denotes High-Factor-Intensity Diversified Multi-Beta Multi-Strategy 6-Factor 4-Strategy Equal Weight.

The FTSE AW Comp performance is hypothetical prior to November 3, 2016. The MSCI ACWI Diversified Multiple-Factor Index performance is hypothetical prior to Feb 17, 2015. SciBeta US MBMS 4F EW, SciBeta Dev xUS MBMS 4F EW, and SciBeta EM MBMS 4F EW performance is hypothetical prior to December 20, 2013. SciBeta US HFI 6F EW, SciBeta Dev xUS HFI 6F EW, and SciBeta EM HFI 6F EW performance is hypothetical prior to March 16, 2018. Hypothetical performance results have many inherent limitations and no representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program. Please refer to the disclosures at the end of this presentation for more information.

### US and global market cap weighted valuations

- US large-cap continued near historical highs
- PBs across the board were all above timeframe averages

### Price-to-book: 15-year relative value



Source: Bloomberg, MSCI, LGIM America as of end of Q3 2021.

### Currency summary – MSCI global indexes

- US Dollar strengthened, continuing strong performance YTD

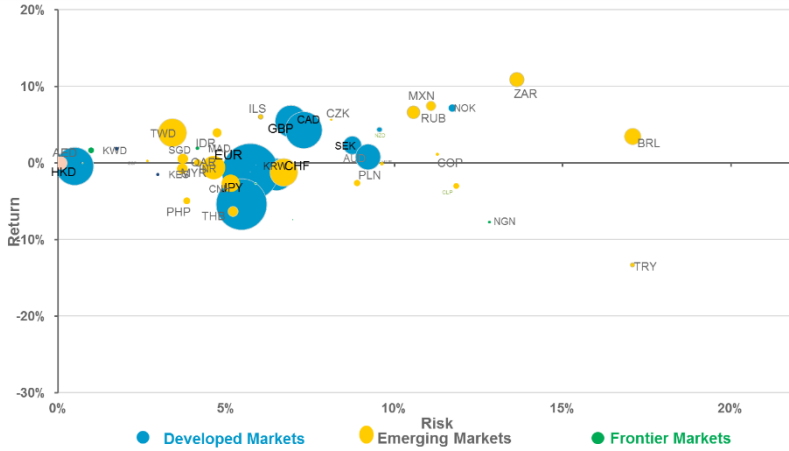
Index	USD Return %			Local Return %			Currency Impact %		
	3M	YTD	1-yr	3M	YTD	1-yr	3M	YTD	1-yr
MSCI ACWI	-1.05%	11.12%	27.44%	-0.36%	12.96%	27.45%	-0.70%	-1.84%	-0.01%
MSCI ACWI ex US	-2.99%	5.90%	23.92%	-1.30%	10.09%	23.94%	-1.69%	-4.19%	-0.02%
MSCI USA	0.41%	15.34%	30.51%	0.41%	15.34%	30.51%	0.00%	0.00%	0.00%
MSCI World ex US	-0.66%	9.19%	26.50%	1.15%	14.48%	27.19%	-1.81%	-5.29%	-0.70%
MSCI EAFE	-0.45%	8.35%	25.73%	1.32%	14.23%	27.20%	-1.76%	-5.89%	-1.47%
MSCI Canada	-2.53%	17.54%	33.90%	-0.29%	16.88%	26.99%	-2.25%	0.66%	6.91%
MSCI EM	-8.09%	-1.25%	18.20%	-6.69%	0.73%	16.86%	-1.40%	-1.97%	1.34%
MSCI Frontier Markets	3.37%	18.89%	32.20%	4.23%	21.13%	33.13%	-0.86%	-2.24%	-0.93%

US Dollar Index	1.94%	4.77%	0.37%
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Sources: LGIM America, MSCI, Bloomberg as of end of Q3 2021.

### One-year currency risk/return

- In emerging markets, Turkish Lira was the main underperformer, while South African Rand was the best performer



Sources: MSCI, LGIMA as of end of Q3 2021.

