

In the text of this thesis we deal with the task of valuing financial derivatives. The theory is based on the Douglas theorem and its financial interpretation upon which we state replication theorem. These theorems connect martingale measures and existence of no-arbitrage price of derivative in both discrete and continuous time. Next part discusses trading strategies maximizing expected utility and their impact on existence of martingale measure. In the last chapter there are stated fundamental theorems of asset pricing which sum up main previous results.