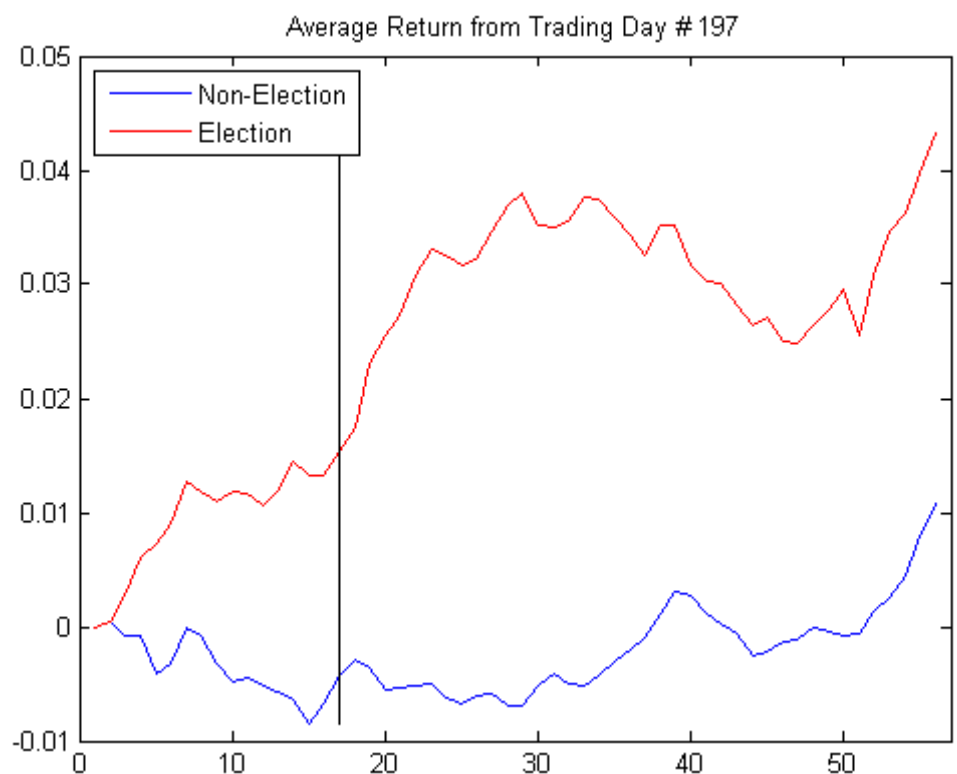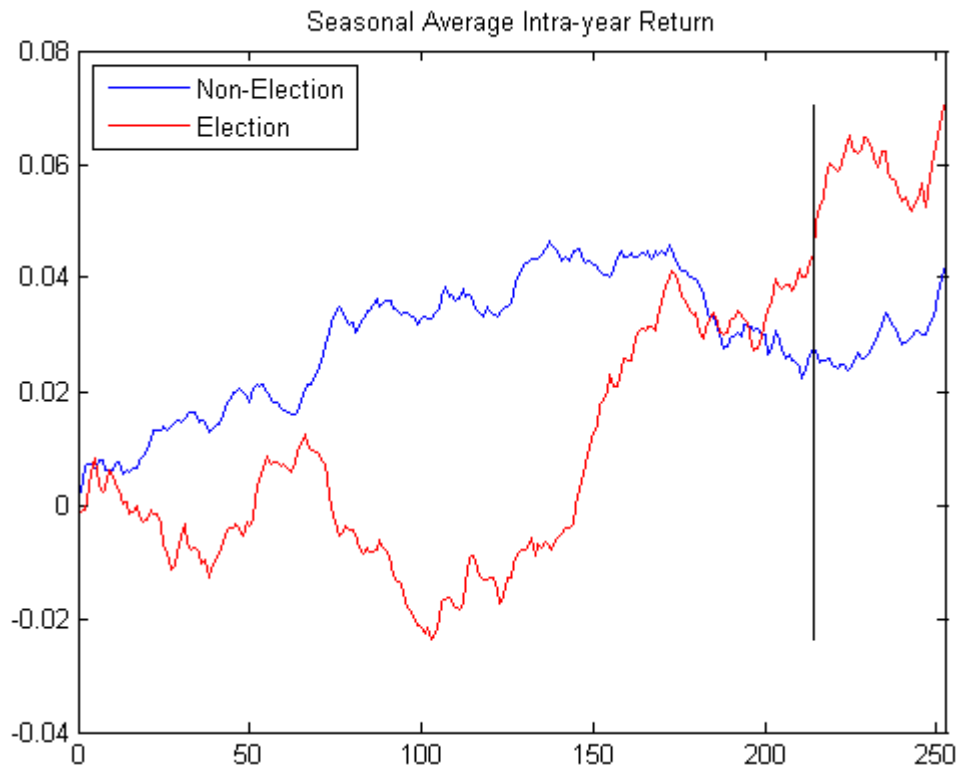*Bradley Okresik*
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It is often said the US Presidential Election has a significant effect on financial markets. This quantitative research explores the relationship between presidential elections and the Dow Jones Industrial Average. The data set employed was daily closing index values from 01/01/1900 through 12/31/2004 which includes 27 presidential elections.
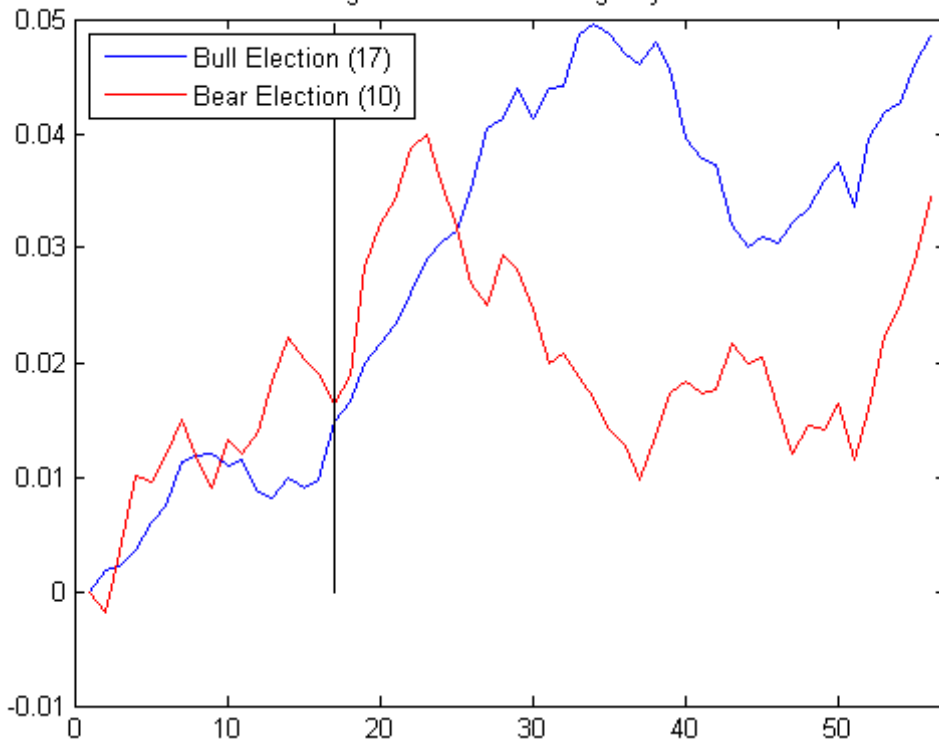
Data has been interpolated across abnormal exchange closings and each year's daily returns have been interpolated to 252 trading days before the mean return is calculated. The graph to the right displays the average return during election and non-election years. The vertical black line notes the location of Election Day which usually occurs on the 214th trading day (November 5th).

