Morningstar Analyst Valuation Model Update — Jul. 31, 2022 Frequently Asked Questions

Can you provide further details on the Analyst Valuation Model and Morningstar's specific approach?

At the heart of our valuation system is a detailed projection of a company's future cash flows, resulting from our analysts' independent primary research. Analysts create custom industry and company assumptions to feed income statement, balance sheet, and capital investment assumptions into our globally standardized, proprietary discounted cash flow, or DCF, modeling templates. We use scenario analysis, in-depth competitive advantage analysis, and a variety of other analytical tools to augment this process.

We believe this bottom-up, long-term, fundamentally based approach offers several advantages over other valuation techniques. The granularity in a multiyear, cash-flow forecast with many key inputs allows for detailed scenario analysis. It also helps us to identify potential future trends, and presents an opportunity to closely analyze returns on invested capital—all critical tenets of our Economic Moat framework and Uncertainty Ratings. Furthermore, it focuses analyst efforts on long-term business drivers, which have the greatest valuation impact, rather than short-term market noise that has little impact on intrinsic value.

Moreover, we think analyzing valuation through discounted cash flows presents a better lens for viewing cyclical companies, highgrowth firms, businesses with finite lives (such as mines), or companies expected to generate negative earnings over the next few years. That said, we don't dismiss multiples altogether but rather use them as supporting cross-checks for our DCF-based fair value estimates. We also acknowledge that DCF models offer their own challenges (including a potential proliferation of estimated inputs and the possibility that the method may miss short-term market-price movements), but we believe these negatives are mitigated by deep analysis and our long-term approach.

By applying the same valuation framework across our entire global coverage universe in a consistent manner, we are able to compare investment opportunities across industries and around the globe, apples-to-apples. Combining our analysts' financial forecasts with the economic moat rating helps us determine how long returns on invested capital are likely to exceed the firm's cost of capital. Returns of firms with a wide economic moat rating are assumed to fade to the perpetuity period over a longer period of time than the returns of narrow-moat firms, and both will fade slower than nomoat firms, increasing our estimate of their intrinsic value. As a

result of this methodology, our model is divided into three distinct stages of explicit forecast, fade, and perpetuity.

What is the benefit of Morningstar updating the Analyst Valuation Model?

The new Analyst Valuation Model versions are significantly more concise than the outgoing versions. They incorporate a direct connection with PitchBook (and thus, equity data) by default, allowing for more streamlined analysis. Lastly, the three models are designed to be more similar to one another, making it easier to draw comparisons and analysis between them.

How will this update help investors using the models?

Overall, the update will enable Morningstar's equity researchers to focus more on key value drivers, which should yield enhanced Fair Value Estimates, Uncertainty Ratings, and the Morningstar Rating for Stocks (also known as the "Star Rating"). These enhancements have direct correlation to investor outcomes.

Specifically, our updated models are designed for easy navigation and consistency. These changes should substantially increase usability for clients with direct access to our models.

Will clients need to take any action to see the updated Analyst Valuation Model?

No, the Analyst Valuation Model will automatically update, and these changes will flow to the applicable ratings and data points they support, such as the Morningstar Rating for Stocks.

Will Morningstar provide sample analysis on a stock to showcase the update?

This will be available upon request at a later date.

How much will the Analyst Valuation Model, and in turn, the Morningstar Rating for stocks, change because of the enhancements Morningstar is making?

Given the Analyst Valuation Model update is happening on the same day as the Uncertainty Rating methodology enhancement, and both items contribute to the Morningstar Rating for Stocks, we expect roughly 10% of star ratings to change (though subject to change).