### SciBeta Global Factor Indexes Periodic Table Investment Returns

#### Single Factor Indexes based on SciBeta’s diversified multi-strategy methodology

- Low vol was top performing factor in Q3 in a reversal of recent trends
- Momentum was worst performing factor in Q3, a reversion from Q2

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Q1	Q2	Q3
Low Vol	1.00	17.45	26.14	9.70	3.04	11.18	27.73	-6.12	26.60	16.25	9.53	8.18	-0.20
HFI 6F	-0.49	17.12	25.82	9.12	2.70	9.54	25.27	-7.65	25.82	13.42	7.72	7.96	-1.05
High Profitability	-3.26	16.70	25.16	8.16	2.13	7.86	23.97	-9.41	23.33	10.92	6.35	7.39	-1.44
Momentum	-5.01	16.59	24.34	7.38	2.11	6.30	22.93	-9.61	22.89	6.75	6.33	6.31	-1.44
Low Investment	-5.32	16.13	23.26	6.69	0.52	6.11	22.86	-10.35	22.82	5.94	4.78	6.12	-1.46
Size	-5.71	16.07	22.86	6.07	-0.34	5.89	22.69	-10.75	22.69	5.06	4.57	5.69	-1.68
MSCI ACWI	-7.35	15.99	22.80	5.53	-2.36	5.28	21.75	-12.09	22.30	4.99	4.50	5.35	-1.69
Value	-8.90	15.76	20.96	4.16	-3.38	1.17	21.50	-12.47	21.80	4.29	2.31	4.99	-1.81

Sources: LGIM America, Scientific Beta, Morningstar Direct. HFI 6F equals SciBeta Global High-Factor-Intensity Multi-Beta Multi-Strategy Six-Factor EW. Performance is hypothetical prior to December 20, 2013. SciBeta Global HFI MBMS 6F EW performance is hypothetical prior to March 16, 2018. Hypothetical performance results have many inherent limitations and no representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program.

## Global GICS Sector Index Returns (MSCI ACWI)

- Energy continued strong performance YTD
- Information Technology also maintained strong recent performance among sectors

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Q1	Q2	Q3
Health Care 9.59	Real Estate 31.45	Health Care 36.54	Health Care 18.73	Health Care 6.81	Energy 28.62	Info Tech 42.27	Utilities 2.23	Info Tech 47.52	Info Tech 46.13	Energy 18.03	Info Tech 10.61	Energy 3.11
Consumer Staples 8.50	Financials 29.44	Consumer Discretionary 36.49	Info Tech 15.73	Consumer Staples 5.69	Materials 24.16	Materials 30.19	Health Care 2.22	Consumer Discretionary 28.20	Consumer Discretionary 36.99	Financials 11.57	Energy 9.59	Financials 2.04
Comm Services 0.52	Consumer Discretionary 24.05	Industrials 30.06	Utilities 14.68	Consumer Discretionary 4.59	Financials 13.06	Industrials 25.90	Info Tech -5.47	Industrials 27.14	Comm Services 24.10	Industrials 7.60	Health Care 9.50	Info Tech 0.60
Energy -2.51	Health Care 18.58	Info Tech 27.06	Real Estate 13.51	Info Tech 3.65	Info Tech 12.71	Consumer Discretionary 25.66	Real Estate -6.98	Comm Services 25.12	Materials 21.47	Comm Services 6.69	Real Estate 8.53	Health Care 0.31
Utilities -3.67	Industrials 16.75	Comm Services 24.49	Consumer Staples 6.78	Real Estate 0.26	Industrials 12.55	Financials 24.75	Consumer Discretionary -7.97	Financials 24.07	Health Care 15.44	Materials 6.48	Comm Services 8.11	Utilities -0.02
Info Tech -4.10	Info Tech 15.79	Financials 22.66	Consumer Discretionary 3.93	Comm Services -1.40	Utilities 6.58	Health Care 20.74	Consumer Staples -9.89	Real Estate 24.02	Industrials 11.76	Real Estate 6.18	Financials 6.43	Real Estate -1.67
Consumer Discretionary -4.82	Consumer Staples 15.30	Consumer Staples 19.14	Financials 3.93	Industrials -2.61	Comm Services 5.85	Real Estate 18.51	Comm Services -10.10	Health Care 23.31	Consumer Staples 8.83	Consumer Discretionary 2.33	Materials 6.13	Consumer Staples -2.02
Real Estate -8.42	Materials 11.50	Energy 14.27	Industrials 0.71	Financials -5.11	Consumer Discretionary 3.36	Consumer Staples 18.46	Energy -12.63	Consumer Staples 22.39	Utilities 4.64	Info Tech 1.86	Consumer Discretionary 5.98	Industrials -2.07
Industrials -9.76	Comm Services 9.08	Utilities 11.60	Comm Services -1.10	Utilities -7.43	Real Estate 3.16	Utilities 14.84	Industrials -13.96	Utilities 22.08	Financials -3.15	Utilities 0.79	Consumer Staples 5.88	Comm Services -2.44
Financials -18.96	Utilities 3.36	Real Estate 1.71	Materials -7.08	Materials -15.78	Consumer Staples 2.13	Comm Services 8.61	Financials -15.16	Materials 20.72	Real Estate -5.67	Health Care 0.61	Industrials 4.79	Materials -4.85
Materials -21.18	Energy 3.08	Materials -0.27	Energy -12.92	Energy -21.61	Health Care -6.35	Energy 7.64	Materials -15.62	Energy 13.80	Energy -27.72	Consumer Staples -0.69	Utilities -0.21	Consumer Discretionary -5.11

