

Morningstar Quarterly Style Monitor: Q2 2023

Strong markets in the second quarter of 2023, with outperformance of U.S. growth stocks.

Morningstar Inc.

July 2023

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Executive Summary

This is the latest installment of the Morningstar Quarterly Style Monitor, which is designed to help investors stay on top of style trends. This publication tracks several members of the Morningstar Broad Style Index family, as well as the recently launched Global Style family, providing insights into their performance drivers and portfolio composition.

Key Takeaways

- ▶ Receding inflation along with artificial-intelligence-related enthusiasm during the quarter made for a more favorable market environment, with all style indexes closing in positive territory. Growth fared better than value in the United States.
- ▶ The margin of outperformance for U.S. large growth was higher than for other size segments, with the all-cap segment following closely behind.
- ▶ Stocks' movement across the value-growth spectrum accounted for many of the changes to the value and growth indexes across the market-cap ladder and across regions during the reconstitution.
- ▶ Globally, growth stocks' superior performance relative to value was driven largely by differences in intrasector stock selection.
- ▶ Changes in sector weights were more pronounced during this reconstitution. In the U.S., large-growth stocks' outperformance relative to value was driven primarily by both differences in sector allocations and security selection. Technology played a significant role in growth's overperformance.
- ▶ Valuation spreads between growth and value stocks, measured by P/E (trailing 12 months) have increased over the past quarter. They remained historically high as of June 2023 for most segments, except for U.S. mid-caps.
- ▶ The underperformance of the Morningstar Emerging Markets Growth Index was driven by both regional tilts and stock selection.
- ▶ Volatility has been pronounced in growth relative to value over the past year for U.S. large cap as well as developed ex-U.S. and emerging markets.
- ▶ Over the past year, market betas, across the board, have been more market-sensitive in growth indexes.
- ▶ There were increases in exposures to the technology sector along with noteworthy stock turnover across most broad style indexes.
- ▶ While comparatively higher valuation spreads have historically presaged subpar returns for the more expensive style, the converse seems to be true for large-mid stocks in ex-U.S. developed markets.

Performance Highlights

Returns

During the second quarter of 2023, large-cap U.S. stocks outpaced their mid- and small-cap counterparts and growth performed considerably better than value across all segments, as Exhibit 1 shows. Several macro dynamics were at play such as disinflation, receding fears of economic recession, and indications that policy rates are nearing peak. Additionally, AI enthusiasm has swept the markets, buoying the technology sector and driving the consequential returns of growth stocks.

On the other hand, in emerging and developed markets outside the U.S, value stocks slightly outpaced their growth counterparts, while overall returns were considerably lower than in the U.S. Such regions have been lagging in managing inflationary pressures. We are able to glean these insights from the Global Style family, which applies Morningstar Indexes' broad style methodology to our suite of Target Market Exposure indexes, which target large- and mid-cap stocks representing 85% of the investable market.

Exhibit 1 Returns (%)

US	1 Qr	1 Yr	5 Yr	10 Yr	Since Inception*
Morningstar US Market Extended	8.42	19.06	11.38	12.34	8.48
Morningstar US Market Broad Growth Extended	12.13	24.81	12.67	13.98	8.14
Morningstar US Market Broad Value Extended	4.54	12.84	9.44	10.35	8.36
Morningstar US Large Cap	9.76	20.95	12.69	13.11	8.15
Morningstar US Large Broad Growth	14.36	27.11	14.24	15.19	8.03
Morningstar US Large Broad Value	4.93	13.84	10.36	10.61	7.74
Morningstar US Mid Cap	4.66	14.20	9.25	11.07	9.36
Morningstar US Mid Cap Broad Growth	6.12	18.49	10.13	11.69	8.49
Morningstar US Mid Cap Broad Value	3.21	10.11	7.63	10.09	9.73
Morningstar US Small Cap Extended	5.34	13.88	4.73	8.45	8.40
Morningstar US Small Broad Growth Extended	6.56	18.31	4.68	8.84	7.03
Morningstar US Small Broad Value Extended	3.96	9.77	5.05	8.17	9.59
Global					
Morningstar Global Target Market Exposure	6.43	17.22	8.68	9.34	7.22
Morningstar Global Growth	8.57	20.99	9.38	10.31	7.93
Morningstar Global Value	4.29	13.50	7.41	8.01	6.43
Morningstar Developed Markets ex-US	3.54	18.17	5.30	6.00	3.95
Morningstar Developed Markets ex-US Growth	3.09	19.02	5.82	6.43	4.23
Morningstar Developed Markets ex-US Value	4.08	17.50	4.40	5.30	3.67
Morningstar Emerging Markets	1.34	3.07	2.35	3.97	2.85
Morningstar Emerging Markets Growth	-0.06	-0.52	0.68	3.54	2.82
Morningstar Emerging Markets Value	2.68	6.66	3.84	4.34	3.26

Source: Morningstar Direct. Data as of June 30, 2023.

*This includes performance backtested to the end of June 1997 for U.S. indexes and June 2008 for global indexes.

**Returns longer than one year annualized.

***All index performance data displayed are for Total Return USD variants.

Relative to its value counterpart, the Morningstar US Large Cap Broad Growth Index's outperformance in the second quarter of 2023 was predicated primarily on intrasector selection effects, particularly within the healthcare and technology sectors, which provided a significant boost. Being overweight the

technology and consumer cyclical sectors, along with an underweight to energy and utilities, were the most notable sector tilts that contributed to outperformance in large-cap growth stocks in the U.S. Within technology, popular names like Apple, Microsoft, Alphabet, and, of course, Nvidia, which experienced extraordinary growth due to its AI-gearred processors, were important contributors this quarter, while in consumer cyclical, Amazon.com and Tesla amplified performance. These stocks benefited from a decrease in inflationary pressures, potentially peaking policy rates, decreases in energy costs, and a pronounced wave of AI-related positive sentiment.

Globally, the U.S. has outperformed its Developed Markets ex-US and Emerging Markets counterparts, with the latter's growth segment being the laggard and barely crossing the quarter-end in positive territory. The relative underperformance of the Morningstar Emerging Markets Growth Index was mainly driven by stock exposure and sector tilts, with pressure being added by technology, consumer cyclical, and communication services. Additionally, the index didn't match its global counterpart's performance because of regional factors, as China, Thailand, and Turkey considerably underperformed against most developed markets. The index, revitalized by the stellar performance of India and Brazil, however, closed the quarter in neutral territory. It is worth noting that the Global Style indexes are constructed from various regional indexes that ascribe style scores relative to other companies within the respective region. Consequently, there is a structural limit on the regional differences that can exist between global value and growth indexes. As such, it is unlikely that country tilts would ever be the primary driver of return differences between regional value and growth indexes. Sector tilts played a negligible role in relative performance across ex-U.S. developed markets, though they were more meaningful across emerging economies, particularly in technology and financial services.

Over the past decade in the U.S., growth beat value and large caps beat small caps. That is the opposite of what many factor investors have come to expect, as data going back to the 1920s suggests that smaller and more value-oriented stocks have tended to do better over the long term.¹ This more recent countervailing trend continued during the last year and was punctuated during the second quarter of 2023, with growth prevailing over value by a wide margin.

Extending the look-back period to the end of June 1997, which is the earliest available for the U.S. broad style indexes, small- and mid-cap stocks did in fact beat large caps, though the all-cap Morningstar US Market Broad Value Extended Index lagged its growth counterpart. Globally, since the end of June 2008 (the longest available performance horizon), growth stocks also outperformed value. Still, in the U.S., there was a notable trend across the lower ends of the market-cap spectrum: Smaller value stocks tended to do better than their growth counterparts. This is consistent with academic studies, which have shown the value effect has historically been the most pronounced among the smallest stocks.²

Risk

Not surprisingly, over long time horizons, smaller-cap stocks in the U.S. have tended to exhibit greater volatility and sensitivity to market fluctuations than their larger counterparts, as Exhibits 2 and 3 show.

¹ Source: French Data Library.

² Fama, E.F. & French, K. 2014. "A Five-Factor Asset Pricing Model." September 2014. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2287202

Such companies tend to have more-volatile earnings as they are more leveraged to the vagaries of niche markets and have a lower likelihood of enjoying durable competitive advantages relative to larger stocks.

The same pattern is observed across the one-year horizon, opposing the 2022 market environment, which had large caps being more volatile than small caps over short term horizons. Such deviations from academic expectations can occur during turbulent markets such as last year's, but they rarely hold over the long term. In addition to structural characteristics of the larger-cap indexes (including higher concentration and larger stocks being more prone to frequent news flow that can drive short-term trading activity), fluctuations in sector weightings also play a role in driving short-term volatility.

