Return predictability of international corporate bonds

Keywords: Empirical Asset Pricing, Data Science, Statistical Analysis

Project description

While return predictability has long been a controversial field, literature has documented many predictors in the past decades. The first goal of this IPD is to build up an international, extensive corporate bond and stock linked database from Bloomberg for further research. To this end, you will have to develop, test, and apply a code for automated data extraction using an appropriate language, and you need to use the identifier to match the bond and stock data. Ideally, the code should be flexible enough to be used for data updates and/or further data extensions. The second goal of this IPD is to build your own return prediction model (can be classic regression or machine learning/deep learning). In this part, you will use equity predictors that have been identified in previous work to predict future bond returns. As bonds and stocks can be seen as derivatives on the same underlying firm value (Merton, 1974), one may speculate that equity predictors also predict bond returns. Upon completion of this project, you will acquire substantial knowledge about capital market databases, fixed income research, empirical data analysis, and prediction modelling in general. Among others, these skills are of high practical relevance for jobs in Investment Banking, Asset Management, and Fintech.

What we are looking for

- Strong analytical and project management skills
- Determination and passion for your areas of expertise
- IT skills required for the IDP
- Interest to learn something about finance, in particular asset pricing, asset management, fixed income.
- 1 or 2 persons

What we offer

- Knowledge in quantitative finance, corporate finance and corporate governance
- Kick-off session including introduction to relevant finance and/or business topics
- Experience with IDPs
- Open dialogue and support
- Access to prime capital markets databases (Bloomberg, Datastream, Thomson Reuters, etc)
- Potential for publication and/or evaluation of future use cases
- Both single and group projects are possible

Interested?

Please send an e-mail with CV, academic transcript and your preference for this project to zihan.gong@tum.de.

Questions?

In case of any (e.g. topic related) questions, please contact Zihan Gong (zihan.gong@tum.de or call 0713126418-809).