This masters thesis is based on study of technical analysis of financial markets, i.e. analysis of dependencies between past and present price data, especially when it comes to “supports” and “resistances” or historical price levels where price recently tended to stop and reverse. First of all, summary of the most relevant literature on technical analysis is presented, together with literature on psychology of investing, behavioral finance and market efficiency. Following that, theoretical arguments in favor of possible edge in trading of technical levels are introduced and possible objections are addressed. This theory – in the form of several thousands of unique but similar trading strategies – is then tested on historical data of the most important financial assets. Results are compared to those of conservative buy-and-hold strategy and random trading. We reached the conclusion that trading based on technical price levels brings positive capital gains which are better than those achieved by random trading and buy-and-hold strategy. Parameters of our strategies influence the results in expectable manner more often than not.