M RNINGSTAR Indexes

Morningstar[®] **US Broad Style Wide Moat Focus Indexes** Style-constrained exposure to wide moat stocks with attractive valuations.

Morningstar Inc.

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The Morningstar Moat Focus Index framework leverages insights from Morningstar's equity research team to target companies with durable competitive advantages and attractive valuations. Because Morningstar equity research analysts use long-term forward-looking information to assess these characteristics, while traditional style classifications are rooted in historical data and near-term consensus estimates, this approach does not always lead to a consistent style orientation. The flagship index in this family, the Morningstar Wide Moat Focus Index, is style-agnostic. Although this capitalizes on the most attractive opportunities wherever they are found, the absence of style constraints may contribute to unwanted style drift for some investors.

The Morningstar US Broad Growth Wide Moat Focus Index and Morningstar US Broad Value Wide Moat Focus Index are designed to provide greater style consistency than the Morningstar Wide Moat Focus Index while leveraging the same economic moat rating and price/fair value inputs. As individual strategies, these indexes can facilitate greater style consistency while taking advantage of the most attractive stocks within each segment. Together, these indexes are complementary. Investors can use these indexes together with the Morningstar Wide Moat Focus Index to better diversify risk and mitigate style drift.

Key Takeaways

- The Morningstar US Broad Style Wide Moat Focus indexes leverage the same metrics as the Morningstar Style Box to maintain style consistency, while targeting stocks with wide moat ratings and attractive valuations, powered by the insights of Morningstar's equity research team.
- To ensure style alignment, stocks must rank in the top two thirds of its respective size segment, by market value, based on the index's targeted style.
- The Morningstar US Broad Style Wide Moat Focus indexes are tilted from equal weight based on their style scores. Eligible pure value or growth stocks are included at a full weighting. Stocks in the middle third of the style spectrum are eligible for inclusion in both indexes at a partial inclusion factor.
- The Morningstar US Broad Value Wide Moat Focus and Morningstar US Broad Growth Wide Moat Focus indexes are highly complementary with limited portfolio overlap as well as differentiated sector exposures and moat sources.
- The combination of the Morningstar US Broad Value Wide Moat Focus, Morningstar US Broad Growth Wide Moat Focus, and Morningstar Wide Moat Focus indexes in a portfolio delivers more consistent style exposures and lower active risk than the Morningstar Wide Moat Focus Index alone.

Moat Focus Index Framework

Morningstar's moat focus indexes leverage the forward-looking insights of Morningstar's equity research team to target companies with durable competitive advantages and attractive valuations. The unique combination of fundamental insights and transparent construction rules behind these indexes offers the benefits of both active and passive investing.

Combining analysis of valuations and competitive advantages has proved quite powerful. The economic moat framework is based on the premise that capitalism works over the long term: High profits attract competition, ultimately eroding profits and shareholder returns. However, a competitive advantage can slow this process, allowing a firm to maintain elevated returns on invested capital for many years.

Morningstar Equity Research defines a company with an economic moat as one with a structural competitive advantage that allows it to sustain economic profits over a long period of time. Companies with this quality are rare, but those that qualify tend to compound substantial economic profits over time. When assigning moat ratings, Morningstar equity analysts consider both qualitative and quantitative evidence in determining whether the company is likely to generate returns on invested capital above its weighted average cost of capital.

To receive a Morningstar Economic Moat Rating of wide, the Morningstar equity research team must believe that a company will, with near certainty, deliver economic profits for at least 10 years, and, more likely than not, for at least 20 years. Narrow-moat companies should, more likely than not, generate economic profits for at least the next 10 years. The magnitude of economic profits is far less important than the expected duration of those profits.

It's important to highlight that Morningstar does not consider economic moat ratings to be predictive of performance. No matter how competitively advantaged a company is, if purchased above fair value, it could turn out to be a poor investment. For this reason, the moat focus indexes incorporate a valuation screen in addition to an economic moat screen.

The valuation methodology employed by the Morningstar equity research team relies on cash flow forecasts. A company's fair value estimate is the present value of all free cash flow the company is expected to generate in the future. These fair value estimates are compared against prevailing stock prices to generate a price/fair value ratio. The Morningstar moat focus indexes aim to capitalize on situations when a company's valuation has moved below its intrinsic value.

Unique Style

The Morningstar Wide Moat Focus Index, launched in February 2007, is the flagship index in this family. While this portfolio typically operates in the large-blend segment of the Morningstar Style Box, it is not style-constrained. In some market environments, it may tilt toward the value side of the market, and at other times, it may tilt toward growth, as shown in Exhibit 1. The portfolio migrates wherever Morningstar's equity research analysts see the most attractive opportunities on a company-by-company basis.



