Morningstar Wide Moat Focus Index: The Benefits of a Valuation Focus

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The Wide Moat Focus Index's Valuation Screen Leads To A Contrarian Bias

"Be fearful when others are greedy, and greedy when others are fearful." -Warren Buffett

Investors often chase stocks that have performed well and avoid stocks that haven't. This "herd mentality" stems from various investor biases that can drive a divergence between a company's current valuation and its intrinsic value. Value and contrarian investment strategies both seek to capitalize on opportunities of this nature. However, value investors tend to focus on stocks that satisfy a set of traditional investment criteria, such a low price-to-earnings ratio or a low price-to-book ratio. These traditional value metrics typically reflect tempered expectations about a company's growth prospects or its efficiency in converting profits into free cash flow. While the same types of stocks may appeal to contrarian investors, contrarians tend to be more focused on the market sentiment. In other words, when a contrarian investor senses that negative market sentiment has led to an attractive valuation, he or she may be indifferent as to whether the stock classifies as "value" or "growth". For example, if a high-flying growth stock trades lower amid negative sentiment and seems to represent an attractive investment opportunity, the value investor would likely stay away while the contrarian investor might pile in.

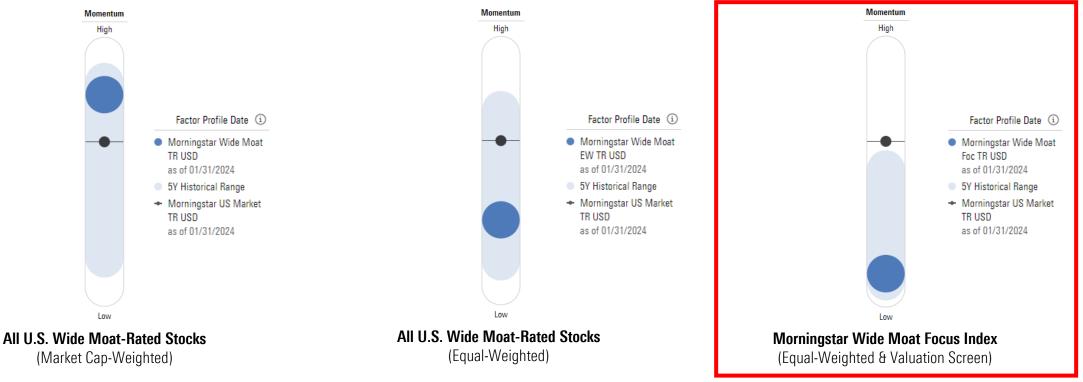
It's not difficult to find stocks that have performed poorly amid negative sentiment. However, these price declines are often warranted and not representative of attractive investment opportunities. The Morningstar Wide Moat Focus Index is built upon the forward-looking research of Morningstar equity analysts. Its impressive performance track record suggests that Morningstar equity analysts have been effective, on average, in determining when negative market sentiment is justified and when it represents an opportunity. Leveraging in-depth research from a team of more than 100 equity analysts, the index's long-term track record would be difficult to replicate.

While the Morningstar Wide Moat Focus Index relies on a valuation screen, it is not a value investing strategy. The recent price behavior of its newly-added holdings and the fact that it typically operates in the large/blend style box suggests that the index reflects a contrarian bias rather than a value bias. The index wasn't intentionally designed to harbor a contrarian bias and not every holding can be considered a contrarian opportunity. However, in screening for wide moat-rated companies at attractive valuations by use of a rules-based construction methodology, its consistent contrarian bias is a byproduct. Beating the market over long periods is guite difficult, especially in the large cap space. However, thanks to its contrarian approach that capitalizes on investors' behavioral biases, the index has done just that.

Indexes are unmanaged and not available for direct investment. Please note, while Warren Buffet originated the concept of an economic "moat," he is not personally involved with VanEck or the management of the VanEck Funds or ETFs, and he has not endorsed the funds or any of the content discussed herein.

