# Morningstar Uncertainty Rating Methodology Update — Jul. 31, 2022 Frequently Asked Questions

## Can you provide further details on Morningstar's Uncertainty Rating methodology?

The Uncertainty Rating represents the analysts' ability to bound the estimated value of a company's shares around the Fair Value Estimate. Factors which can influence the uncertainty rating include operating and financial leverage, sales sensitivity to the overall economy, product concentration, pricing power, exposure to material ESG risks, and other company-specific factors.

Prior to the changes we're making on Jul. 31, 2022, analysts consider two scenarios in addition to their base case: a bull case and a bear case. Assumptions were chosen such that the analyst believes there is a 25% probability that the company will perform better than the bull case and a 25% probability that the company will perform worse than the bear case. The distance between the bull and bear cases in relation to the fair value estimate was used to assign an uncertainty rating. In cases where there is less than a 25% probability of an event, but where the event could result in material value destruction, analysts may adjust the uncertainty rating to reflect the increased risk.

Our recommended margin of safety — the discount or premium to fair value demanded before we'd recommend buying or selling the stock — widens as our Uncertainty Rating increases. The more uncertain we are about the estimated value of the equity, the greater the discount/premium we require relative to our estimate of the firm's value before we would recommend the purchase/sale of the shares.

Our Uncertainty Ratings are low, medium, high, very high, and extreme.

- Low—margin of safety for 5-star rating is a 20% discount and for 1-star rating is 25% premium.
- Medium—margin of safety for 5-star rating is a 30% discount and for 1-star rating is 35% premium.
- High—margin of safety for 5-star rating is a 40% discount and for 1-star rating is 55% premium.
- Very High—margin of safety for 5-star rating is a 50% discount and for 1-star rating is 75% premium.

• Extreme— margin of safety for 5-star rating is a 75% discount and for 1-star rating is 300% premium.

### What are the specific enhancements Morningstar is making to the Uncertainty Rating methodology?

Currently Morningstar equity analysts consider a range of intrinsic values for a company and the probability of these scenarios before assigning an Uncertainty Rating. This enhancement will allow analysts to see a suggested Uncertainty Rating produced based on the stock price's trailing twelve-month standard deviation.

While this rating will be a significant input into the Uncertainty Rating, analysts will still maintain the ability to override the suggested rating based on various other factors impacting uncertainty.

### What is the benefit of Morningstar updating Uncertainty Rating methodology?

The new approach incorporates the strengths of both humans and machines. A hybrid analyst/quant approach combines the advantages brought by a rigorous quantitative approach with an analyst overlay that will allow analysts to provide their unique insight where needed on top of a quantitatively driven foundation. The new approach also preserves our existing datapoint structure, making it an easy change for clients to adopt.

#### How will this update help investors using the Uncertainty Rating?

The quantitative element addition will enhance our analysts' qualitative assessment of the Uncertainty Rating to provide better current vs. fair value price assessment across all sectors and markets. In turn, this will provide improved analyst judgments at the individual stock level, greater ratings comparability across geographies, sectors, and analysts, and ultimately, better stock calls

## Will clients need to take any action to see the updated Uncertainty Rating?

No, the Uncertainty Rating and its underlying methodology will be updated automatically in all Morningstar products and data feeds, where available. We will not recalculate historical Uncertainty Ratings.

If clients utilize the Uncertainty Rating within their saved items or processing, they should be aware of the anticipated rating changes for the Uncertainty Ratings and in turn, the Morningstar Rating for Stocks.



## Is the new methodology "backward looking" given Morningstar will be using trailing-twelve-month trading data to inform the rating?

No, while the data is historical, we chose the metric based on how well it predicts future volatility. The new methodology is a more robust predictor of future outcomes than our existing methodology and the new method is indeed forward looking.

### Will Morningstar provide a case study on the Uncertainty Rating to review the update?

Yes, we calculated the historical performance using the new Uncertainty Rating methodology on our entire rating universe, back to mid-2005. However, the system we'll be implementing will include the quantitative approach with an analyst overlay., Given that we expect analysts to layer in their judgment on top of the default assumptions, there will be differences between the historical study and the live ratings.

### Given your analysis how much will the Uncertainty Rating, and in turn, the Morningstar Rating for stocks, change because of the enhancements Morningstar is making?

We are anticipating roughly 25% Uncertainty Ratings to change. Additionally, given the Uncertainty Rating methodology update is happening on the same day as the Analyst Valuation Model update, and both items contribute to the Morningstar Rating for Stocks, overall, we expect roughly 10% of star ratings to change (though subject to change).

## Will Uncertainty Ratings become more cyclical with the methodology update?

Somewhat, we do see Uncertainty Ratings rise during times of stress for all stocks. Within our case study and testing, it has shown that during major market dislocations (specifically 2008-2009 and 2020) Uncertainty Ratings increase the number of 4- and 5-star calls and are not diminished compared to the current methodology. The reason for this is because the market dislocation overwhelms the increase in uncertainty. For example, if a stock goes from medium to high, but still falls by 50% during the market downturn, it will be rated 5 stars regardless. Intuitively, this is what happens during these downturns where uncertainty increases, but stocks have fallen so much that they appear discounted even while factoring in the increased uncertainty.

## How will the changes make the Uncertainty Rating more relevant to key decisions investors face?

To the extent that we can bolster the accuracy of our Uncertainty Ratings, clients can more fully trust our final recommendations, and in turn, the associated Morningstar Rating for Stocks, rather than using it as one input among many.

### Why do you think these changes will make the Uncertainty Rating more effective?

Our current system relies on over 100 analysts to make probabilistic estimates of future outcomes. While the human touch adds substantial nuance, it's also difficult to calibrate these analysts' efforts across ratings, sectors, and different experience levels. Our new system directly ties volatility to our Uncertainty Ratings, increasing consistency across each dimension.