Exhibit 2 Standard Deviation (%)

US	1 Yr	5 Yr	10 Yr	Since Inception*
Morningstar US Market Extended	20.80	19.42	15.36	16.01
Morningstar US Market Broad Growth Extended	23.72	21.48	16.89	18.45
Morningstar US Market Broad Value Extended	20.25	19.02	15.07	15.24
Morningstar US Large Cap	20.50	18.84	14.97	15.64
Morningstar US Large Broad Growth	25.05	21.84	17.16	18.33
Morningstar US Large Broad Value	19.14	17.82	14.25	14.68
Morningstar US Mid Cap	22.50	21.13	16.61	17.61
Morningstar US Mid Cap Broad Growth	22.61	21.68	17.08	19.89
Morningstar US Mid Cap Broad Value	23.31	22.08	17.22	17.4
Morningstar US Small Cap Extended	25.06	24.51	19.70	20.29
Morningstar US Small Broad Growth Extended	22.94	23.70	19.26	22.49
Morningstar US Small Broad Value Extended	27.75	26.52	21.04	19.85
Global				
Morningstar Global Target Market Exposure	19.29	17.83	14.45	16.86
Morningstar Global Growth	21.38	18.84	15.11	16.99
Morningstar Global Value	18.73	18.34	14.83	17.23
Morningstar Developed Markets ex-US	20.19	17.89	14.94	17.93
Morningstar Developed Markets ex-US Growth	21.49	17.62	14.56	17.08
Morningstar Developed Markets ex-US Value	19.84	19.51	16.24	19.3
Morningstar Emerging Markets	21.88	18.44	16.60	21.02
Morningstar Emerging Markets Growth	22.46	19.05	16.49	20.71
Morningstar Emerging Markets Value	21.46	19.23	17.84	21.51

Source: Morningstar Direct. Data as of June 30, 2023.

*This includes performance backtested to the end of June 1997 for U.S. indexes and June 2008 for Global indexes. Returns longer than one year annualized. All index performance data displayed are for Total Return USD variants.

Exhibit 3 Market Beta

US	1 Yr	5 Yr	10 Yr	Since Inception*
Morningstar US Market Extended	1.00	1.00	1.00	1.00
Morningstar US Market Broad Growth Extended	1.09	1.06	1.06	1.11
Morningstar US Market Broad Value Extended	0.92	0.94	0.94	0.90
Morningstar US Large Cap	0.98	0.96	0.97	0.97
Morningstar US Large Broad Growth	1.11	1.05	1.05	1.08
Morningstar US Large Broad Value	0.86	0.88	0.89	0.86
Morningstar US Mid Cap	1.04	1.06	1.05	1.06
Morningstar US Mid Cap Broad Growth	1.06	1.07	1.06	1.16
Morningstar US Mid Cap Broad Value	1.03	1.05	1.04	0.96
Morningstar US Small Cap Extended	1.12	1.18	1.17	1.14
Morningstar US Small Broad Growth Extended	1.04	1.13	1.14	1.22
Morningstar US Small Broad Value Extended	1.20	1.22	1.21	1.06
Global				
Morningstar Global Target Market Exposure	1.00	1.00	1.00	1.00
Morningstar Global Growth	1.07	1.02	1.01	0.99
Morningstar Global Value	0.93	0.99	0.99	1.00
Morningstar Developed Markets ex-US	1.00	1.00	1.00	1.00
Morningstar Developed Markets ex-US Growth	1.04	0.95	0.94	0.93
Morningstar Developed Markets ex-US Value	0.96	1.06	1.06	1.06
Morningstar Emerging Markets	1.00	1.00	1.00	1.00
Morningstar Emerging Markets Growth	1.02	1.00	0.96	0.97
Morningstar Emerging Markets Value	0.98	1.01	1.04	1.01

Source: Morningstar Direct. Data as of June 30, 2023.

*This includes performance backtested to the end of June 1997 for U.S. indexes and June 2008 for Global indexes. Returns longer than one year annualized. All index performance data displayed are for Total Return USD variants.

Irrespective of size, value and growth stocks in the U.S. have tended to exhibit similar risk characteristics with each other over the past decade, though several periods have contravened this pattern. For example, growth stocks were a bit more volatile over the longest look-back period from July 1997 through June 2023. This is partly attributable to the dot-com bubble, and subsequent correction, during the early 2000s.

Globally, value stocks have tended to be more volatile over longer time horizons. This tendency, however, hasn't been as demonstrable and was quite negligible over the past year. This is an interesting juxtaposition to the U.S. and global broad universe, where growth stocks were decidedly more volatile over the past year.

While their risk, when viewed through the conventional lens of return volatility, will go through periods of divergence and convergence, it's worth remembering that value and growth styles carry different fundamental risk profiles. Value stocks tend to have weaker profitability, encounter stiffer competition, and face more daunting secular headwinds than growth stocks. Growth stocks tend to have healthier businesses and more auspicious industry positioning, but they often come with rich valuations that

could compress if they fall short of (often lofty) investor expectations. That said, some of these value and growth risks are firm-specific, which the broad style indexes largely diversify away.

Portfolio Highlights

June Reconstitution

Morningstar's broad style index family was reconstituted in June (the next reconstitution will be in December) according to its reconstitution schedule. As a result, the composition of the indexes changed more noticeably between the first and second quarters than they did between the previous two quarters. Changes can be driven by corporate actions, style and size migration, or price fluctuations of existing constituents. Exhibit 4 shows how much the U.S. indexes and select global variants changed over the past quarter, one year, and five years, using active share to measure the difference in the index portfolio before and after reconstitution. Exhibit 5 shows the top five new constituents added to each index during the June reconstitution.

Exhibit 4 Active Share (%) of Each Index Against Itself Over Time

US	1 Qr	1 Yr	5 Yr
Morningstar US Market Extended	5.48	10.61	26.67
Morningstar US Market Broad Growth Extended	12.76	18.69	45.14
Morningstar US Market Broad Value Extended	11.39	16.14	37.22
Morningstar US Large Cap	6.44	11.38	26.98
Morningstar US Large Broad Growth	12.68	17.22	45.40
Morningstar US Large Broad Value	11.85	17.10	39.51
Morningstar US Mid Cap	13.26	23.37	48.29
Morningstar US Mid Cap Broad Growth	19.30	31.09	56.44
Morningstar US Mid Cap Broad Value	21.50	32.20	57.24
Morningstar US Small Cap Extended	14.91	24.73	52.84
Morningstar US Small Broad Growth Extended	22.77	36.18	64.55
Morningstar US Small Broad Value Extended	22.06	31.79	60.44
Global			
Morningstar Global Target Market Exposure	5.19	10.46	27.84
Morningstar Global Growth	12.40	19.78	46.40
Morningstar Global Value	11.03	17.51	37.79

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 5 Top Five New Constituents Added to Each Index in June 2023

Index	New Constituents
Morningstar US Market Extended	Ferguson PLC, GE HealthCare Technologies, Warner Bros. Discovery, Healthcare Realty Trust, Shoals Technology Group
Morningstar US Market Broad Growth Extended	Meta Platforms, Sysco, Intercontinental Exchange, Occidental Petroleum, NXP Semiconductors NV
Morningstar US Market Broad Value Extended	UnitedHealth Group, Advanced Micro Devices, Charles Schwab, S&P Global, T-Mobile US
Morningstar US Large Cap	Arthur J. Gallagher & Co, Biogen, Arista Networks, Las Vegas Sands
Morningstar US Large Broad Growth	Meta Platforms, Arista Networks, Intercontinental Exchange, Arthur J. Gallagher & Co, Occidental Petroleum
Morningstar US Large Broad Value	UnitedHealth Group, Advanced Micro Devices, Charles Schwab, S&P Global, Biogen
Morningstar US Mid Cap	NXP Semiconductors NV, TE Connectivity, Capital One Financial, IQVIA Holdings, American International Group
Morningstar US Mid Cap Broad Growth	Hilton Worldwide Holdings, Sysco, Paychex, Agilent Technologies, IQVIA Holdings
Morningstar US Mid Cap Broad Value	Capital One Financial, American International Group, Exelon, Williams Companies, L3Harris Technologies
Morningstar US Small Cap Extended	Pure Storage, Generac Holdings, Norwegian Cruise Line Holdings, Arrow Electronics, Roku
Morningstar US Small Broad Growth Extended	Pure Storage, Roku, EastGroup Properties, Toast, Acadia Healthcare Co
Morningstar US Small Broad Value Extended	Norwegian Cruise Line Holdings, Arrow Electronics, Jones Lang Lasalle, Omega Healthcare Investors, Assurant
Morningstar Global Target Market Exposure	GE Healthcare Technologies, DSM Firmenich AG, Fair Isaac, Liberty Formula One Group, Brookfield Asset Management
Morningstar Global Growth	Meta Platforms, Allianz SE, Uber Technologies, Mondelez International, Occidental Petroleum
Morningstar Global Value	Tencent Holdings, Advanced Micro Devices, S&P Global, Charles Schwab, ABB Ltd

Source: Morningstar Direct. Data as of June 30, 2023.