Valuation Screen Byproduct: Underweight Momentum Factor

The Morningstar Wide Moat Focus Index tends to be significantly underweight the momentum factor, suggesting a contrarian bias. While we see little correlation between a company's economic moat rating and its exposure to momentum, the index's valuation screen significantly reduces momentum exposure. This is intuitive, as stocks often become undervalued and pass the index's valuation screen after a period of weaker performance and negative momentum. Then, once they start to perform well and establish positive momentum, they're likely to hit or exceed our fair value estimate and get removed from the index. Being underweight momentum allows the index to consistently trade at a discount to fair value.



Note: A stock's momentum score is calculated as its cumulative return from 365 days ago to 30 days ago (see Appendix B for more detail).

Time Period: 1/31/2019 – 1/31/2023

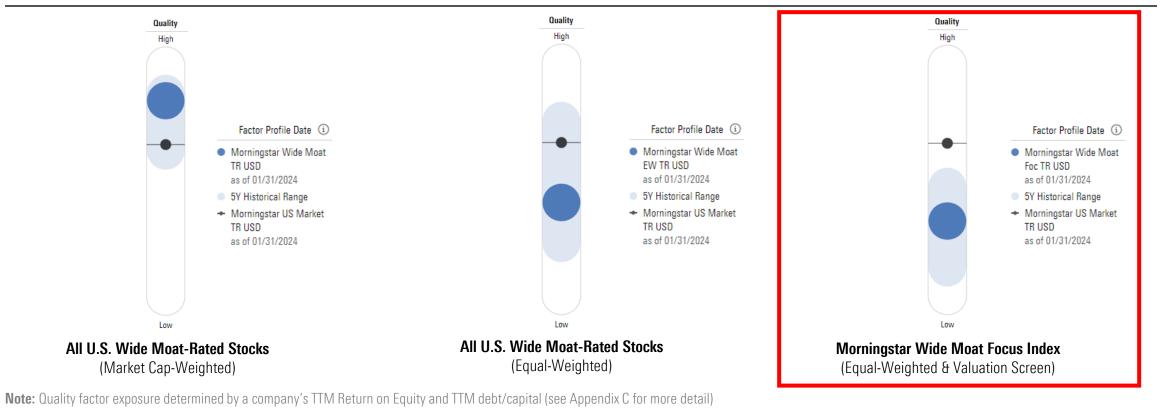
Source: Morningstar Direct

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Valuation Screen Byproduct: Underweight Quality Factor

It would seem obvious that an index screening for wide moat-rated companies would be overweight the quality factor. However, this is not the case for the Morningstar Wide Moat Focus Index. An economic moat rating reflects how durable a competitive advantage may prove to be in the future, not the company's recent performance. This forward-looking approach partially weakens the correlation between economic moat "width" and quality factor scores. The index's use of a valuation screen further reduces quality exposure. Attractive valuations often stem from a period of weaker recent financial performance that has reduced on a company's returns on equity or heightened its financial leverage.

