

This study is concerned with the autoregressive conditional duration model (ACD) and its applications on the data from the Prague Stock exchange. The ACD model is particularly suitable for the analysis of data which arrive at irregular time intervals. We treat the time between events as a stochastic process. We apply the ACD model to model the intervals between the trades with the stock of Komerční Banka at the Prague Stock Exchange in the year 2004. The parameters are estimated by the maximum likelihood method. Further, an extension of the ACD model - the ACD-ACM model - is studied. ACM model is used to model the discrete price changes in the stock prices. The distribution of each price change is considered to be a random variable with distribution conditional on the past price changes and other explanatory variables. The ACD-ACM model is applied to the quote data of the stock of Czech Telecom from the year 2004. The results of the calculations are compared with the results presented by Engle and Russel in their studies from the years 1998 and 2005.