Source: Morningstar Indexes. Data from 1/1/2007-2/29/2024. Data as of 2/29/2024.

The absence of style constraints allows this index to capitalize on the most attractive opportunities wherever they are found, strengthening the influence of the price/fair value signal. However, for some investors, this may contribute to unwanted style drift.

Classic Style

The Morningstar US Broad Growth Wide Moat Focus and Morningstar US Broad Value Wide Moat Focus indexes are designed to provide greater style consistency than the Morningstar Wide Moat Focus Index while incorporating the same economic moat rating and price/fair value inputs.

These indexes are derived from the Morningstar US Market Index, which covers the top 97% of the US equity market by market capitalization. Stocks from this starting universe are assigned a composite value/growth style score based on the same 10 metrics that underpin the Morningstar Style Box, as shown in Exhibit 2.

Exhibit 2 Style Metrics

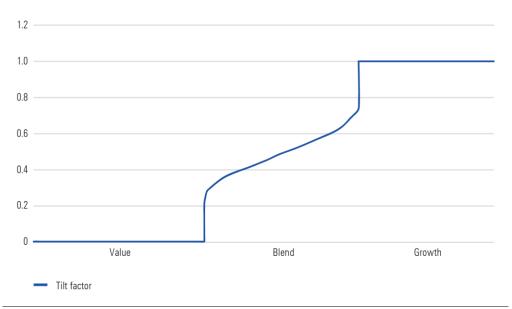
1. Determine a value score			2. Determine a growth score			3. Determine a style score		
Factors		Weight % Factors			Weight %	Subtract the value score from the growth score.		
Forward-looking	Price/projected earnings	50.0	Forward-looking	Long-term projected earnings growth	50.0	Growth score Value score	0 to 100 0 to 100	
Historical	Price/book	12.5	Historical	Earnings growth	12.5	Style score	-100 to 100	
	Price/sales	12.5		Sales growth	12.5		—100	Val Cor Gro +100
	Price/cash flow	12.5		Cash flow growth	12.5			
	Dividend yield	12.5		Book value growth	12.5			

Source: Morningstar Indexes.

To be eligible for inclusion, each company must rank in the top two thirds of its respective size segment, by market value, based on the index's targeted style. Qualifying stocks must also have a wide economic moat rating. The 30 eligible stocks with the lowest price/fair value ratios are selected for inclusion in the index.

The indexes are tilted from equal weight based on their style scores. Stocks that rank in the top one third of value or growth style scores across the starting universe are considered to have "style purity." As such, they may only be included in one of the two style indexes. If selected, they are included at a full weighting. Stocks in the middle third of the style spectrum are eligible for inclusion in both indexes at a partial inclusion factor, as shown in Exhibit 3.





Source: Morningstar Indexes. Data as of December 2023.

Complementary Exposures

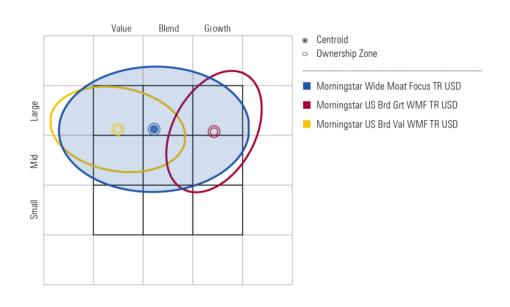
These three wide moat focus indexes are highly complementary and have limited overlap, as shown in Exhibit 4. As expected, the portfolio overlap was particularly low between the value and growth exposures, but a bit higher with the style-agnostic Morningstar Wide Moat Focus Index. Exhibit 5 shows the placement of each index in the Morningstar Style Box, illustrating the style diversification they can offer.

Exhibit 4 Portfolio Overlap

	Morningstar US Broad Value Wide Moat Focus	Morningstar US Broad Growth Wide Moat Focus	Morningstar Wide Moat Focus	
Morningstar US Broad Value Wide Moat Focus	100%			
Morningstar US Broad Growth Wide Moat Focus	22.58%	100%		
Morningstar Wide Moat Focus	66.35%	52.80%	100%	

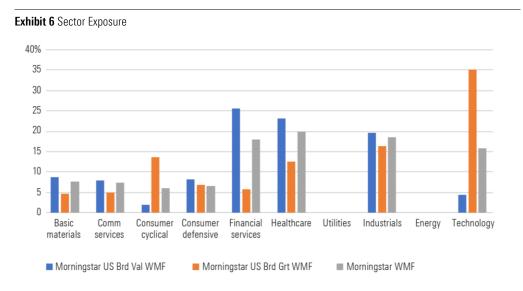
Source: Morningstar Indexes. Data as of 02/29/2024

Exhibit 5 Style Map



Source: Morningstar Indexes. Data as of 02/29/2024.

