All the below variables were chosen as independent variables used to predict the rating (rt\_5) the dependent variable.

Reasons for choosing the variables.

* Operating margin: This measures a company's profitability and can be an indicator of its ability to pay back bondholders.
* Long-term debt and Total debt: These variables measure a company's leverage and can be important indicators of its ability to meet its debt obligations.
* Size quantile: The size of a company can be a factor in determining its bond rating, with larger companies generally receiving higher ratings.
* Systematic Risk (Beta): This measures a company's exposure to market risk and can be an important factor in determining its bond rating.
* Market-to-Book ratio: This measures the relationship between a company's market value and its book value and can be an indicator of market sentiment towards the company.
* Retained Earnings: This measures a company's profitability and can be an indicator of its ability to generate cash flow to service its debt.
* Tangibility: This measures the proportion of a company's assets that are tangible, such as property and equipment, and can be an indicator of its ability to generate collateral to secure its debt.

Variables such as Idiosyncratic Risk, Dividend payer, R&D, CapEx, and Cash Balances were not chosen to predict as they are more company specific than industry specific.