

A MULTI-APPROACH ANALYSIS OF MONTHLY RETURNS IN US AND TURKISH STOCK MARKETS

Dr. Osman Gulseven

gulseven@metu.edu.tr

Middle East Technical University, Dept. of Economics, Ankara, TURKEY

Abstract

This study examines the monthly returns in both Turkish and American stock markets to investigate whether the market experiences abnormal returns during some periods of the calendar year. The data used in this research includes 214 observations between January 1996 and September 2014. I apply four different methods to check for the monthly market anomalies. First, I perform a statistical summary analysis on the average returns for each month. Next, I decompose the data into trend plus seasonal components using both multiplicative and additive decomposition models. Third a dummy variable estimation is utilized to test for possible abnormal returns during specific months of the years. Finally, a binary logistic regression is performed on the data to see whether there is a higher possibility of obtaining consistent positive returns. While some months tend to show abnormal returns there is no unanimity in the applied approaches. Therefore, the results on both markets do not suggest any significant evidence to reject the efficient market hypothesis on monthly returns.

Keywords: Market Anomalies, Time Series Decomposition, Dummy Variable, Logistic Model, ARIMA Estimation