**Project Proposal**

**MF 703-D2**

**Professor Chris Kelliher**

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Dieynaba Awa Ndiaye

Camellia (Qiutong) Ye

Taiga Schwarz

Daniel Babitskiy

Ziyi (Josie) Zhang



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1. **Topic summary**
2. **Topic description**

The purpose of our project is to use factor analysis and behavioral finance to construct trading strategies in order to help with market decisions on the timing to sell or buy stocks.

1. **Types of factors**

Factors like interest rate, volatility, exchange rates and prices will be considered.

1. **Model**

For the stock selection, we will use the Piotroski F-Score. This method creates metrics to score stocks based on the strength of a company’s financial position.

1. **Project Design**

Python will be used as the programming language.

1. **References**

* Piotroski F-Score

It creates metrics to score stocks based on the strength of a company’s financial position. We can use Piotroski’s method to screen stocks based on historical financial performance.

<https://www.chicagobooth.edu/~/media/FE874EE65F624AAEBD0166B1974FD74D.pdf>

* How to Construct a Stock Selection Strategy: Multi-Factor Analysis

<https://link.springer.com/content/pdf/10.1007%2F978-3-030-47202-3.pdf>

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Stock Selection Strategy can be made by using Market Returns and Security Returns considering a major index in each market.

* A common factor analysis for the US and the German stock markets during overlapping trading hours

<https://www.sciencedirect.com/science/article/pii/S1042443107000376>