The Morningstar US Market Extended Index, which spans all styles, didn't change materially during the June reconstitution. Price fluctuations can explain most of the changes to that index's allocation over the past quarter. That said, there were some notable additions to the index in June, including Warner Bros. Discovery, after a spinoff from AT&T, and Ferguson Plc. The Global TME index's story was not much different, with price fluctuations accounting for most changes during the quarter. Additions to the index include GE Healthcare Technologies, due to a spinoff from parent company GE, DSM Firmenich AG (a merger between DSM and Firmenich), and Fair Isaac.

The Morningstar US Large Cap Index also had low turnover. Many of its new constituents were former mid-cap stocks that migrated to large-cap territory. Notable additions in the June reconstitution were Arthur J. Gallagher & Co, Biogen, Arista Networks, Las Vegas Sands, which migrated from mid- to large cap.

Stocks' movement across the value-growth spectrum accounted for many of the changes to the U.S. large value and growth indexes. For example, the Morningstar US Large Growth Index picked up Meta Platforms and Intercontinental Exchange, as they moved from value into the core section of the Morningstar Style Box. Conversely, S&P Global and UnitedHealth Group were added to the Morningstar US Large Value Index.

In the U.S., turnover was higher among the small- and mid-cap indexes than it was for the large-cap indexes because their largest constituents change more frequently, as they migrate across market-cap breakpoints. For instance, Arthur J. Gallagher & Co and Arista Networks were among the Morningstar US Mid Cap Index's largest holdings at the end of March, and then migrated to the large-cap index during the June reconstitution. When stocks drop from large cap to mid-cap or mid-cap to small cap,

their weightings in the smaller-cap index tend to be greater than the index from which they are excluded, creating more turnover in the smaller-cap index. For example, when Hilton Worldwide Holdings moved from the Morningstar US Large Cap Index to the Morningstar US Mid Cap Index in June, its weight in the mid-cap index was more than 3 times what it was as a large-cap constituent.

Opposite to their large-cap counterparts, which owe much of their turnover to style changes, size migration was responsible for most of the changes to the mid- and small-cap indexes in the U.S. For example, Hilton Worldwide Holdings, Sysco, and Paychex were among the largest additions to the Morningstar US Mid Cap Broad Growth Index, as the firms transitioned to the mid-cap growth segment from its large-cap counterpart, while Capital One Financial and Exelon were among the notable size segment migrations to the value section of the U.S. mid-caps. The narrative was similar in the small-cap side with many firms, like Pure Storage and Norwegian Cruise Line Holdings, migrating from the mid-cap segment.

The reconstitution did not have considerable impact on most of the sector weightings apart from the sizable increase in allocation of the technology sector across all regions, size, and style segments. Additionally, in emerging markets, financial-sector exposure has considerably increased, especially in the growth counterpart.

Sectors

The sector weightings for the broad style indexes are shown in Exhibit 6.

Exhibit 6 Sector Composition (%)

	Basic Materials	Communication Services	Consumer Cyclical	Consumer Defensive	Energy	Financial Services	Healthcare	Industrials	Real Estate	Tech	Utilities
US											
Morningstar US Market Extended	2.4	8.02	10.71	6.32	4.16	12.21	13.59	8.84	3.11	28.05	2.59
Morningstar US Market Broad Growth Extended	1.8	6.45	11.51	3.55	1.95	7.31	12.9	7.06	3.07	43.69	0.72
Morningstar US Market Broad Value Extended	3.07	9.77	9.79	9.44	6.62	17.71	14.32	10.83	3.16	10.59	4.69
Morningstar US Large Cap	1.41	9.69	10.51	6.99	4.42	12.25	14.11	6.19	1.22	31.69	1.54
Morningstar US Large Broad Growth	1.17	7.33	12.38	3.34	1.75	7.08	12.3	2.83	1.51	50.01	0.31
Morningstar US Large Broad Value	1.68	12.34	8.39	11.12	7.43	18.08	16.16	9.99	0.89	10.99	2.93
Morningstar US Mid Cap	5.46	3.51	10.15	4.56	3.16	11.49	11.08	16.08	9.03	18.59	6.89
Morningstar US Mid Cap Broad Growth	3.23	4.38	8.22	3.99	2.35	8.55	11.95	19.69	8.59	26.88	2.18
Morningstar US Mid Cap Broad Val	7.94	2.6	12.12	5.22	4.08	14.8	9.44	12.32	9.61	9.79	12.07
Morningstar US Small Cap Extended	4.42	2.93	13.8	4.13	4.07	13.39	15.35	16.56	6.94	15.92	2.42
Morningstar US Small Broad Growth Extended	4.41	2.88	10.86	4.49	2.89	6.63	20.67	17.94	5.16	22.78	1.28
Morningstar US Small Broad Value Extended	4.52	2.82	17.23	3.8	5.14	21.1	8.82	15.08	9.03	8.74	3.71
Global											
Morningstar Global Target Market Exposure	4.33	7.48	10.57	7.37	4.66	15.41	12.14	10.31	2.37	22.52	2.8
Morningstar Global Growth	2.81	6.92	12.25	6.42	2.51	9.08	12.44	10.37	2.25	33.65	1.28
Morningstar Global Value	5.94	8.09	8.76	8.4	6.93	22.13	11.84	10.19	2.5	10.76	4.39
Morningstar Developed Mkts ex-US	7.4	4.35	10.42	9.63	5.63	19.14	12.45	16.52	2.33	8.82	3.17
Morningstar Developed Markets ex- US Growth	4.28	3.57	13.03	11.28	2.36	8.56	18.29	20.46	1.86	14.37	1.95
Morningstar Developed Markets ex- US Value	10.61	5.15	7.7	7.96	8.97	30.03	6.5	12.39	2.82	3.16	4.42
Morningstar Emerging Markets	8.32	9.36	11.88	5.99	5.12	23.82	3.45	7.88	1.54	19.79	2.85
Morningstar Emerging Markets Growth	6.1	14.18	14.85	8.23	4.78	19.63	5.84	9.09	1.19	14.18	1.93
Morningstar Emerging Mkts Value	10.47	4.96	9.17	3.97	5.48	27.89	1.23	6.58	1.83	24.85	3.56
Morningstar Global Target Market Exposure	4.33	7.48	10.57	7.37	4.66	15.41	12.14	10.31	2.37	22.52	2.8
Morningstar Global Growth	2.81	6.92	12.25	6.42	2.51	9.08	12.44	10.37	2.25	33.65	1.28
Morningstar Global Value	5.94	8.09	8.76	8.4	6.93	22.13	11.84	10.19	2.5	10.76	4.39
Morningstar Developed Mkts ex-US	7.4	4.35	10.42	9.63	5.63	19.14	12.45	16.52	2.33	8.82	3.17
Morningstar Developed Markets ex- US Growth	4.28	3.57	13.03	11.28	2.36	8.56	18.29	20.46	1.86	14.37	1.95
Morningstar Developed Markets ex- US Value	10.61	5.15	7.7	7.96	8.97	30.03	6.5	12.39	2.82	3.16	4.42
Morningstar Emerging Markets	8.32	9.36	11.88	5.99	5.12	23.82	3.45	7.88	1.54	19.79	2.85
Morningstar Emerging Markets Growth	6.1	14.18	14.85	8.23	4.78	19.63	5.84	9.09	1.19	14.18	1.93
Morningstar Emerging Mkts Value	10.47	4.96	9.17	3.97	5.48	27.89	1.23	6.58	1.83	24.85	3.56
Morningstar Global Target Market Exposure	4.33	7.48	10.57	7.37	4.66	15.41	12.14	10.31	2.37	22.52	2.8
Morningstar Global Growth	2.81	6.92	12.25	6.42	2.51	9.08	12.44	10.37	2.25	33.65	1.28
Morningstar Global Value	5.94	8.09	8.76	8.4	6.93	22.13	11.84	10.19	2.5	10.76	4.39

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 6 Sector Composition (%). (Continued)

	Basic Materials	Communication Services	Consumer Cyclical	Consumer Defensive	Energy	Financial Services	Healthcare	Industrials	Real Estate	Tech	Utilities
Global											
Morningstar Global Target Market Exposure	4.33	7.48	10.57	7.37	4.66	15.41	12.14	10.31	2.37	22.52	2.8
Morningstar Global Growth	2.81	6.92	12.25	6.42	2.51	9.08	12.44	10.37	2.25	33.65	1.28
Morningstar Global Value	5.94	8.09	8.76	8.4	6.93	22.13	11.84	10.19	2.5	10.76	4.39
Morningstar Developed Markets ex-US	7.4	4.35	10.42	9.63	5.63	19.14	12.45	16.52	2.33	8.82	3.17
Morningstar Developed Markets ex-US Growth	4.28	3.57	13.03	11.28	2.36	8.56	18.29	20.46	1.86	14.37	1.95
Morningstar Developed Markets ex-US Value	10.61	5.15	7.7	7.96	8.97	30.03	6.5	12.39	2.82	3.16	4.42
Morningstar Emerging Markets	8.32	9.36	11.88	5.99	5.12	23.82	3.45	7.88	1.54	19.79	2.85
Morningstar Emerging Markets Growth	6.1	14.18	14.85	8.23	4.78	19.63	5.84	9.09	1.19	14.18	1.93
Morningstar Emerging Markets Value	10.47	4.96	9.17	3.97	5.48	27.89	1.23	6.58	1.83	24.85	3.56

Source: Morningstar Direct. Data as of June 30, 2023.

