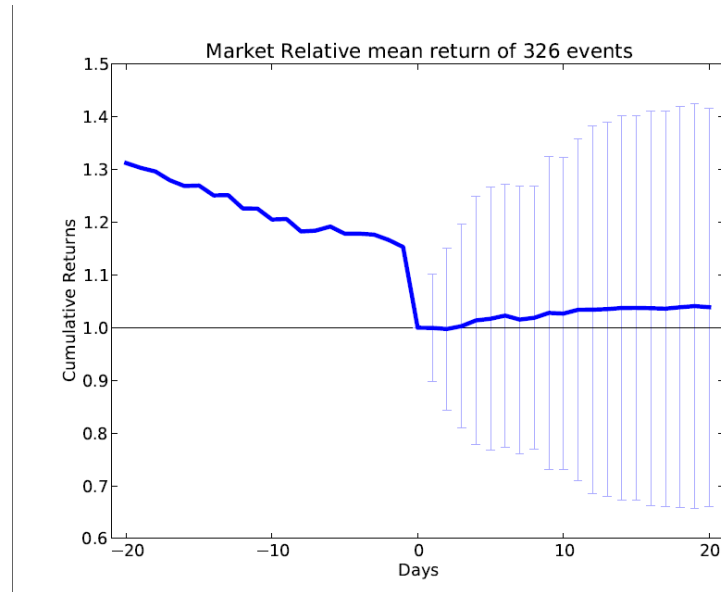Student Name – Aishvarya Krishnan
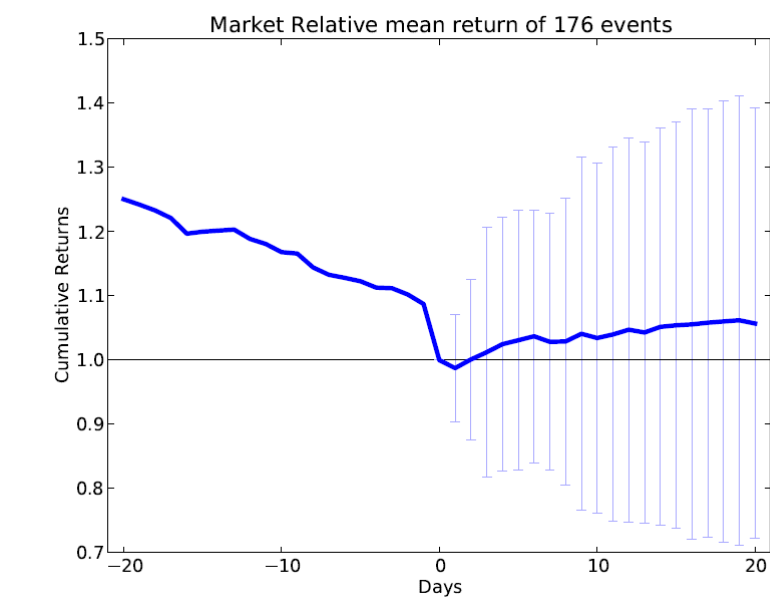
Course Name – CS 7646 Machine Learning for Trading

Project Name - CompInvestI Homework 2

Event chart for 2008 stocks

Market Relative mean return of 326 events

Event chart for 2012 stocks


Market Relative mean return of 176 events

Observations from the charts

The two charts are similar in the way the both stocks are profitable after the price hits $5, as the stocks are most likely underpriced.

About the dissimilarity, in the first chart, we have more occurrences that demonstrates the event, hence the curve is less volatile but also gives lower returns. Whereas, in case of the second chart, there are fewer occurrences of the event, hence we observe more volatility but also greater returns.

My Event Chart 1
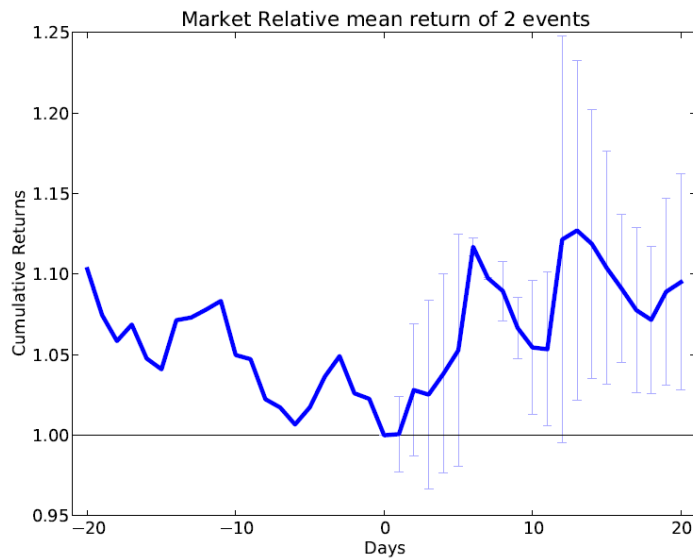
Event Description and Motivation
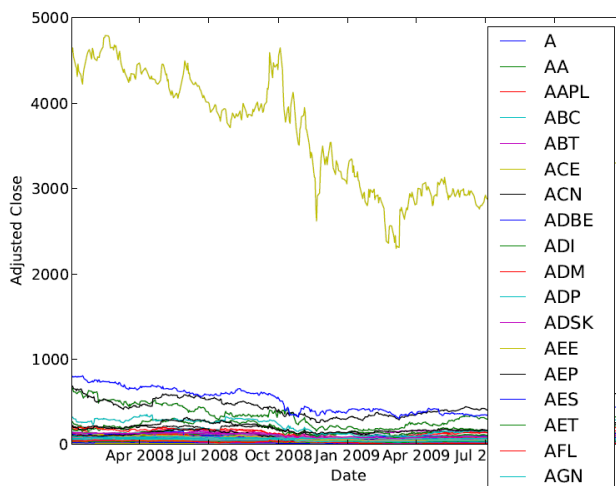
I observed the charts for various stocks and noticed that stock 'ACN' is underpriced at $2500 at a point due to which I believed there could be higher profits later on. Hence, I decided to select the event such that price_yesterday >= $2500 and price_today < $2500.

