

Executive Summary

This thesis focuses on two case studies about information dynamics in financial markets: a replication of Dicke & Hess' (2012) working paper about information content driving risk premium of macroeconomic news on bond and stock markets, and an analysis of Thomson Reuters news and social media data.

Dicke & Hess (2012) published a paper about information content of macroeconomic news and their effects on the bond and stock markets. They analysed the effects of the information content of prescheduled macroeconomic announcements on returns. The empirical results support their hypothesis that the risk premium on stock market is driven primarily by growth related news, while the bond market's risk premium is driven by inflation related news. Their results indicate that a substantial part of the overall risk premium is realized during few (macroeconomic announcement) days.

In our own approach, these results cannot be confirmed. Only the bond market shows a similar characteristic as described by Dicke & Hess (2012). Our outcome does not support Dicke & Hess' results and indicate that their findings may not be able to be applied to different time periods nor for other bond indices.

Furthermore, we examine the reaction of gold and crude oil prices to growth and inflation related announcements. Crude oil and gold returns react stronger to growth related, than inflation related reports. Additionally, the analyses uncover surprisingly high spreads in annualized returns.

Thomson Reuters' data set encompasses news and social media channels. Characteristics of these data sets are described and their interrelation is investigated. Further, we examine the impact of those media channels on market data. Therefore, a daily sentiment index is created and the interaction between sentiment indices and the stock market is investigated. In general, much more positive coverage is observable than negative coverage, contradicting the negativity bias in the media context (even during crisis).

Further, our results show that there are strong relationships between the sentiment indices and the stock market index. We find even higher correlations between the amount of news items arriving per day and the stock market index.

In order to gain further insights into the interrelation between sentiment index and market response, Apple stock is taken as example for an event study. In contrast to the results above, the sentiment approach fails in describing the Apple stock price.