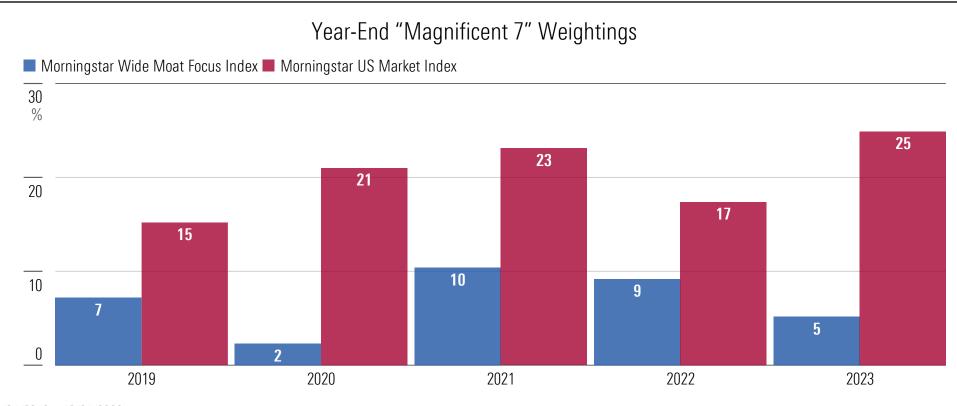


Time Period: 1/31/2019 – 1/31/2023

Source: Morningstar Direct

Valuation Screen Byproduct: Underweight Magnificent 7

The Morningstar Wide Moat Focus Index has been consistently underweight the Magnificent 7, a basket of stocks that includes Alphabet, Amazon, Apple, Tesla, Microsoft, Nvidia, and Tesla. At year-end 2023, the Mag 7 accounted for a 25% weighting of the Morningstar US Market Index but only a 5% weighting in the Morningstar Wide Moat Focus Index. This underscores the fact that the Morningstar Wide Moat Focus Index typically has limited exposure to the stocks that have had an outsize impact on the broad market's returns. Instead, it tends harvests return from more "unloved" corners of the market. Due to this dynamic and its equal-weighting scheme, the index is likely to remain underweight the Mag 7 going forward.

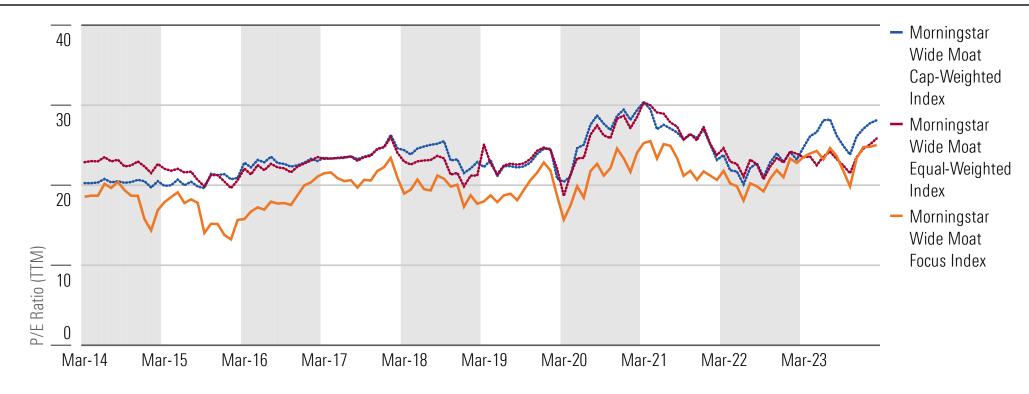


Time Period: 12/31/2019 – 12/31/2023

Source: Morningstar Direct

Valuation Screen Byproduct: Below-Market P/E Ratio

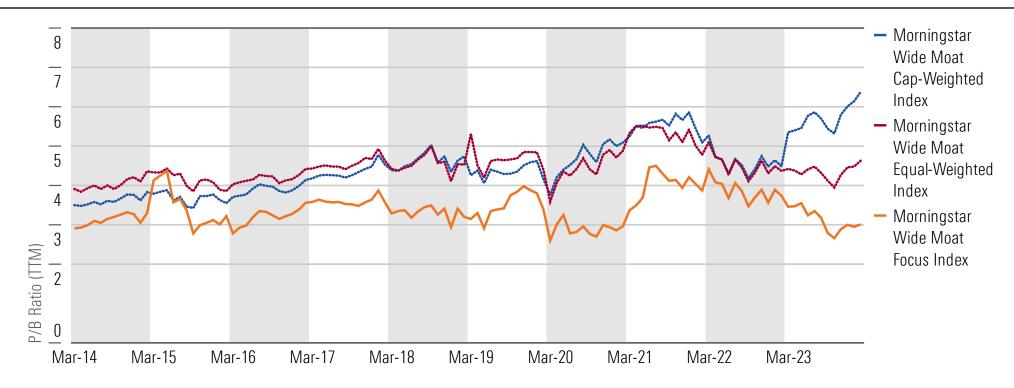
Thanks to its focus on valuation, the Morningstar Wide Moat Focus Index typically exhibits a lower TTM P/E ratio than market cap-weighted and equal-weighted baskets of all wide moat-rated stocks. Over the trailing 10-year period, the Morningstar Wide Moat Focus Index has traded at an average 20.1x TTM P/E ratio while these two comparable indexes that lack a valuation screen have traded at 23.7x and 23.5x, respectively. This compares to 20.9x for the Morningstar Market Index, a broad market benchmark. As wide moat-rated stocks typically trade at elevated multiples, the fact that the Morningstar Wide Moat Focus Index trades at a below-market multiple reflects its focus on valuation.



