

Morningstar's New Fair Value Uncertainty Rating

We're incorporating a range of plausible fair value outcomes into our research.

At Morningstar, we try to look at the future in a probabilistic way. Practically, that means we spend a lot of time thinking about the range of possible outcomes for the companies that we cover, even though the fair values we publish are, of necessity, point estimates. For example, we use scenario analysis and other tools to estimate a variety of fair values given different combinations of plausible future events.

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Why do we think it's so important to think about a range of possible future fair values, rather than a single most likely fair value? Although it's very easy to think about the future in a linear fashion, in reality events rarely play out in such a neat and orderly manner. Major structural changes in an industry or a company are inherently hard to predict, but thinking about the future probabilistically allows us to at least open our minds to the possibility of outcomes that, though unlikely, can have a huge impact on fair values.

A second reason we believe it's important to think about fair values as points along a distribution of potential outcomes is that it improves the decision-making process. If you think about only a single fair value, you've anchored yourself to a particular outcome and the pathway that leads to it, which means you're likely to discount new information that doesn't support the answer to which you have already mentally committed. However, if you consider a range of possible outcomes, you essentially commit to the possibility that the future could play out in a wide variety of ways, so you're more likely to assess new information in a less-biased fashion.

The upshot is that thinking about what could happen is just as useful--perhaps more so--than thinking simply about what is most likely to happen. This is why we're embedding multipath thinking in our analytical toolkit.

From Business Risk to Fair Value Uncertainty

To better reflect this aspect of our research process, we're replacing our business risk rating with a fair value uncertainty rating. Going forward, we'll rate every stock we cover as having low, medium, high, very high, or extreme uncertainty. In assigning the rating, we'll be asking ourselves, "How tightly can we bound the fair value of this company? With what level of confidence can we estimate its future cash flows?" If you have a background in statistics, you'll recognize that what we'll be doing is estimating the size of a confidence interval for the values of the companies we analyze.

For example, we're big fans of a small biotech company called MannKind MNKD, because we think the inhaled insulin it's developing has a shot at getting approved and getting a meaningful chunk of an extremely large market. But lots of things could happen--the drug may not get approved, it might get delayed, or it might get more or less market share than we anticipate. The company could be worth anywhere from \$2 per share to \$70, depending on how things play out. As a result, it would land squarely in our very high uncertainty bucket.

At the other end of the spectrum, consider McCormick MKC, which dominates the spice and seasoning industry. The spice market neither grows nor shrinks very much over time, and McCormick's strong brands give it pricing power that no competitor can match. There's not a very wide range of plausible outcomes for the fair value, so this firm would get a low uncertainty rating.

This change complements the change in our star rating bands that we implemented earlier in the year. As I wrote then: "The future of any company can follow a number of different paths. In estimating a fair value, our job as analysts is to assess which of those paths have some reasonable likelihood of occurring, assign reasonable probabilities to the various scenarios, and reach an expected fair value for the company's shares.... It's entirely possible that our estimates will be too high--hence the need for a margin of safety. Of course, it's also entirely possible that our estimates will be too low, which is a big reason why we're changing our star rating bands to be more symmetrical, so that our confidence interval is equally wide (or narrow) on both the upside and the downside."

In many cases, our old business risk ratings and new fair value uncertainty ratings won't be much different, but you'll see some changes. For example, many established specialty retailers have relatively low business risk because they typically have strong balance sheets, they're quite profitable, and the risk of permanent capital impairment is not terribly high. However, these businesses are uncertain--products can move in and out of fashion, and operating income fluctuates more than sales because retailers often have high fixed costs in the form of rent and labor. So, some of our more fashion-oriented retailers are moving from average business risk to high uncertainty.

Breaking It Down

To arrive at our fair value uncertainty ratings, we'll be looking at four things, all of which affect the dispersion of possible fair values.

- Our first step is thinking about the likely range of sales for a company. Some businesses--such as grocery stores or consumer product companies--have fairly predictable sales, while many others have revenue lines that can swing around quite a bit.
- The second closely related step is thinking about a company's operating leverage. What percentage of each incremental dollar of sales becomes income? The key to this question will be a company's mix of variable relative to fixed costs.

- We'll also take financial leverage into account, because even a steady business can have an uncertain future for shareholders if it has too much debt. Bondholders always get their money first, after all, and financial leverage can amplify equity returns in both directions.
- And finally, we'll consider whether a specific event in the future, such as a product approval or legal decision, could radically change a company's value.

It's important to note that sales variability and operating leverage work together. A company with sales that don't fluctuate very much, but which has high fixed costs--such as a grocery store--might have the same level of uncertainty as a company with more-variable sales but costs that can ebb and flow with the business, such as a consulting firm.

The Uses of Uncertainty

Our analytical process has contained elements of the new fair value uncertainty rating for some time, given that we have always required a larger margin of safety for companies with a broad range of potential future values. By formalizing this thinking into an explicit rating, we'll be able to consistently communicate whether the range of potential outcomes for a company is large or small. We can't change the fact that the future is uncertain, but we can tell users of our research just how uncertain we think it will be for any given company.

Morningstar Margin of Safety & Star Rating Bands as of April 1, 2008