There are persistent differences in growth rates and valuations across sectors, leading to diverging sector weightings across the value and growth indexes, which can affect performance. For example, the Morningstar US Market Broad Growth Extended Index has greater exposure to the consumer cyclical and technology sectors than its value counterpart and less exposure to the consumer defensive, financial-services, industrials, utilities, and energy sectors. Most of these sector tilts were also present five years ago.

Interestingly, these sector tilts become less nuanced globally. For example, in developed markets outside the U.S., technology is less overrepresented in growth as compared with that of value relative to the U.S. region. Financial services and energy are underrepresented in growth as compared with value. It is noteworthy to mention that the Morningstar Emerging Markets Value TME Index is more skewed to the technology sector, being almost double to its growth counterpart, which is the contrary to what we observe in the U.S. and developed markets ex-U.S. While the ex-U.S. indexes only cover the large-mid size bands (as opposed to the all-cap coverage of the Morningstar US Market Extended Index), given cap weighting, we'd expect these style differences across regions to hold even when small caps are included.

In the U.S., there are also notable sector differences along the market-cap spectrum. The Morningstar US Large Cap Index has greater exposure to communication services, consumer defensive, and technology stocks than the Morningstar US Small Cap Extended Index and less exposure to the real estate and industrials sectors. These tilts were also present five years ago, but at that time, healthcare stocks represented a greater portion of the large-cap index than they did of the small-cap index. Since

then, that relationship has flipped, as we can see a slight decrease in exposure to the healthcare sector during the last quarter across the U.S. large-cap segment.

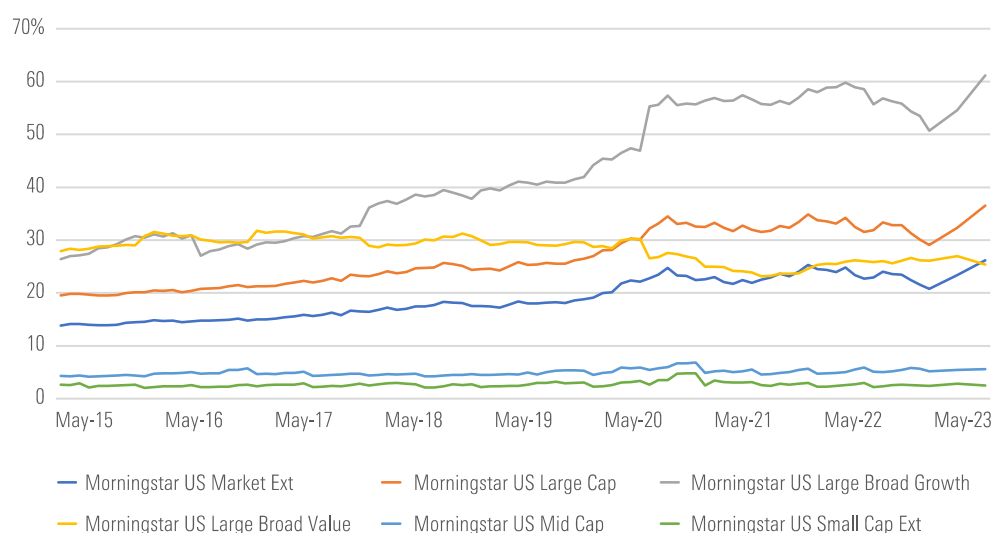
Concentration

The broad style indexes all skew toward the larger names within their respective segments, owing to market-cap weighting. This weighting approach reflects the composition of the opportunity set and allows companies to become a bigger part of the portfolios as they grow within each market-cap segment.

Concentration is most pronounced in the large-cap indexes (as shown in Exhibit 7), particularly in the Morningstar US Large Broad Growth Index, where the percentage of assets in the top 10 constituents has grown from 40% at the end of December 2018 to 60% five years later. The market has become more concentrated as the largest growth stocks have outperformed. This not only increased their market-cap weightings but also reduced the number of large-growth stocks required to reach 50% coverage of the large-cap market, reducing the number of stocks in the portfolio. Today, the Morningstar US Large Broad Growth Index holds 108 stocks, down from 161 six years ago. Moreover, the largest constituent in the index today (Apple) comprises over 17% of the portfolio, with Microsoft following closely at 15%, whereas six years ago, the equivalent weight for the largest holding (Alphabet) was less than half of today's number, just over 6%.

The small- and mid-cap indexes have far less concentration in their top 10 constituents, as there is a natural cap on how large constituents can grow before they advance to the next market-cap segment.

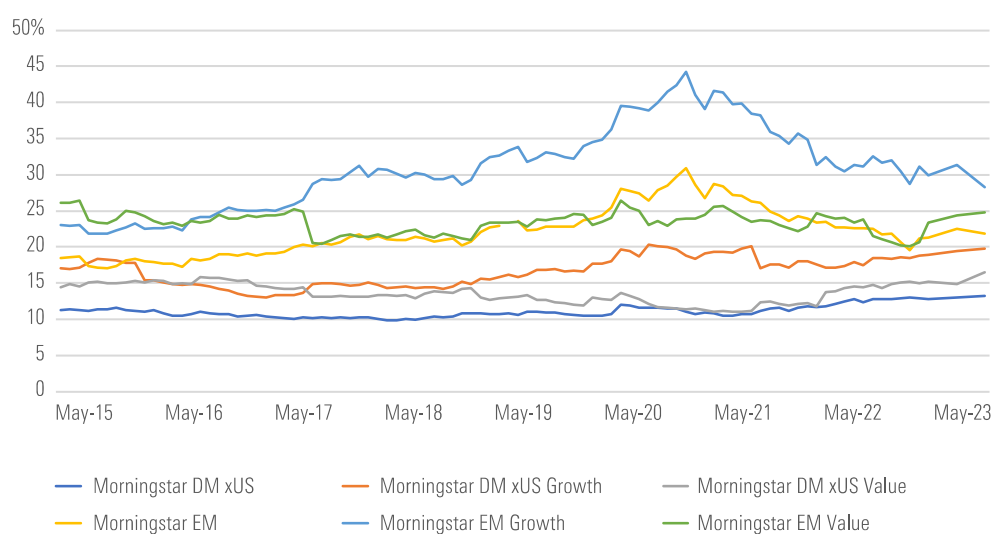
Exhibit 7 Percentage of Portfolio in Top 10 Holdings—U.S.



Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 8 shows concentration trends for the style indexes across emerging markets and ex-U.S. developed markets, along with the corresponding parent indexes. Concentration has been perennially higher in emerging markets, which implies that there are factors endemic to these markets that facilitate greater concentration of capital. Additionally, while the portfolios largely seem to be getting more concentrated over time, the recent trend in the Morningstar Emerging Markets Growth TME Index is interesting, with concentration falling precipitously since October 2020. This is partially due to the underperformance of Chinese mega-caps like Alibaba and Tencent, including the first half of 2022, which have been beleaguered by regulatory crackdowns on gaming, digital commerce, and the like.

Exhibit 8 Percentage of Portfolio in Top 10 Holdings — Global



Source: Morningstar Direct. Data as of June 30, 2023.

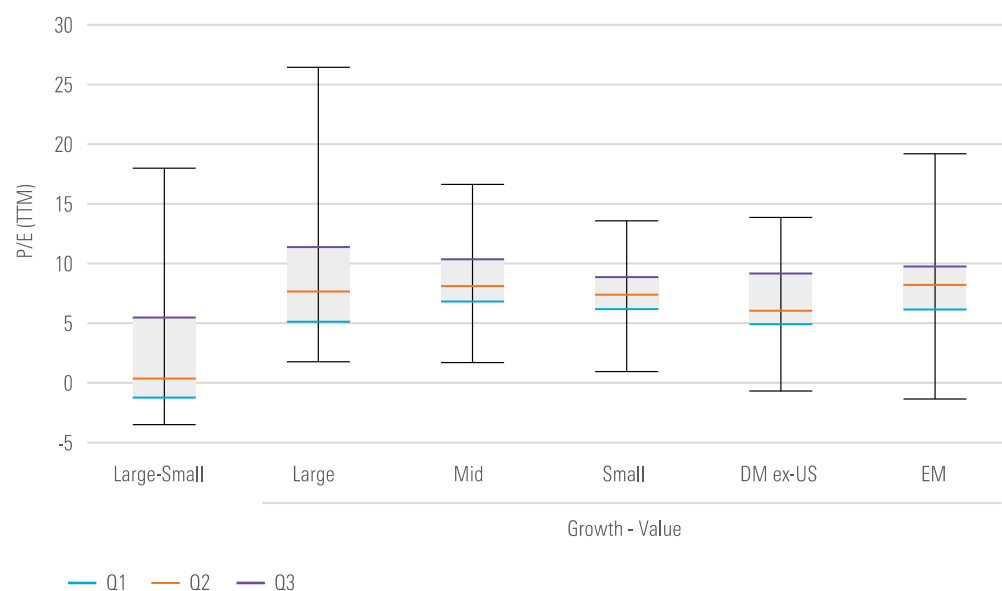
Valuations

By definition, growth stocks trade at higher valuations than value stocks. After years of stronger performance, growth stocks have become more expensive relative to value stocks. This trend holds true both in the U.S. and globally, as illustrated in Exhibits 9 through 15. These figures show the spread between the trailing 12-month P/E ratios of the growth and value indexes in the Morningstar Broad Style family for each of the three market-cap segments, as well as for the ex-U.S. developed-markets and emerging-markets regions of the Global Style family. It also includes this spread data for the Morningstar US Large Cap and Morningstar US Small Cap Extended indexes, along with historical distributions for all the spreads.