Time Period: 3/1/2014 - 2/29/2024**Source**: Morningstar Direct

Valuation Screen Byproduct: Low P/B Ratio vs. Comparable Indexes

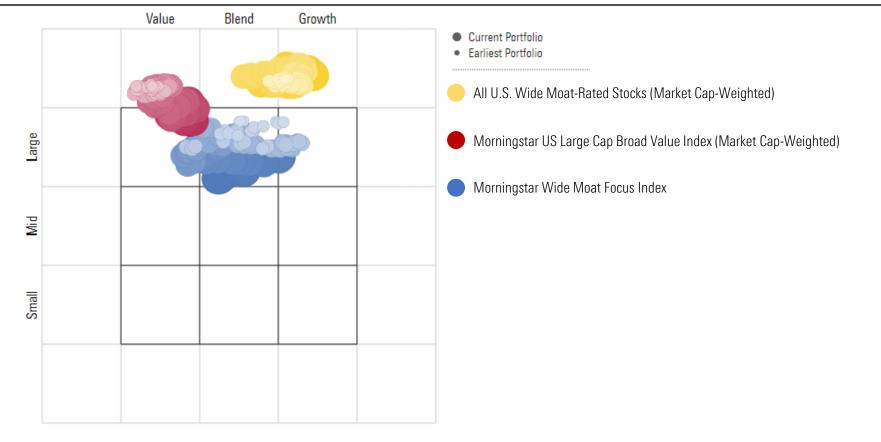
In addition to a lower P/E ratio, the Morningstar Wide Moat Focus Index has typically exhibited a lower P/B ratio than the two wide moat-focused comparable indexes shown below. Interestingly, P/B deviations across these three indexes have become even more stark over the last year amid outperformance from the Magnificent 7. As of February-end, the Morningstar Wide Moat Focus Index traded at only a 3.0x TTM P/B ratio while a market cap-weighted index of wide moat stocks traded at a far higher 6.4x multiple. Despite focusing purely on wide moat-rated stocks, the index's 10-year average TTM P/B ratio is roughly in line with that of its benchmark, the Morningstar US Market Index (3.4x vs. 3.2x).



Time Period: 3/1/2014 - 2/29/2024**Source**: Morningstar Direct

The Index's "Blend" Style Classification Highlights the Difference Between "Valuation" and "Value"

The Morningstar Wide Moat Focus Index has operated almost exclusively within the large/blend style box over the last ten years. Despite the use of a valuation screen, the fact that it screens as "blend" suggests that its valuation screen ends up providing a contrarian bias rather than a value bias. Interestingly, a market cap-weighted index of wide economic US moat stocks has historically exhibited a modest style bias towards "growth". This is due to the forward-looking nature of our economic moat methodology as well as the growth orientation of most wide moat-rated mega-cap stocks. Adding a valuation screen shifts the index's positioning away from a growth bias but doesn't move it all the way into the value category.



