Abstract: A stock market came through a significant development in the Czech Republic; from its artificial beginning, through a fierce decline in listed companies, to a gradual rise in the market capitalization, which was suddenly turned off by a global financial crisis in 2008. The diploma thesis concentrate on a volatility analysis of a stock market in the Czech Republic in years 1994- 2009 including a comparison with a data available from world developed stock markets - namely European region, USA and Japan. The most important and influential events concerning world markets and also a development of Prague Stock Exchange are included in the analysis. Econometric tools includes GARCH model and its most popular derivatives and generalisations i.e. IGARCH, EGARCH and APARCH processes. The thesis is split into two main parts. The first part is devoted to a PSE volatility analysis based only on domestic data series involving GARCH class models estimations, a forecasting abilities comparison and also a structural-break analysis based on the ICSS algorithm including the Inclan-Tiao test and its successors. Next part involves a dynamic analysis based on the DCC MVGARCH model, which describes a change in a volatility spillover effect during the time. It is furthermore supported by the Granger causality estimation, which reveals a real direction of noticed interdependences between PSE and other markets. The result shows a long-lasting unidirectional dependence of PSE on other developed markets. The result of the analysis shows that the stock market in the Czech Republic came through three main phases. The first phase started from its establishment in 1994 and ended in 1998, when an integration with other markets remained very low. Then the market shifted to a intermediate stage lasting to 2004, during this period the market is characterised by a mediocre financial integration. The Czech stock market in a final stage starting in 2004 can be denoted as a developed market, which includes a henceforth rising integration with other developed European stock markets. The goal of the thesis is also to uncover important events, which could affect a development at the Czech stock market. This means that an accession of the Czech Republic into European Union coincides with a shift in a development stage of the Czech stock market and it indicates that EU enlargement was a triggering event that allowed a further development and an increase in a degree of integration of the Prague Stock Exchange.