

## Abstract

The thesis investigates volatility and skewness spillover effects among seven world stock indices and WTI oil under the assumption of the presence of heterogeneous investors. The data sample covers the period from January 1990 to July 2016. The questions addressed in the thesis are twofold: firstly, the dependency of the spillover effect for both the moments—volatility and skewness—on different investment horizons is tested. Further, it is measured whether the inclusion of skewness into has an impact on the volatility spillovers. The decomposition to the different investment horizons is performed by the wavelet transformation. Conditional volatility and skewness were estimated by GAS model, which is capable to dynamize static parameters from Skewed  $t$  distribution.

Empirical results suggest significant spillover effects from both volatility and skewness. Another important result is that skewness has a non-significant impact on the volatility spillover effects. Further, it has been found that spillover effects for both the moments are time-scale dependent: the higher investment horizons are associated with higher spillover effects. Additionally, our results support the evidence of the significant impact of the financial crisis in 2008 on the structure of markets. From 2008, there are stronger volatility and skewness spillover effects on the aggregated returns as well as decomposed returns.