Time Period: 3/1/2014 – 2/29/2024 **Source**: Morningstar Direct

MORNINGSTAR® WIDE MOAT FOCUS INDEX SM

The Valuation Screen Capitalizes on Market Volatility

Valuation-focused investment strategies typically suffer when overall market sentiment is positive and the momentum factor is performing well (ie: "the winners keep winning"). However, when market volatility inevitably comes home to roost, contrarian investment strategies tend to perform quite well. Since inception, the Morningstar Wide Moat Focus Index has held up much better than its benchmark in the three calendar years that the U.S. equity market posted a negative total return (2007/2018/2022). Then, thanks to the contrarian fashion by which it cycles into beaten up wide-moat stocks before they recover, it also outperformed amid all three subsequent years in which the market rebounded (2008/2019/2023).

| Index Name | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-----------------------------------|-------|--------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| Morningstar Wide Moat Focus Index | -5.39 | -19.58 | 46.93 | 8.57 | 6.61 | 24.50 | 31.46 | 9.68 | -4.28 | 22.37 | 23.79 | -0.74 | 35.65 | 15.09 | 24.81 | -13.08 | 32.41 |
| Morningstar US Market Index | 2.47 | -37.03 | 28.45 | 16.80 | 1.58 | 16.27 | 33.13 | 12.85 | 0.69 | 12.44 | 21.47 | -5.05 | 31.22 | 20.90 | 25.78 | -19.43 | 26.43 |
| +/- | -7.85 | 17.46 | 18.48 | -8.23 | 5.03 | 8.24 | -1.68 | -3.17 | -4.97 | 9.93 | 2.32 | 4.31 | 4.43 | -5.81 | -0.98 | 6.35 | 5.97 |

| Index Name | Annual Total Return % | Std Dev % | Beta | Sharpe Ratio (arithmetic) | Sortino Ratio (arithmetic) | Information Ratio (arithmetic) | Upside Capture | Downside Capture | Max Drawdown % |
|-----------------------------------|--------------------------|-----------|------|------------------------------|-------------------------------|--------------------------------------|-------------------|---------------------|-------------------|
| Morningstar Wide Moat Focus Index | 13.01 | 18.64 | 0.96 | 0.61 | 1.00 | 0.44 | 108.98 | 86.98 | -35.10 |
| Morningstar US Market Index | 9.61 | 17.68 | 1.00 | 0.52 | 0.76 | | 100.00 | 100.00 | -45.54 |

Data: 4/1/2007 — 12/31/2023

Data Frequency: Quarterly | **Source**: Morningstar Direct

Benchmark: Morningstar US Market Index All performance data reflects USD total returns

Earnings Releases Often Serve as a Catalyst For the Upward Revaluation of Index Holdings

Valuation-focused investing typically requires a catalyst to dilute negative market sentiment and inspire the upward revaluation of a given holding. For wide moat-rated firms, this catalyst often comes in the form of earnings releases. Amid negative sentiment, favorable earnings releases or even earnings releases that are "not as bad as feared" can remind investors that the underlying business model is solid and cash flows may not be materially impaired over the long-term. Versus its benchmark, our research indicates that the Morningstar Wide Moat Focus Index's relative performance during earnings season has been far more favorable than it has been between earnings seasons.



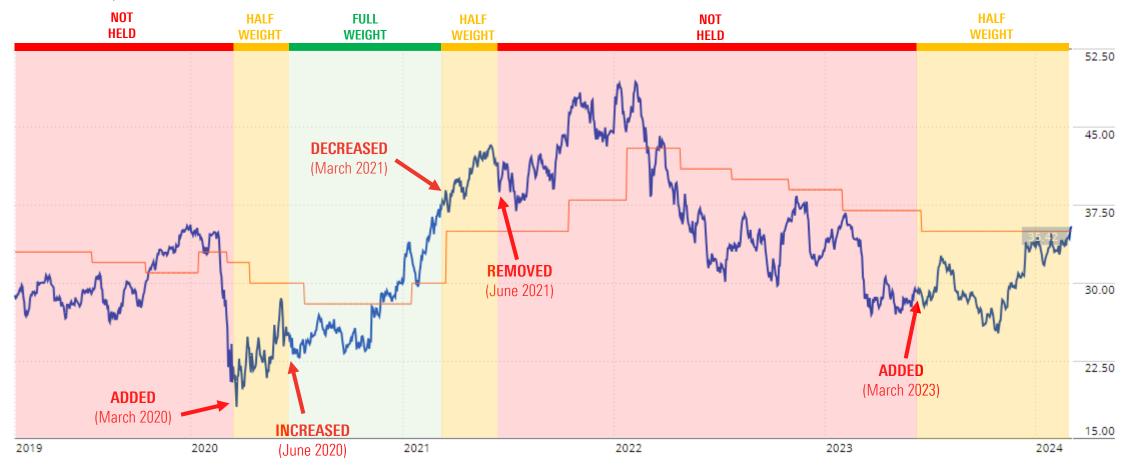
Note: Earnings season date ranges specified in Appendix D