After a volatile first quarter of the year, followed by a recovery during the second quarter, relative valuations for growth stocks increased noticeably compared with the end of 2022 across all size segments and regions. As of June, the growth-value P/E spread was in the top quintile of historical distributions for all size bands and regions, with some of them above the 90th percentile, approaching

unprecedented levels. However, for US Mid, the spreads have been comparatively less pronounced than former indexes mentioned in this quarter.

Exhibit 9 P/E (TTM) Valuation Spread



	Growth - Value					
	US Large-Small	US Large	US Mid	US Small	DM ex-US	EM
Current P/E Valuation Spread	11.54	18.14	10.60	10.14	13.79	11.23
Percent Rank (%)	0.953	0.957	0.787	0.841	0.994	0.894

Source: Morningstar Direct. Data as of June 30, 2023.

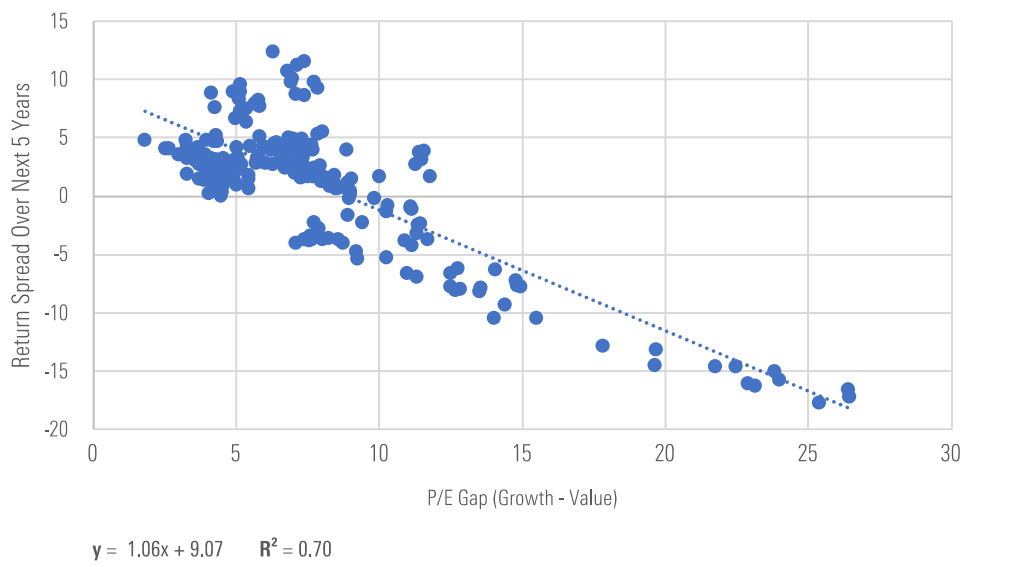
Unusually wide valuation spreads may portend lower expected returns for the pricier index. Historically, in the U.S., wider valuation spreads have been associated with lower returns over the next five years for the large- and mid-cap growth indexes relative to their value counterparts, as Exhibits 10 and 11 show. The same is true of the large-cap index relative to the small-cap extended index.

There wasn't a strong relationship between valuation spreads and future returns for the U.S. small-cap growth and value indexes. The same is true of the large-mid universe in emerging markets, displayed in Exhibit 15.

A startling and counterintuitive phenomenon can be observed in developed markets outside the U.S. (Exhibit 14), where there seems to have been a significantly positive relationship between valuation spreads and subsequent five-year returns. We view this as an anomaly, likely attributable to exogenous economic factors that have disproportionately benefited growth stocks over this period. It's also worth

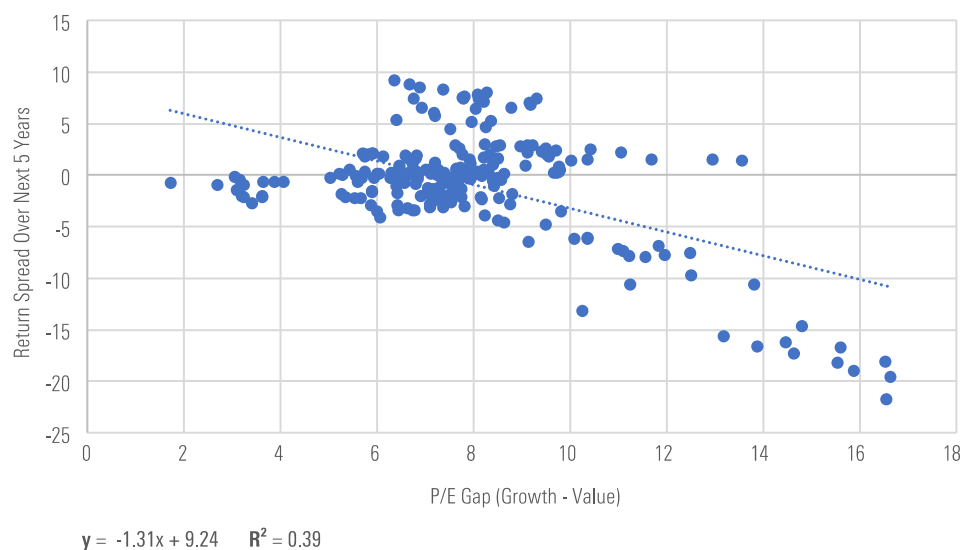
noting that the historical distribution of valuation spreads has been tightest in these ex-U.S. developed markets.

Exhibit 10 Relationship Between Valuations and Future Returns: November 1999 - June 2023 (Morningstar US Large Broad Growth Index - Morningstar US Large Broad Value Index)



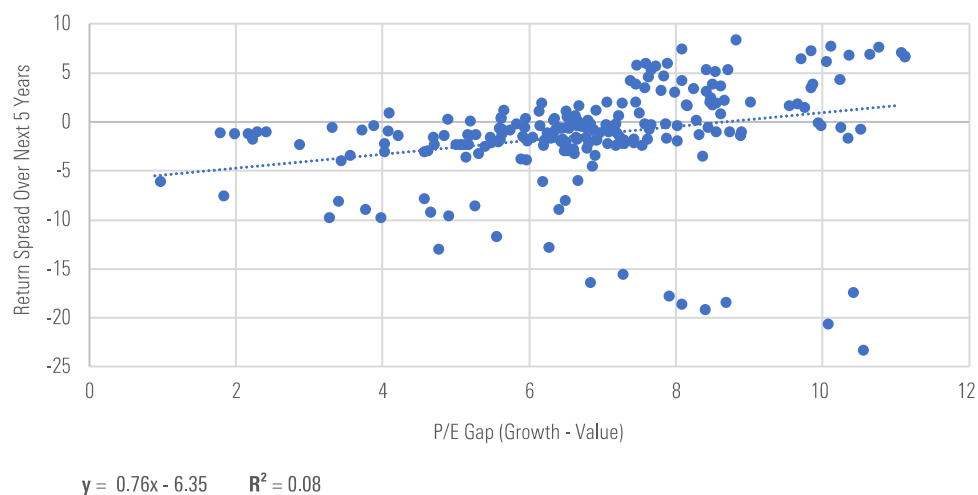
Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 11 Relationship Between Valuations and Future Returns: November 1999 - June 2023 (Morningstar US Mid Broad Growth Index - Morningstar US Mid Broad Value Index)