As expected for portfolios with different style orientations, the sector exposures of these three indexes are distinct. As shown in Exhibit 6, technology and consumer cyclical stocks were more common in the Morningstar US Broad Growth Wide Moat Focus Index, while healthcare, financial-services, and industrials stocks were prevalent in the Morningstar US Broad Value Wide Moat Focus Index.



Source: Morningstar Indexes. Data as of 2/29/2024.

We also observe differences in the distribution of moat sources for stocks across the style spectrum, further contributing to diversification. Morningstar has identified five economic moat sources: cost advantage, efficient scale, intangible assets, network effect, and switching cost. For further details, please see the Appendix.

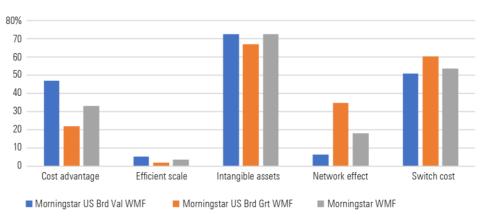


Exhibit 7 Moat Source Exposure (Morningstar US Broad Style Wide Moat Focus Indexes)

Source: Morningstar Indexes. Data as of 2/29/2024.

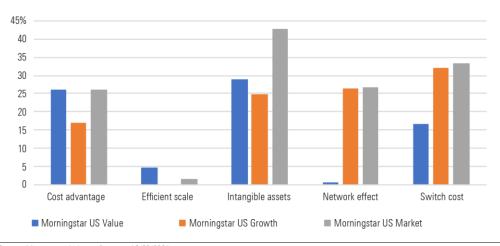


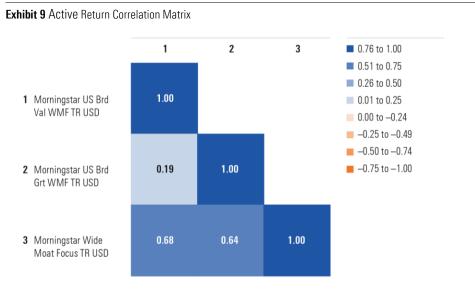
Exhibit 8 Moat Source Exposure (Morningstar US Style Indexes)

Source: Morningstar Indexes. Data as of 2/29/2024.

Network effect and switching costs are more common moat sources in the growth version than the value version. The network effect moat source is most common in the technology sector, which has a higher representation of growth-oriented stocks.

On the value side, cost advantage and efficient scale are more common relative to the growth version. This is intuitive. Mature, slower-growing firms often compete on cost, and market leaders have had more time to build cost advantages versus earlier-stage growth stocks. Cost advantage is more common among consumer defensive and financial-services stocks, which tend to lean toward value, relative to more growth-oriented sectors. Similarly, efficient scale is more prevalent among markets of limited size with high barriers to entry, like utilities and telecoms, which tend to be more value-oriented.

These portfolio differences help diversify risk. As Exhibit 9 shows, the market-relative performance of the three moat focus indexes is only moderately correlated, indicating the portfolios do not move closely together. Exhibit 10 further illustrates that strong performance of the Morningstar US Broad Growth Wide Moat Focus Index is often coupled with weak performance for the Morningstar US Broad Value Wide Moat Focus Index, and vice versa. This relationship makes these portfolios highly complementary.



Source: Morningstar Indexes. Data as of 2/29/2024.

Note: Benchmarked against the Morningstar US Market Index.

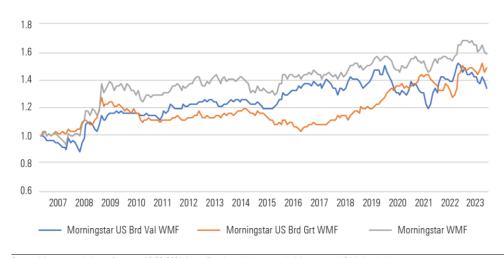


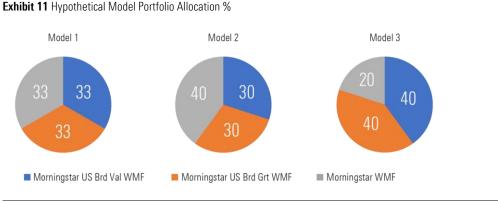
Exhibit 10 Relative Wealth

Source: Morningstar Indexes. Data as of 2/29/2024. Note: Benchmarked against the Morningstar US Market Index.

This complementary performance is partially due to the differences relating to the cyclicality of the two indexes. The Morningstar US Broad Growth Wide Moat Focus Index is more cyclical than its value counterpart, as shown in Exhibit 12. In contrast, the Morningstar US Broad Value Wide Moat Focus Index has tended to be more defensive.

