Stock Strategist

Fine-Tuning the Morningstar Rating for Stocks

by Pat Dorsey, CFA | 02-04-04 | 12:00 AM

Ever since we launched the Morningstar Rating for stocks in August 2001, our goal has been to help investors find undervalued companies, so we tied the rating to the difference between our estimate of the company's value and its current price in the stock market. Our reasoning was simple: Over time, buying stocks at a discount to their intrinsic values should produce solid investment returns.

(Note, the Morningstar Rating for stocks is a benefit of Premium Membership. If you're not a Premium Member, sign up for a free 14-day trial.)

Improving the Stars

Starting today, we're improving the star rating by simplifying and refining the way we assign margins of safety. We think these changes will result in a rating that's easier to use and understand, and which delivers better investment results. Here's a summary of the changes:

1. More transparent margins of safety. We now tell you exactly where the 5-star and 1-star cutoffs are for each stock.
2. Simplifying how we assign margins of safety.
3. Fewer stock-rating changes.

These changes result in slightly more 5-star stocks and fewer 1-star stocks. The basic underpinnings and philosophy behind the star rating will remain the same: We estimate intrinsic values using discounted cash flow analysis, and the required margin of safety gets larger as the quality of the company decreases.

The details of the change are as follows:

1. We'll be publishing "consider buying" and "consider selling" prices on each Analyst Report, based on the price at which a stock would hit 5 stars or 1 star. We've been doing this in our monthly publication *Morningstar StockInvestor* for some time, and readers tell us they love it.

2. The margin of safety that we demand before giving a stock 5 stars will be determined by our new, modified business risk rating. Before, margin of safety was a function of both the business risk rating and the economic moat rating. Now the economic moat rating will be a factor in the business risk rating itself. Our analysts assign stocks to one of three business risk ratings. We make it tougher for stocks with above-average business risk ratings to earn 5 stars.

Also, we're defining each star-rating level in terms of a particular expected return. Under our new system, 3-star stocks are those that should offer a "fair return," one that compensates for the riskiness of the stock. Three-star stocks should offer investors a return that's roughly comparable to the stock's cost of equity. (The cost of equity is often called a "required return" because it represents the return an investor requires for taking on the risk of owning the stock.)

Five-star stocks, of course, should offer an investor a return that's well above the company's cost of equity, and high-risk 5-star stocks should offer a better expected return than low-risk 5-star stocks. By defining our margins of safety in terms of expected annual return over three years, we can ensure that, on average, this is always the case.

The chart below shows the expected three-year annualized returns that correspond to each star rating.

Three-Year Annualized Expected Returns (%) by Star Rating and Risk

Business Risk	5 Stars	4 Stars	3 Stars	2 Stars	1 Star
Below Average	> 15.5	15.5 - 13.0	13.0 - 6.0	6.0 - 0.0	< 0.0
Average	> 20.5	20.5 - 15.0	15.0 - 6.0	6.0 - 2.5	< 2.5
Above Average	> 30.5	30.5 - 18.0	18.0 - 7.0	7.0 - 5.5	< 5.5

So, on average, we expect 5-star stocks with below-average risk to return at least 15.5% annualized over the next three years. If it drops to 3 stars, we expect it to return between 6% and 13% annualized--a fair return. And if it drops to 1 star, we expect it to lose money for investors over the next three years.

Now that we're grounding our margins of safety in expected returns, the size of those margins of safety will change somewhat from those we've had in place. The following table shows approximately how a discount (in parentheses) or a premium to a stock's fair value estimate will now affect its star rating based on its business risk rating.

Margins of Safety (%)

Business Risk	5 Stars	4 Stars	3 Stars	2 Stars	1 Star
Below Average	(>15)	(15) - (9)	(9) - 10	10 - 31	> 31
Average	(>23)	(23) - (11)	(11) - 13	13 - 25	> 25
Above Average	(>36)	(36) - (14)	(14) to 16	16 - 21	> 21

These are roughly in line with the values we had been using, with the major exception being that 36% is now our maximum required margin of safety--previously, we required 50% and 60% discounts for some stocks. Also, since the majority of our coverage universe falls into the "average" business risk category, most stocks will require a smaller margin of safety than they had previously.

3. Finally, we're introducing a small buffer around the cutoff between each rating, to reduce the number of rating changes produced by random market "noise." If a $50 stock moves up and down by $0.25 each day over a few days, the buffer will prevent the star rating from changing each day based on this insignificant change. In studying our star rating, we've found that more than 50% of the star-rating changes are due to these tiny fluctuations.

The Bottom Line

What does all this mean for users of our star ratings? First and foremost, it means a simpler system that's easier to understand. Second, star ratings will be in line with the expected return of the stocks we rate. Third, we think the changes will result in better investment recommendations. We've calculated hypothetical star ratings over the past two and a half years using these changes, and they've produced somewhat better investment performance than the previous star rating methodology. Of course, you can't draw conclusive results from only 30 months of data, but we're encouraged by the back-testing that we've performed.

If a stock that you own has gained or lost a star as a result of these improvements to the star rating, please don't be alarmed. Our fundamental opinion of the firm's value hasn't changed one iota. The only thing that's changed is the discount to fair value at which we'd recommend purchase, and we think our new system for calculating these discounts is an improvement over the old one.

We're always looking for ways to improve the Morningstar Rating for stocks, and I hope the changes that we're implementing today make it easier and more profitable for you to use.

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