Title: Martingale measures and pricing of financial derivatives

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Abstract: The theory written in this work explains basic tools for setting justified price of financial derivatives. Jusified pricing is based on principal of balance, which means, that in advance no side has bigger chance to profit than other. Because of this characteristic, the main pricing tool in the work are martingale measures, which respect the state of balance. From the point of view of martingale measures random processes keep their constant expected value, so we can never expect them to deflect to one side or another. The important part of the work, besides basics of martingales, is Douglas theorem, which answers the question of our ability to theoretically set the justified price of any financial derivative. In the last parts, there are also some manuals and examples how to determine the justified price.

Keywords: martingale, martingale pricing, Douglas theorem, predictable process