Better Together

The differentiated risk, sector, style, and moat source exposures between these indexes make them complementary and worth considering together in a portfolio. To illustrate, consider the three hypothetical model portfolios shown in Exhibit 11, which bring these three moat focus indexes together in different allocations.



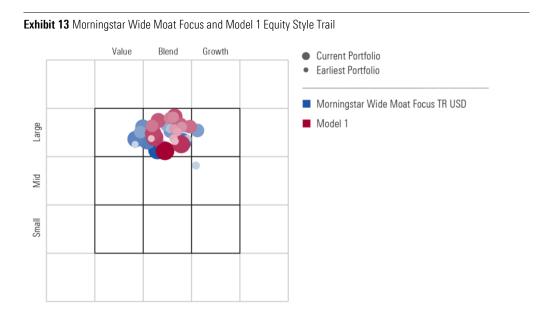
Source: Morningstar Indexes.

Exhibit 12 Performance Summary

						1-Year Batting	3-Year Batting	5-Year Batting
		Tracking			Sharpe	Average (Rolling	Average (Rolling	Average (Rolling
	Return	Error	Beta	Std Dev	Ratio	Returns)	Returns)	Returns)
Morningstar US Brd Val WMF TR USD	11.75	7.64	0.93	16.86	0.67	64.43	82.35	91.78
Morningstar US Brd Grt WMF TR USD	12.25	6.32	1.09	18.88	0.65	67.01	67.06	65.75
Morningstar Wide Moat Focus TR USD	12.78	8.19	1.07	19.27	0.66	65.46	87.65	95.21
Model 1	12.37	6.12	1.03	17.88	0.68	73.20	90.59	98.63
Model 2	12.42	6.29	1.04	18.00	0.68	72.16	90.00	98.63
Model 3	12.26	5.80	1.02	17.65	0.68	72.16	89.41	98.63
Morningstar US Market TR USD	9.80	0.00	1.00	16.30	0.58	0.00	0.00	0.00

Source: Morningstar Indexes. Data as of 2/29/2024.

All three model portfolios delivered more consistent style exposures and lower active risk than the Morningstar Wide Moat Focus Index alone. They also delivered comparable risk-adjusted performance amid lower volatility and slightly lower returns over the long term. Over shorter windows, these models have enjoyed slightly higher batting averages. Accordingly, these wide-moat focus combinations have reduced the risk of short-term underperformance thanks to their diversification benefits.



Source: Morningstar Indexes. Data as of 2/29/2024.

Appendix

Moat Sources

Intangible Assets: Morningstar recognizes four major forms of competitive advantage from intangibles: brands, patents, proprietary technology, and regulation. Each of these forms helps increase pricing power, typically by limiting competition or prompting customers to pay a higher price for a perceived benefit.

Switching Costs: Switching costs are inconveniences or expenses that a customer incurs to change from one product or service to another. Customers typically won't change providers unless the value proposition of doing so more than offsets the implicit costs. Price is not the only determinant of switching costs, as risk, hassle, distraction, psychology, and inertia can also come into play.

Network Effect: The network effect occurs when the value of a good or service increases for both new and existing users as more customers use that good or service, often creating a virtuous circle that allows the strong to get stronger. A network effect as a moat source can be present only if the firm can properly monetize the network, which is not a given for many services and industries. Also, value must increase for all parties in a network—not just buyers or shoppers, but also suppliers and developers. Finally, the network's value proposition must increase as network usage rises via more users, more usage per customer, or both.

Cost Advantage: Firms that can provide goods or services at a lower cost have an advantage because they can undercut their rivals on price. Alternatively, they may sell their products or services at the same prices as rivals but achieve a fatter profit margin. Cost advantage by itself is uncommon; rather, it typically exists in combination with another moat source. Many cost advantage moats are in combination with intangible assets, with brands and scale often working together.

Efficient Scale: This dynamic typically applies to firms that serve a market of limited size, in which potential competitors have little incentive to enter because doing so would lower the industry's returns below the cost of capital. Morningstar has identified eight characteristics of efficient scale markets: mature demand, excess capacity, commodity products, inelastic demand, high sunk costs, significant barriers to entry, credible deterrence, and historical precedent. Efficient scale markets support only one or a few competitors, limiting rivalry.

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors — and to be a leadingedge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers and advisors in navigating investment opportunities across major asset classes, styles and strategies. From traditional benchmarks and unique IP-driven indexes, to index design, calculation and distribution services, our solutions span an investment landscape as diverse as investors themselves.

Please visit indexes.morningstar.com for more information.

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