Executive Summary

What is the difference between individual and institutional investors in the financial markets? Does institutionals' positioning data matter for future bond returns? This thesis will address those questions and the interplay between positioning data of the main U.S. treasury securities[1] and their future returns will be examined. The dataset used for the computation is published weekly by the Commodity Futures Trading Commission (Commitments of Traders - CFTC, n.d.[2]) and it separates traders into three groups: "Commercials", who use the derivatives markets primarily to hedge business risk, "Non-commercials", who use the derivatives market to speculate, and "Non-reportables", as traders holding positions below the CFTC's reporting threshold (i.e., individuals). By implementing a one-factor ARIMAX forecasting model, the analysis of this thesis adds to the literature more empirical evidence on the effectiveness of the CFTC report to predict future bond returns.

First, the dataset was divided into time frames of one, five and ten years, in order to handle more efficiently the stationarity of the measurements. Using the price evolution as exogenous variable, several ARIMAX forecasting plots were build, displaying the long and short positions of the three investor groups. The one-year predictions of the ARIMAX models were then tested with the yearly actual values of each dataset created.

The empirical results of the study suggest that there is no statistically significant predictive power contained the positioning data published by the CFTC report, due to the high RSME value of the models and the wide confidence intervals displayed. Two main reasons can be interpreted behind it, as the temporal lag between the publication and data collection of the CFTC report, along with the division of the data in only three investor groups. Further studies, as done by "Micaletti (2018)" in his paper "Want Smart Beta? Follow the Smart Money: Market and Factor Timing Using Relative Sentiment", could solve these issues by adding more factors to the model and by implementing more sophisticated machine learning methods.

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[1]U.S. 2 Years T-Note, U.S. 5 Years T-Note, U.S. 10 Years T-Note and U.S. 30 Years T- Bond

[2]Commitment of Traders - CFTC. (n.d.). Retrieved 9 September 2022, from https://www.cftc.gov/MarketReports/CommitmentsofTraders/index.htm