MF803 Proposal

Group members:

**Project Summary**

The Black-Litterman Model, created by Fischer Black and Robert Litterman, is a sophisticated  
portfolio construction method that overcomes the problem of unintuitive, highly-concentrated  
portfolios, input-sensitivity, and estimation error maximization. The Black-Litterman model  
uses a Bayesian approach to combine the subjective views of an investor regarding the expected  
returns of one or more assets with the market equilibrium vector of expected returns (the prior  
distribution) to form a new, mixed estimate of expected returns.

we use predicted views from machine learning classifiers as input to all the dynamic Black-Litterman portfolios. We evaluate the out-of-sample performance of the following  
dynamic Black-Litterman portfolios for different levels of risk aversion and various estimates  
of Covariance matrix: the implied BL portfolio with reverse optimization; the SR-BL portfolio  
with maximal Sharpe ratio; the MVaR-BL portfolio with maximal reward-to-VaR ratio; the  
MCVaR-BL portfolio with maximal reward-to-CVaR ratio.

**Data Resource**

**Theoretical Framework**

**Reference**