

Executive Summary

Machine learning techniques continue to provide significant improvements in various fields, often overcoming the limitations of previous models. In finance, traditional methods as portfolio sorts and Fama-MacBeth regressions are afflicted by the curse of dimensionality. To obtain reliable cross-sectional forecast when the input size is large, it has been proposed to apply a data-driven approach. This thesis focuses on analysing the suggested approach when it is applied to momentum effect. The strategy built on the improved forecast outperforms the traditional momentum factor and overcomes problems as momentum crashes. We analyse the machine learning model with the objective of understanding the underlying dynamics. Finally, we show how strategy performance is impacted by factors as hyper-parameters, features and underlying model.