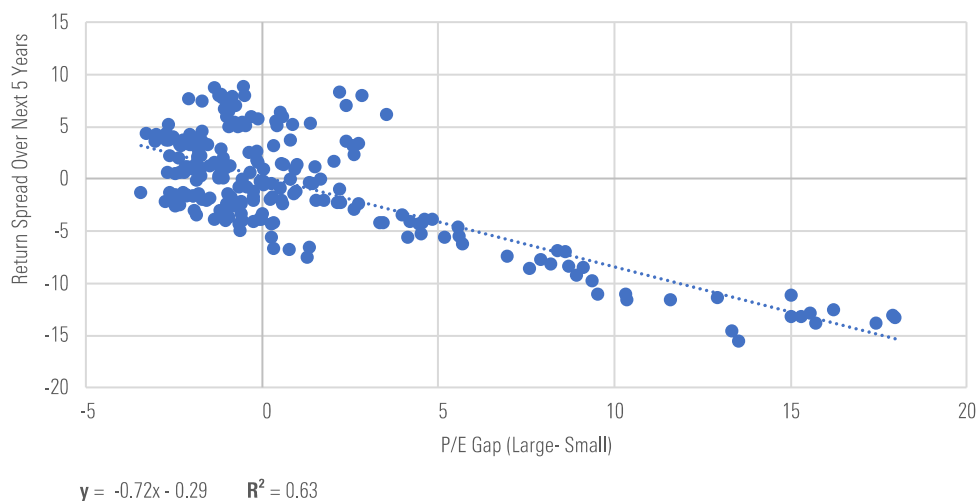
Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 12 Relationship Between Valuations and Future Returns: November 1999 - June 2023 (Morningstar US Small Cap Broad Growth Extended Index - Morningstar US Small Cap Broad Value Extended Index)



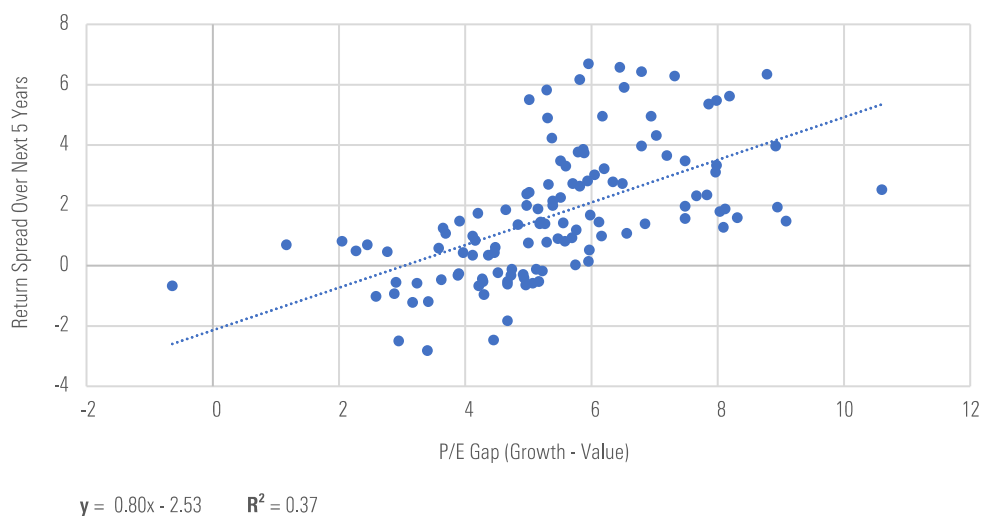
Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 13 Relationship Between Valuations and Future Returns: November 1999 - June 2023 (Morningstar US Large Index - Morningstar US Small Cap Extended Index)



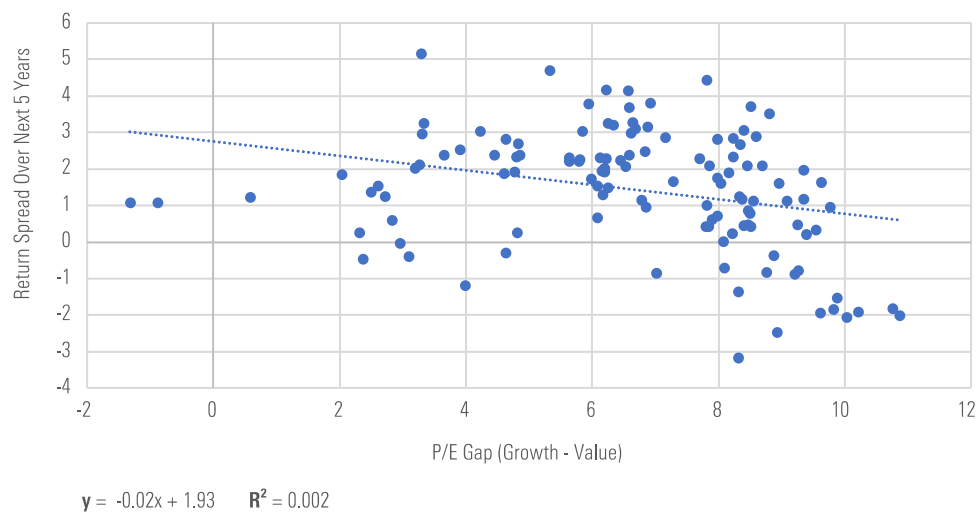
Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 14 Relationship Between Valuations and Future Returns: June 2008 - June 2023 (Morningstar DM ex-US Growth TME Index - Morningstar DM ex-US Value TME Index)



Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 15 Relationship Between Valuations and Future Returns: June 2008 - June 2023 (Morningstar EM Growth TME Index - Morningstar EM Value TME Index)



Source: Morningstar Direct. Data as of June 30, 2023.

Forever in Style

Regardless of market conditions, the Morningstar Broad Style and Global Style index families provide a robust toolkit for style investors. The indexes accurately represent the opportunity set available to style investors across different regions and can facilitate precise performance benchmarking and efficient asset allocation aligned with the Morningstar Style Box. For more information, visit

<https://www.morningstar.com/products/indexes-style>. 

Appendix

Appendix 1: Style Investing

Style investing focuses on two of the most important drivers of stock returns: size and valuations. In their 1992 seminal paper “The Cross-Section of Expected Stock Returns,” Nobel laureate Eugene Fama and Kenneth French demonstrated that differences in these two variables can explain much of the variation of stock returns. That was the same year the Morningstar Style Box launched. This tool divides the equity market into nine sections along two dimensions: size and value/growth orientation, which has become a widely adopted frame of reference for classifying managed portfolios and assessing performance.

This style framework is also useful for framing asset-allocation decisions. The large-value segment of the market is a fertile hunting ground for mature dividend-payers, while the large-growth segment is home to many highly profitable companies with strong prospects. Small-growth stocks tend to have the greatest potential for capital appreciation, but they also carry considerable risk. Finally, the small-value segment may be where the best bargains are. Historically, this market segment has had the highest returns, though it has experienced long stretches of underperformance.

The Morningstar Broad Style and Global Style indexes provide an effective toolkit to gauge style trends, both in the U.S. and globally. These indexes cast a wider net than the nine segments of the style box, carving the value-growth spectrum into halves rather than thirds. This better reflects the opportunity set available to style investors, as managers often color outside their designated section in the style box. Stocks in the blend segment of the market are partially allocated to both the value and growth indexes, as they often appear in both value and growth managers’ portfolios.

Appendix 2: Company Characteristics by Style

Morningstar’s broad style and global style indexes each focus on a different type of stock, reflecting how many active managers define their opportunity set.

Large-growth stocks are often among the market’s most enviable businesses. These firms not only tend to enjoy robust growth prospects but also typically benefit from dominant market positions and deploy extremely profitable business models. Within the Morningstar Broad Style Index family, the Morningstar US Large Broad Growth Index has the greatest exposure to stocks with Morningstar Economic Moat Ratings of wide, reflecting durable competitive advantages that Morningstar equity analysts expect to last for at least 20 years, as Exhibit 16 illustrates. However, the constituents of this index tend to generate a smaller share of their revenue outside the U.S. compared with any of the other broad style indexes that cover the U.S., as shown in Exhibit 17.

Similar to the U.S., global growth indexes have the greatest bent toward wide moat ratings, reflecting the structurally more favorable business models of these constituents. These durable competitive advantages are also more prevalent in developed markets relative to emerging. Companies listed in emerging markets are more likely to have to navigate headwinds like tenuous regulatory landscapes

(which invite competition) and more acute economic cyclicality (which detracts from our equity analysts' confidence in the durability of their profits).

Exhibit 16 Economic Moat Exposure (%)

US	Wide Moat	Narrow Moat	None
Morningstar US Market Extended	52.32	29.29	6.69
Morningstar US Market Broad Growth Extended	60.73	23.77	4.28
Morningstar US Market Broad Value Extended	42.90	35.51	9.42
Morningstar US Large Cap	69.06	27.79	2.67
Morningstar US Large Broad Growth	78.12	20.37	1.34
Morningstar US Large Broad Value	58.55	36.39	4.22
Morningstar US Mid Cap	14.20	43.59	20.67
Morningstar US Mid Cap Broad Growth	20.26	43.52	14.16
Morningstar US Mid Cap Broad Value	7.71	43.87	27.26
Morningstar US Small Cap Extended	0.91	9.07	8.42
Morningstar US Small Broad Growth Extended	1.02	8.28	7.41
Morningstar US Small Broad Value Extended	0.80	9.93	9.50
Global			
Morningstar Global Target Market Exposure	44.64	28.22	12.28
Morningstar Global Growth	55.68	24.72	6.12
Morningstar Global Value	32.85	32.19	18.93
Morningstar Developed Markets ex-US	26.76	25.64	24.23
Morningstar Developed Markets ex-US Growth	38.97	28.42	9.63
Morningstar Developed Markets ex-US Value	15.05	23.08	38.44
Morningstar Emerging Markets	14.13	16.10	14.02
Morningstar Emerging Markets Growth	16.44	13.82	12.03
Morningstar Emerging Markets Value	12.36	18.51	16.13

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 17 Revenue Generated in the U.S.