Sources: LGIM America, Morningstar Direct.

## Index providers update

### FTSE Russell

FTSE Russell announced the results of their annual country classification review in September. While no country had its status changed, FTSE Russell did have an update on its watch lists.

Russia (currently Secondary Emerging) remains on the watch list for promotion to Advanced Emerging status. Likewise, Vietnam (currently Frontier) remains on the watch list for promotion to Secondary Emerging status. Two new countries were added to the watch list.

- Iceland (currently Frontier) is on the watch list for promotion to Secondary Emerging.
- Mongolia (currently unclassified) is on the watch list for promotion to Frontier.

The next update for country classification will be the interim review in March 2022.

FTSE also provided an update to the country classification process. A new evaluation criterion was added. This relates to tax and assessing the levels imposed and differences between taxes levied on international investors versus domestic.

### MSCI

In September, post a market consultation, MSCI announced that it would reclassify Pakistan from Emerging Markets to Frontier Markets. This reclassification will be implemented at the November 2021 review in one tranche. In making this announcement, MSCI cited that fact that Pakistan no longer met size and liquidity requirements.

During the quarter, MSCI announced a consultation on the treatment of Foreign Private Issuers (FPIs) in the MSCI USA Equity Universe. Announcing the results in September, MSCI stated that FPIs classified in the US would be eligible for inclusion in the MSCI USA Equity universe if they filed a 10-K/10-Q. Absent of these filings, market participants had raised concerns about transparency and completeness of information. This update will be effective at the November 2021 review.



## Scientific Beta

Each September, the Scientific Beta Country Committee announces the watch list of countries for reclassification in the equity universe. This year, it was announced that there are no countries on the watch list.

For further information, please contact [Greg Behar](#), Head of Index Strategy.

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Hypothetical performance results have many inherent limitations and no representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program.

One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical trading does not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risk in actual trading. For example, the ability to withstand losses or to adhere to a particular trading program in spite of trading losses are material points which can also adversely affect actual trading results. There are numerous other factors related to the markets in general or to the implementation of any specific trading program which cannot be fully accounted for in the preparation of hypothetical performance results and all of which can adversely affect actual trading results.

The use of hypothetical performance is subject to inherent limitations derived from the reliance on historical data and the benefit of hindsight. All trading strategies applied to the analysis were available throughout the performance period. However, the analysis includes certain assumptions where actual performance could be different from the hypothetical performance presented.

A review of the ERI Scientific Beta index methodology has been conducted by: a) comparing in and out of sample performance of the hypothetical back-tested information provided by Scientific Beta; b) testing the returns against the intended factor biases; c) conducting a comparison of similar multi-factor indexes to Scientific Beta's multi-factor index; and d) reviewing the reasonability of portfolio characteristics. The output of the indexes appears reasonable given the methodology and targeted portfolio risk biases and opinions expressed herein are as presented and may change based on market and other conditions. The material contained here is confidential and intended for the person to whom it has been delivered and may not be reproduced or distributed. The material is for informational purposes only and is not intended as a solicitation to buy or sell any securities or other financial instrument or to provide any investment advice or service. Legal & General Investment Management America, Inc. does not guarantee the timeliness, sequence, accuracy or completeness of information included. Past performance should not be taken as an indication or guarantee of future performance and no representation, express or implied, is made regarding future performance.