Abstract:
According to the theory of financial engineering the valuation of financial instruments takes place in
the risk-neutral pricing framework. In this case, the valuation of financial instruments is made
without taking into account the risk and, as a consequence, the influence of market movements on
options valuation is ignored. In this work, we try to check whether the valuation of call and put is
independent on the condition of the capital market. We analyse investors propensity to buy call
options during the bull market and put options during market downturns. In this study 678 options
series listed on Warsaw Stock Exchange are considered in the period from 2007 to 2018. The results
of the conducted research indicate differences in the valuation of both types of options. Put options
are priced with a higher level of volatility in times of extreme risk, but the valuation of call options
does not depend on situation on the financial market.

Keywords:
implied volatility, option, call, put, pricing

JEL Classification: G13, G10