- Is it possible to make money using your event?

  Yes, as observed from the chart, this event will give huge profits in the range of ~7-8% over just a few days.

- If it is possible, what investing strategy would you use? Think about details of entry (buy) and exit (sell), how many days would you hold?

  I would look at optimizing the allocated price for the stocks such that I would get maximum Sharpe Ratio, for which I would try various possible combinations of the event threshold. Since the chart is very volatile with high returns, I would buy the stocks at an optimal price and hold the stocks for just about a week's time to maximize my profits. I could keep a market limit and sell the stocks if it falls below a certain value to manage risks involved in this strategy.

- Is this a risky strategy?

  Since the chart is highly volatile, though the returns are very high over a very short duration, the risks involved are equally high.

- How much do you expect to make on each trade?

 As observed from the chart, I expect to make about 7-8% profits in about a week's time.

- How many times do you expect to be able to act on this opportunity each year?

  Each year, I would invest once at the maximum as this is a risky investment and requires strategically investing at the right time.

- Is there some way to reduce the risk?

  By making proper observation of the prices and finding optimal event wherein the Sharpe Ratio is maximum we can reduce the risk of suffering a loss.

My Event Chart 2
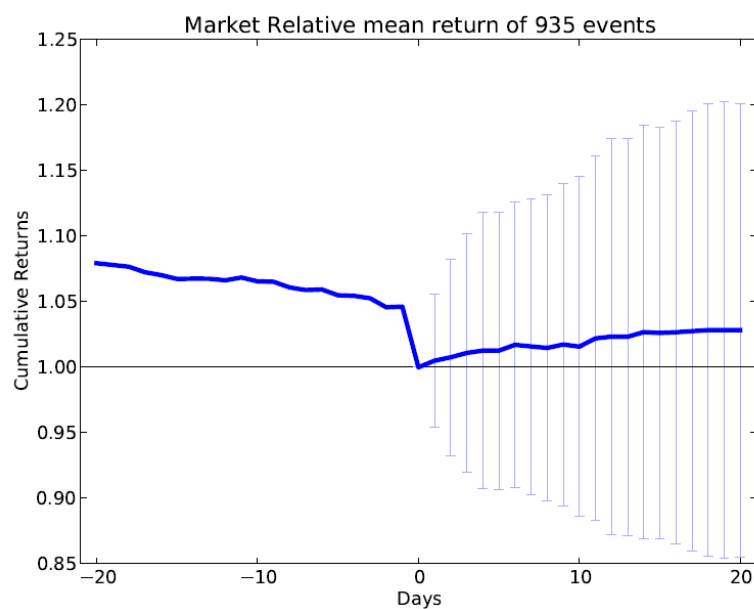
Market Relative mean return of 935 events

Event Description and Motivation

I observed the charts for various stocks and noticed that there are many occurrences of events wherein the price is falling from above $15 to below $15 over a day. Hence, I decided to select the event such that price_yesterday >= $15 and price_today < $15.

▪ Is it possible to make money using your event?

  Yes, as observed from the chart, this event will give steady profits over a period of time.

▪ If it is possible, what investing strategy would you use? Think about details of entry (buy) and exit (sell), how many days would you hold?

Market Relative mean return of 899 events
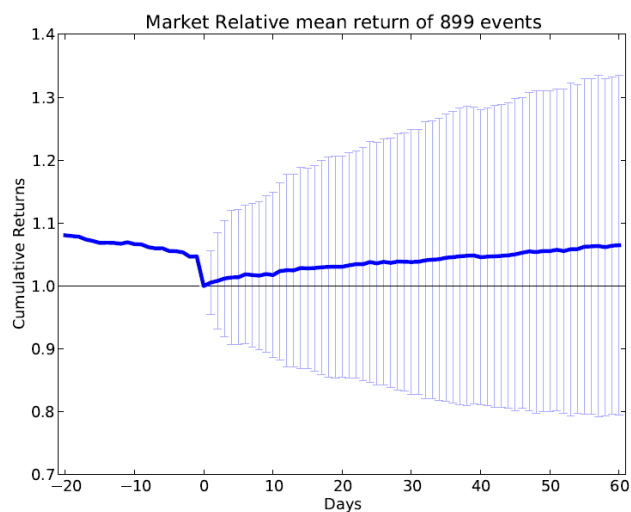
I would look at optimizing the allocated price for the stocks such that I would get maximum Sharpe Ratio, for which I would try various possible combinations of the event threshold. Since the chart is less volatile and gives slow and steady returns, I would buy the stocks at an optimal price and hold the stocks for over a long period of time to maximize my profits. I could keep a market limit and sell the stocks if it falls below a certain value to manage any risks involved in this strategy.

- Is this a risky strategy?

  Since the chart is less volatile, though the returns are slow and steady, the risks involved are very low, making it perfect for a long-term investment.

- How much do you expect to make on each trade?

  As observed from the chart, I expect to make about 5% profits in about a month's time.

- How many times do you expect to be able to act on this opportunity each year?

  Since over a period of two years, there are close to 900 occurrences of this event and it's a safe long-term investment, I would invest about 450 times in a year.

- Is there some way to reduce the risk?

  By making proper observation of the prices and finding optimal event wherein the Sharpe Ratio is maximum we can reduce the risk of suffering a loss.