Event Study Analysis of Stock Price and

Stock Market Index Data

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Abstract

An event study attempts to measure the valuation effects of an event, such as a merger or earnings announcement, by examining the response of the stock price around the announcement of the event. An event study analysis could determine whether there is an "abnormal" return associated with an unanticipated event.

The main and most popular method to do event study is Microsoft excel. However it is quite complicated to operate for the investors who do not have sufficient financial knowledge. There are some other softwares could do the event study analysis. But most of them are commercial software and investors should pay for that. This project provides a free java application to do the event study analysis on excel workbook by java. Investors only need to set up the parameters and this java application would do the remaining work for you.

In this project, Apache POI API would be applied as the main java library to manipulating the excel workbooks. Because it is a quite young API, there still are some weaknesses. For example, some functions in excel cannot be called by POI. In order to solve this problem, the models of the event study analysis were adjusted to make sure the functions could be recognised by POI.

After three month of working, most functions of the event study analysis are implemented. At the same time, POI becomes more familiar to me. Besides the academic achievements, some other rules have achieved as well. For example, time arrangement is really important to a long project working. A good time arrangement would increase the working efficiency. Vise versa, a bad time arrangement would decrease the working quality.