US	% of Revenue from the U.S.
Morningstar US Market Extended	61.73
Morningstar US Market Broad Growth Extended	57.72
Morningstar US Market Broad Value Extended	66.24
Morningstar US Large Cap	56.97
Morningstar US Large Broad Growth	52.60
Morningstar US Large Broad Value	62.90
Morningstar US Mid Cap	72.03
Morningstar US Mid Cap Broad Growth	71.05
Morningstar US Mid Cap Broad Value	73.83
Morningstar US Small Cap Extended	76.92
Morningstar US Small Broad Growth Extended	75.40
Morningstar US Small Broad Value Extended	79.27
Global	
Morningstar Global Target Market Exposure	43.92
Morningstar Global Growth	41.86
Morningstar Global Value	45.90
Morningstar Developed Markets ex-US	21.84
Morningstar Developed Markets ex-US Growth	25.08
Morningstar Developed Markets ex-US Value	18.56
Morningstar Emerging Markets	11.29
Morningstar Emerging Markets Growth	10.45
Morningstar Emerging Markets Value	12.44

Source: Morningstar Direct. Data as of June 30, 2023.

Large-value stocks tend to be more mature. These include slow-growth giants like Oracle and Procter & Gamble in the U.S. and Nestle outside of the U.S. Because they often have strong cash flows and limited need of it to fund growth, these stocks tend to make larger cash distributions to shareholders than their faster-growing and smaller counterparts.

Stocks in the middle of the value-growth spectrum, like Alphabet, are found in both the Morningstar US Large Broad Value and Growth indexes. That reflects that they are also found in both value and growth managers' portfolios, as they don't have a strong bias toward one style over the other.

Moving down the market-cap ladder tends to increase both risk and upside potential. Mid-cap growth stocks have a bit more growth runway than their larger counterparts. These companies are often at an earlier stage in their lifecycle yet have been successful, like Marvell Technology, or could be relatively mature firms transforming their businesses to align with secular growth trends across their markets, like consumer firm Yum Brand. Both companies were among the top holdings of the Morningstar US Mid Cap Broad Growth Index at the end of June 2023.

Small-growth stocks are riskier still. These firms tend to be less profitable and face greater uncertainty than better-established growth stocks, yet with this broader distribution of potential outcomes comes the juiciest growth potential. Pure Storage, a top holding in the Morningstar US Small Cap Broad Growth

Extended Index, exemplifies this promise and risk by leveraging its data storage products and applications in an economy that is constantly hungry for such services because of the horizontal transition to cloud services across industries. However, competition is fierce, and the industry tends to be quite cyclical, with demand troughs that can be just as deep and acute as the booms. Mid- and small-cap value stocks also carry greater risk and upside potential than their larger counterparts. This includes a mix of stocks that have simply matured before reaching the large-cap ranks, as well as names that have fallen out of favor, often for good reason. Biotechnology researcher Biogen is a good example of the former, while hospitality services provider Hilton Worldwide Holdings embodies the latter.

Smaller stocks tend to generate more of their revenue in the U.S., particularly on the value side. The constituents of the Morningstar US Small Cap Broad Value Extended Index generated a larger share of their revenue in the U.S. than any of the other broad style indexes, as shown in Exhibit 17.

Exhibits 18-32 show the top 10 constituents in the large-, mid-, and small-cap extended indexes, the value and growth indexes in those segments, as well as the value and growth indexes for ex-U.S. developed markets and emerging markets.

Exhibit 18 Top Holdings: Morningstar U.S. Large Cap Index

Constituent	Ticker	Sector	Weighting (%)
Apple Inc.	AAPL	Technology	8.88%
Microsoft Corp	MSFT	Technology	8.26%
Amazon.com Inc	AMZN	Consumer Cyclical	3.64%
Nvidia Corp	NVDA	Technology	3.43%
Alphabet Inc A	GOOGL	Communication Services	2.38%
Tesla, Inc	TSLA	Consumer Cyclical	2.28%
Alphabet Inc C	GOOG	Communication Services	2.06%
Meta Platforms, Inc. Class A	META	Communication Services	2.02%
Berkshire Hathaway B	BRK.B	Financial Services	1.96%
UnitedHealth Group Inc	UNH	Healthcare	1.39%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 19 Top Holdings: Morningstar U.S. Large Broad Growth Index

Constituent	Ticker	Sector	Weighting (%)
Apple Inc.	AAPL	Technology	16.62%
Microsoft Corp	MSFT	Technology	15.48%
Amazon.com Inc	AMZN	Consumer Cyclical	6.81%
Nvidia Corp	NVDA	Technology	6.42%
Tesla, Inc	TSLA	Consumer Cyclical	4.27%
Alphabet Inc A	GOOGL	Communication Services	2.72%
Alphabet Inc C	GOOG	Communication Services	2.35%
Visa Inc A	V	Financial Services	2.25%
Eli Lilly & Co	LLY	Healthcare	2.14%
Mastercard Inc A	MA	Financial Services	1.92%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 20 Top Holdings: Morningstar U.S. Broad Value Index

Constituent	Ticker	Sector	Weighting (%)
Berkshire Hathaway B	BRK.B	Financial Services	4.20%
Johnson & Johnson	JNJ	Healthcare	2.97%
Exxon Mobil Corp	XOM	Energy	2.96%
JP Morgan Chase & Co	JPM	Financial Services	2.92%
Meta Platforms, Inc. Class A	META	Communication Services	2.46%
Procter & Gamble	PG	Consumer Defensive	2.45%
Alphabet Inc A	GOOGL	Communication Services	2.00%
Chevron Corp	CVX	Energy	1.91%
Alphabet Inc C	GOOG	Communication Services	1.73%
AbbVie Inc.	ABBV	Healthcare	1.70%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 21 Top Holdings: Morningstar U.S. Mid Cap Index

Constituent	Ticker	Sector	Weighting (%)
Marvell Technology, Inc	MRVL	Technology	0.63%
NXP Semiconductor NV	NXPI	Technology	0.61%
Parker-Hannifin Corp	PH	Industrials	0.56%
Microchip Technology Inc	MCHP	Technology	0.56%
Workday Inc. A	WDAY	Technology	0.55%
TE Connectivity Ltd.	TEL	Technology	0.51%
Trane Technologies plc	TT	Industrials	0.51%
TransDigm Group	TDG	Industrials	0.51%
Capital One Financial	COF	Financial Services	0.50%
American Intl Group Inc	AIG	Financial Services	0.49%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 22 Top Holdings: Morningstar U.S. Mid Cap Broad Growth Index

Constituent	Ticker	Sector	Weighting (%)
Marvell Technology, Inc	MRVL	Technology	1.23%
Workday Inc. A	WDAY	Technology	1.07%
TransDigm Group	TDG	Industrials	0.99%
IDEXX Laboratories Inc	IDXX	Healthcare	0.94%
Yum! Brands Inc	YUM	Consumer Cyclical	0.91%
Hershey Foods Corp	HSY	Consumer Defensive	0.90%
MSCI Inc	MSCI	Financial Services	0.89%
Copart Inc	CPRT	Consumer Cyclical	0.87%
Hilton Worldwide Holdings Inc	HLT	Consumer Cyclical	0.87%
Sysco Corp	SYF	Consumer Defensive	0.87%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 23 Top Holdings: Morningstar U.S. Mid Cap Broad Value Index

Constituent	Ticker	Sector	Weighting (%)
Capital One Financial	COF	Financial Services	1.03%
American Intl Group Inc	AIG	Financial Services	1.01%
PACCAR Inc	PCAR	Industrials	1.00%
Exelon Corp	EXC	Utilities	1.00%
Nucor Corp	NUE	Basic Materials	0.93%
Dow Inc	DOW	Basic Materials	0.92%
The Williams Companies Inc	WMB	Energy	0.91%
L3Harris Technologies Inc	LHX	Industrials	0.90%
Simon Property Group A	SPG	Real Estate	0.90%
Horton D.R. Inc	DHI	Consumer Cyclical	0.88%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 24 Top Holdings: Morningstar U.S. Small Cap Extended Index

Constituent	Ticker	Sector	Weighting (%)
Pure Storage Inc	PSTG	Technology	0.39%
Super Micro Computer Inc	SMCI	Technology	0.38%
Inspire Medical Systems, Inc	INSP	Healthcare	0.33%
Roku Inc Class A	ROKU	Communication Services	0.32%
Saia Inc	SAIA	Industrials	0.30%
Tradeweb Markets Inc.	TW	Financial Services	0.29%
Norwegian Cruise Line Holdings Ltd	NCLH	Consumer Cyclical	0.29%
Tenet Healthcare	THC	Healthcare	0.29%
Graphic Packaging Holding Co	GPK	Consumer Cyclical	0.29%
nVent Electric plc	NVT	Industrials	0.29%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 25 Top Holdings: Morningstar U.S. Small Broad Growth Extended Index