Time Period: 2/23/2007 – 2/22/2024 Benchmark: Morningstar US Market Index

Source: Morningstar Direct

Case Study: Bank of America (BAC)

Summary: Amid the onset of the pandemic in March 2020, negative sentiment regarding the impact of a broad economic slowdown on the US banking system became overblown and the stock offered an attractive entry point. In March 2023, following an extended period of weak performance amid concerns about the impact of a potential recession, the stock once again traded lower and become sufficiently undervalued to re-enter the index.



Time Period: 3/7/2019 - 3/6/2024

Source: Pitchbook

Case Study: Bristol-Myers Squibb (BMY)

Summary: Our research suggests the market has become overly focused on the firm's upcoming patent losses. While these patent cliffs will have a significant impact on cash flows, the market underappreciates the likely impact of newer drug launches that will help reinforce the firm's wide economic moat over the long-term. We feel Bristol is building out a strong drug pipeline that exhibits a higher probability of development success, given its focus on areas of need such as immunology, oncology, and rare diseases.

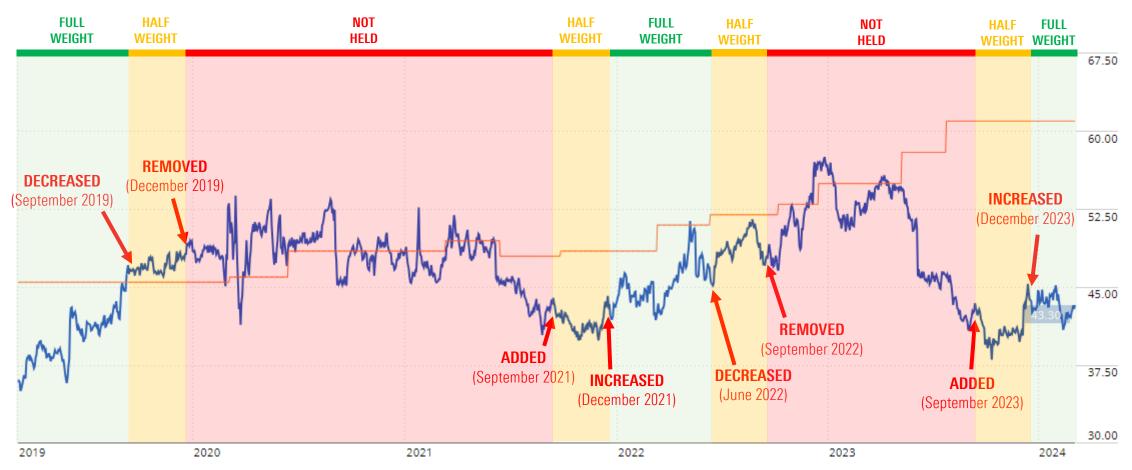


Time Period: 3/7/2019 - 3/6/2024

Source: Pitchbook

Case Study: Campbell Soup (CPB)

Summary: Although Campbell shares held up well in the early innings of the global pandemic, negative sentiment took hold in mid-2021 amid pressing operational challenges that spurred a weak guidance outlook. However, our forecasts already reflected weaker near-term expectations. Having become undervalued, the stock was added to the index. As shares recovered upward towards our fair value, Campbell was again phased out of the index. Despite shares trading lower amid weaker consumer spending, we raised our fair value and the stock was added again in late-2023.



