This paper is concerned with change-point detection in parameters of econometric regression models when a training set of data without any change is available. There are presented two well-known sequential tests – CUSUM test for linear regression model and a test based on weighted residuals for an autoregressive time series – including their asymptotical properties under certain conditions. Two asymptotically equivalent variance estimators are compared in a finite sample situation using Monte Carlo simulations. There are also presented and compared critical value approximations using different bootstrapping methods and variance estimators. Finally, the weighted residual test is applied on S&P 500 historical data.