Constituent	Ticker	Sector	Weighting (%)
Pure Storage Inc	PSTG	Technology	0.77%
Inspire Medical Systems, Inc	INSP	Healthcare	0.64%
Roku Inc Class A	ROKU	Communication Services	0.61%
Saia Inc	SAIA	Industrials	0.59%
Tradeweb Markets Inc.	TW	Financial Services	0.57%
Graphic Packaging Holding Co	GPK	Consumer Cyclical	0.56%
Clean Harbors Inc	CLH	Industrials	0.55%
EastGroup Properties	EGP	Real Estate	0.55%
TopBuild Corp	BLD	Industrials	0.54%
IRIDIUM COMMUNICATIONS INC.	IRDM	Communication Services	0.53%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 26 Top Holdings: Morningstar U.S. Small Value Extended Index

Constituent	Ticker	Sector	Weighting (%)
Norwegian Cruise Line Holdings Ltd	NCLH	Consumer Cyclical	0.60%
Tenet Healthcare	THC	Healthcare	0.59%
Arrow Electronics Inc	ARW	Technology	0.58%
Berry Global Group Inc	BERY	Consumer Cyclical	0.57%
New York Community Bancorp Inc	NYCB	Financial Services	0.57%
Coherent Corp.	COHR	Technology	0.57%
WESCO Intl Inc	WCC	Industrials	0.56%
Lithia Motors Inc	LAD	Consumer Cyclical	0.56%
Omega Healthcare Investors	OHI	Real Estate	0.54%
Jones Lang Lasalle Inc	JLL	Real Estate	0.54%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 27 Top Holdings: Morningstar Developed Markets ex-U.S. TME Index

Constituent	Ticker	Sector	Weighting (%)
Nestle SA Reg	NESN	Consumer Defensive	1.52%
ASML Holding NV	ASML	Technology	1.37%
Novo Nordisk AS B	NOVO B	Healthcare	1.23%
LVMH-Moet Vuitton	MC	Consumer Cyclical	1.17%
Novartis AG Reg	NOVN	Healthcare	1.15%
AstraZeneca Plc	AZN	Healthcare	1.11%
Roche Hldgs AG Ptg Genus	ROG	Healthcare	1.04%
Shell PLC	SHEL	Energy	1.01%
Toyota Motor Corp	7203	Consumer Cyclical	0.97%
BHP Group Ltd	BHP	Basic Materials	0.76%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 28 Top Holdings: Morningstar Developed Markets ex-U.S. Growth TME Index

Constituent	Ticker	Sector	Weighting (%)
ASML Holding NV	ASML	Technology	3.23%
Novo Nordisk AS B	NOVO B	Healthcare	2.91%
LVMH-Moet Vuitton	MC	Consumer Cyclical	2.75%
AstraZeneca Plc	AZN	Healthcare	2.60%
Nestle SA Reg	NESN	Consumer Defensive	2.08%
Siemens AG	SIE	Industrials	1.50%
L'Oreal	OR	Consumer Defensive	1.27%
SAP SE	SAP	Technology	1.18%
Diageo Plc	DGE	Consumer Defensive	1.11%
Keyence Corp	6861	Technology	1.11%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 29 Top Holdings: Morningstar Developed Markets ex-U.S. Value TME Index

Constituent	Ticker	Sector	Weighting (%)
Shell PLC	SHEL	Energy	2.35%
Toyota Motor Corp	7203	Consumer Cyclical	2.27%
BHP Group Ltd	BHP	Basic Materials	1.79%
HSBC Holdings Plc	HSBA	Financial Services	1.76%
Novartis AG Reg	NOVN	Healthcare	1.61%
Roche Hldgs AG Ptg Genus	ROG	Healthcare	1.53%
TotalEnergies	TTE	Energy	1.52%
Nestle SA Reg	NESN	Consumer Defensive	1.50%
BP	BP.	Energy	1.19%
Mitsubishi UFJ Financial Group Inc	8306	Financial Services	0.93%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 30 Top Holdings: Morningstar Emerging Markets TME Index

Constituent	Ticker	Sector	Weighting (%)
Taiwan Semiconductor Manufacturing Co Ltd	2330	Technology	4.41%
Samsung Electronics Co	005930	Technology	3.52%
Tencent Holdings Ltd.	00700	Communication Services	3.40%
Alibaba Group Holding Ltd	09988	Consumer Cyclical	2.20%
Reliance Industries Ltd	500325	Energy	1.32%
Meituan - Class B	03690	Consumer Cyclical	1.02%
HDFC Bank Ltd	500180	Financial Services	0.98%
International Holding Company PJSC	IHC	Industrials	0.95%
China Construction Bank Corp - H Shares	00939	Financial Services	0.78%
Housing Development Finance Corp	500010	Financial Services	0.72%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 31 Top Holdings: Morningstar Emerging Markets Growth TME Index

Constituent	Ticker	Sector	Weighting (%)
Taiwan Semiconductor Manufacturing Co Ltd	2330	Technology	6.24%
Tencent Holdings Ltd.	00700	Communication Services	3.69%
Alibaba Group Holding Ltd	09988	Consumer Cyclical	3.40%
Reliance Industries Ltd	500325	Energy	3.20%
Meituan - Class B	03690	Consumer Cyclical	2.49%
HDFC Bank Ltd	500180	Financial Services	2.39%
International Holding Company PJSC	IHC	Industrials	2.30%
Housing Development Finance Corp	500010	Financial Services	1.75%
ICICI Bank Ltd	532174	Financial Services	1.74%
PDD Holdings Inc.	PDD	Consumer Cyclical	1.28%

Source: Morningstar Direct. Data as of June 30, 2023.

Exhibit 32 Top Holdings: Morningstar Emerging Markets Value TME Index

Constituent	Ticker	Sector	Weighting (%)
Samsung Electronics Co	005930	Technology	7.73%
Tencent Holdings Ltd.	00700	Communication Services	4.14%
Taiwan Semiconductor Manufacturing Co Ltd	2330	Technology	4.05%
Alibaba Group Holding Ltd	09988	Consumer Cyclical	1.76%
China Construction Bank Corp - H Shares	00939	Financial Services	1.70%
Vale S.A.	VALE3	Basic Materials	1.40%
Hon Hai Precision Industry Co Ltd	2317	Technology	1.16%
Ping An Insurance (Group) Co of China Ltd H Shares	02318	Financial Services	1.11%
Samsung Electronics Co Pref	005935	Technology	1.05%
Industrial and Commercial Bank of China Ltd H Shares	01398	Financial Services	1.02%

Source: Morningstar Direct. Data as of June 30, 2023.

Appendix 3: Funds That Track Morningstar Broad Style Indexes**Exhibit 33** Funds That Track Morningstar Broad Style Indexes

Name	SecId	Ticker	Domicile	Primary Prospectus Benchmark
BNY Mellon US Large Cap Core Equity ETF	F0000149C0	BKLC	United States	Morningstar US Large Cap TR USD
iShares Morningstar Growth ETF	FEUSA04AC0	ILCG	United States	Morningstar US Large Mid Brd Grt TR USD
iShares Morningstar Value ETF	FEUSA04ACP	ILCV	United States	Morningstar US Large Mid Brd Val TR USD
Lyxor Core Morningstar US (DR) ETF-Dist	F0000109UX	LCUD	Luxembourg	Morningstar US Large-Mid NR USD
iShares Morningstar U.S. Equity ETF	FEUSA04ACN	ILCB	United States	Morningstar US Large-Mid TR USD
NBI U.S. Equity Index O	F000013VX6		Canada	Morningstar US Large-Mid TR USD
NBI U.S. Equity Index INV-2	F000016TJI		Canada	Morningstar US Large-Mid TR USD
iShares Morningstar Mid-Cap Growth ETF	FEUSA04ACR	IMCG	United States	Morningstar US Mid Cap Brd Grt TR USD
iShares Morningstar Mid-Cap Value ETF	FEUSA04ACS	IMCV	United States	Morningstar US Mid Cap Brd Val TR USD
BNY Mellon US Mid Cap Core Equity ETF	F0000149CP	BKMC	United States	Morningstar US Mid Cap TR USD
iShares Morningstar Mid-Cap ETF	FEUSA04ACQ	IMCB	United States	Morningstar US Mid Cap TR USD
iShares Morningstar Small-Cap Growth ETF	FEUSA04ACU	ISCG	United States	Morningstar US Small Brd Grt Ext TR USD
iShares Morningstar Small-Cap Value ETF	FEUSA04ACV	ISCV	United States	Morningstar US Small Brd Val Ext TR USD
iShares Morningstar Small-Cap ETF	FEUSA04ACT	ISCB	United States	Morningstar US Small Cap Ext TR USD

Source: Morningstar Direct. Data as of June 30, 2023.

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