

This thesis deals with the application of heterogeneous agent models (HAM) in the area of financial markets. In the first part, we introduce the concept of HAMs, review examples of several earlier models in order to provide the reader with a general picture of applications of HAMs in finance. Subsequently, we move on to describe the original model developed by Brock, Hommes (1998) and continue by describing modifications proposed by Barunik, Vacha and Vosvrda (2009). Next, we move to the analysis of the modified model's behavior, including its ability to simulate stylized facts observed in real financial markets. In the last part of this work, we provide descriptions of our simulation/experimental setups and conclude by summarizing the results of these. We finish this thesis by suggesting possible future research topics regarding the investigated model that might shed more light on its behavior and thus hopefully enhance our understanding of how real financial markets operate.