

Response to Morningstar's Second Set of Comments

We would like to again thank Morningstar for their active engagement and conversations with us on this important topic. We remain dedicated to helping further understand the increasingly complicated investment and portfolio choice decisions that investors must face, and the heightened importance of information intermediaries in this process.

Morningstar's full second set of comments on our analysis are contained [here](#). The main thrust of their comments are highlighted in the 3 points at the response's outset. We repeat each below, and what evidence we've found in the data regarding each point:

- 1. Credit-quality differences from self-reported data almost always stemmed from bonds that our calculation engine didn't recognize or couldn't associate with a credit rating. The authors assumed these "Not Rated" bonds were low quality, but this often isn't the case, as we show using an example.*

As we show in the [paper](#), and in our prior response, this is not the case. In particular, from Appendix F of the paper, even kicking out all funds that have any non-rated bonds, all of the results and dynamics remain large and significant (in fact *larger* in point-estimate in some cases). In addition, Not-Rated bonds do empirically look on-average incredibly similar to Junk Bonds, and not at all like the safer bonds they are often claimed to be, as we show in Table 9 in the paper.

Moreover, Morningstar's chosen example of the Fidelity Mortgage Securities Fund is incorrect. We actually correctly classify *all* government-linked securities in our sample. As explained on pg. 13 of our paper:

"Additionally, government backed securities such as Agency Pass-thru's, Agency CMO's, and Agency ARMs are automatically designated as AAA-rated assets. We also search for treasuries and potentially missed government backed securities by searching keywords such as "FNMA", "U.S. Treasuries", "REFCORP", etc. – assigning them each AAA-rating."

- 2. The authors misunderstood how we classify funds by mistaking the fixed-income Morningstar Style Box classifications for Morningstar Category classifications. We use the latter to peer-group, rank, and assign ratings to funds, while the authors' sole focus was on the fixed-income style-box classifications.*

This is incorrect. As seen in the [paper](#) (and also shown in the prior response), all specifications include Morningstar Official Fund Category fixed effects. From these tests, comparing within categories, all of our results are strong and significant. Which is to say: Misclassified funds receive significantly more stars than peer-group funds within Morningstar Official Fund Category.

Second, to be clear, throughout the paper we often include additional risk controls in order to better compare funds against their peers as measured at a risk-peer level, as well. Thus, in many specifications we include both Official Fund Category fixed effects, along with other risk controls including fixed effects to address the risk style-box.

3. Notwithstanding these other issues, we found no statistically significant relationship between the supposedly “misclassified” funds’ performance and ratings that we assign to those funds, with one illustration from that panel of our analysis shown immediately below.

First, as stated in their response, we were happy to see that Morningstar replicated our analysis:

“To that end, we were able to largely reproduce the authors’ multivariate analysis of the binary “misclassified” dummy variable they defined and various ratings metrics.” (pg. 18 of Morningstar’s Comments)

Then, Morningstar attempted to challenge this analysis. In doing so, they implemented an incorrect statistical model. Specifically, Morningstar fully saturated their specification by including Time x Fund ID fixed effects. In other words, they utilized every degree of freedom by including a separate fixed effect for every fund during every time period (we’re not exactly sure how the equation was estimable). If separate fixed effects are included for every observation, no variation of any kind will be left over to be explained by other independent variables. Consistent with this, Morningstar curiously dropped the R^2 in the model fully saturated with fixed effects, likely because the R^2 was essentially equal to 1. The only remaining variation would essentially be data errors, or odd cases in which the same fund in the same quarter had two different classifications. We’re not sure what this proves, other than that the statistical procedure itself is misguided.

Lastly, in a bizarre and surprising statement about the data used in the study, Morningstar claims:

This analysis builds on our efforts to reproduce the authors' findings. We were reluctant to take the step of reconstructing the authors' study, as we had hoped to obtain the authors' data in order to assess exactly what they were seeing. However, the authors declined our request.

Let's be completely clear here – this is Morningstar's data(!). We are using Morningstar's data (from the Morningstar Direct product), along with Morningstar's published formulas for calculating all of the weightings and classifications in the paper. So Morningstar is essentially asking for us to send their data back to them?

Moreover, in conversations with Morningstar, they asked for the filter of funds we had used in the analysis, to which we happily told them we would share, and sent it to them the next day. And again, perhaps most importantly, this does not appear to be an important issue for the findings as they did replicate our main analysis.

In sum, as has been true since the onset of the project, we truly do hope that the conversations between Morningstar and ourselves will bring to light the central charge of information intermediaries, and the increasingly important role they play in modern markets.

Very respectfully and sincerely yours,
Huaizhi, Lauren, and Umit