Time Period: 3/7/2019 - 3/6/2024

Source: Pitchbook

Case Study: Workday (WDAY)

Summary: Amid a challenging year for the technology sector more broadly, Workday shares traded materially lower in 2022. The market soured on the stock amid concerns that a weaker macroeconomic environment would reduce and/or delay software expenditures. However, our fair value estimate was unchanged as we felt the market was overlooking the degree to which switching for the mission-critical software suite costs would help sustain healthy cash flows. Workday had a short stay in the index, as it converged upwards with its fairly value and was phased out in 2023.



Time Period: 3/7/2019 - 3/6/2024

Source: Pitchbook

Appendix A: Benefits & Challenges of Contrarian Investing

While contrarian investment strategies can pay off for patient investors, implementing them in an effective and repeatable manner can be challenging.

Benefits:

- Capitalizes on market inefficiencies from recurring behavioral biases.
- Can prove complementary to other strategies, as it rarely "doubles down" on other positions.
- Provides diversification relative to broad market exposure.
- Tends to take positions in assets for which there is less competition.
- Valuation discipline leads to favorable situations with asymmetrical risk vs. reward.

Challenges:

- Reaping the benefits often takes time. Contrarian investors must be patient and disciplined.
- Positions are often entered too early, well before market sentiment shifts and exited to late, missing out on additional returns.
- Stocks that are subject to negative market sentiment can often continue to trade lower. Contrarian investors will occasionally "catch a falling knife".
- Determining when "the crowd" is wrong requires thorough fundamental research for which there are no shortcuts.
- Going against "the herd" can be psychologically difficult.

Appendix B: Momentum Factor Definition From Morningstar Risk Model

Momentum

The momentum factor is the normalized value of the stock price's raw momentum score. The raw momentum score is calculated as the cumulative return of a stock from 365 calendar days ago to 30 days ago. This is the classical 12-1 momentum formulation except using daily return data as opposed to monthly. To compute, U.S. dollar currency returns are used.

$$momentum_{i,t} = \sum_{t-365}^{t-30} \left(ln \left(1 + r_{i,t} \right) - ln \left(1 + rf_t \right) \right)$$

The factor is unbounded, and higher scores indicate higher returns over the past year as well as a propensity for higher returns in the future. A score of 0 indicates an average level of momentum.

Source: Morningstar Risk Model

Appendix C: Quality Factor Definition From Morningstar Risk Model

Quality

We define a quality score of a stock as the equally weighted z-score of a company's profitability (trailing 12-month return on asset) and the z-score of its financial leverage (trailing 12-month debt/invested capital). The z-score is with respect to all the stocks in the global universe.

$$Quality = \frac{1}{2} \left[ROA_z + \left(1 - \frac{Total\ Debt_t}{Total\ Invested\ Capital_t} \right)_z \right].$$

where *ROA* is the trailing 12-month return on asset and the subscript z indicates a z-score.

The factor is unbounded, and higher scores indicate higher quality. A score of 0 indicates an average level of quality.

Source: Morningstar Risk Model

Appendix D: Earnings Season Date Ranges Associated With Slide 10

| 10-2007 : 4/10/2007 — 5/17/2007 | 10-2012 : 4/10/2012 – 5/17/2012 | 10-2017 : 4/18/2017 – 5/25/2017 |
|--|--|--|
| 20-2007 : 7/10/2007 – 8/16/2007 | 20-2012 : 7/10/2012 – 8/16/2012 | 20-2017 : 7/18/2017 — 8/24/2017 |
| 30-2007 : 10/9/2007 — 11/15/2007 | 30-2012 : 10/9/2012 – 11/15/2012 | 30-2017 : 10/13/2017 – 11/22/2017 |
| 40-2007 : 1/8/2008 – 2/14/2008 | 40-2012 : 1/8/2013 – 2/14/2013 | 40-2017: 1/16/2018 – 2/22/2018 |
| | | |
| 10-2008: 4/8/2008 — 5/15/2008 | 10-2013 : 4/9/2013 – 5/16/2013 | 10-2018 : 4/16/2018 — 5/24/2018 |
| 20-2008: 7/8/2008 — 8/14/2008 | 20-2013 : 7/9/2013 – 8/15/2013 | 20-2018 : 7/16/2018 – 8/23/2018 |
| 30-2008: 10/7/2008 – 11/13/2008 | 30-2013: 10/8/2013 – 11/14/2013 | 30-2018 : 10/15/2018 – 11/21/2018 |
| 40-2008: 1/13/2009 – 2/19/2009 | 40-2013: 1/14/2014 – 2/20/2014 | 40-2018 : 1/15/2019 — 2/21/2019 |
| | | |
| 10-2009 : 4/7/2009 — 5/14/2009 | 10-2014 : 4/8/2014 — 5/15/2014 | 10-2019: 4/16/2019 — 5/23/2019 |
| 20-2009 : 7/14/2009 — 8/20/2009 | 20-2014 : 7/8/2014 — 8/14/2014 | 20-2019 : 7/16/2019 — 8/22/2019 |
| 30-2009 : 10/13/2009 – 11/19/2009 | 30-2014 : 10/14/2014 – 11/20/2014 | 30-2019: 10/15/2019 – 11/21/2019 |
| 4Q-2009 : 1/12/2010 – 2/18/2010 | 40-2014 : 1/13/2015 – 2/19/2015 | 40-2019: 1/14/2020 — 2/20/2020 |
| | | |
| 10-2010 : 4/13/2010 — 5/20/2010 | 10-2015 : 4/14/2015 – 5/21/2015 | 10-2020: 4/14/2020 — 5/21/2020 |
| 20-2010 : 7/13/2010 — 8/19/2010 | 20-2015 : 7/14/2015 — 8/20/2015 | 20-2020: 7/14/2020 — 8/20/2020 |
| 30-2010 : 10/12/2010 – 11/18/2010 | 30-2015 : 10/13/2015 – 11/19/2015 | 30-2020: 10/13/2020 — 11/19/2020 |
| 4Q-2010: 1/11/2011 – 2/17/2011 | 40-2015 : 1/12/2016 – 2/18/2016 | 40-2020 : 1/19/2021 – 2/25/2021 |
| | | |
| 10-2011 : 4/12/2011 – 5/19/2011 | 10-2016 : 4/12/2016 – 5/19/2016 | 10-2021 : 4/15/2021 — 5/27/2021 |
| 20-2011 : 7/12/2011 – 8/18/2011 | 20-2016 : 7/13/2016 – 8/18/2016 | 20-2021 : 7/15/2021 — 8/26/2021 |
| 30-2011: 10/11/2011 – 11/17/2011 | 30-2016: 10/11/2016 – 11/17/2016 | 30-2021 : 10/14/2021 – 11/24/2021 |
| 40-2011: 1/10/2012 – 2/16/2012 | 40-2016: 1/18/2017 – 2/23/2017 | 40-2021 : 1/19/2022 – 2/24/2022 |
| Index Inception Date: 2/14/2007. | | |

10-2022: 4/18/2022 – 5/26/2022 **20-2022**: 7/18/2022 – 8/25/2022 **30-2022:** 10/17/2022 – 11/23/2022 **40-2022**: 1/13/2023 – 2/23/2023 **10-2023**: 4/18/2023 – 5/25/2023 **20-2023:** 7/18/2023 – 8/24/2023 **30-2023**: 10/17/2023 – 11/22/2023 **40-2023**: 1/12/2024 – 2/22/2024

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