Seasonal Average Intra-year Return

The annual seasonality of election years is remarkably different from non-election years. The average election year has traded down during the first half of the year in significant contrast to non-election years. Historically the intra year bottom in election years has occurred on the 103rd trading day (May 29th) and was followed by 6% gains into the 173rd trading day (9/8). The seasonal bearish fall is evident but muted and the end of year rally appears much more pronounced in election years.

The average of all election years depicts evidence of a rally associated with the Election Day event that begins on the 197th trading day (October 11th). The graph to the right shows the average return starting on the 197th day of an election year through the end of the year. The bullish move has lasted 29 trading days and produced a return of 3.8%. The average non-election year resulted in a 0.7% loss during this same time period. An end of year rally during the final week is evident in both cases but has been stronger during election years.

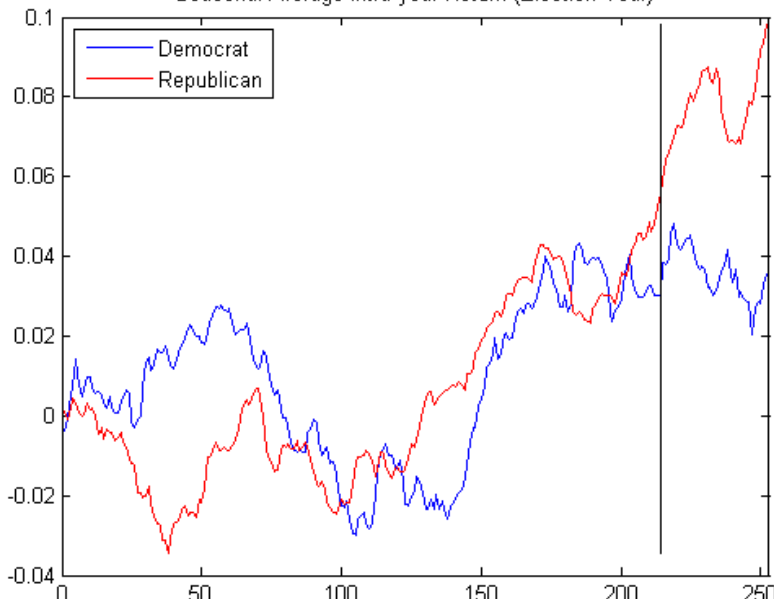Average Return from Trading Day # 197
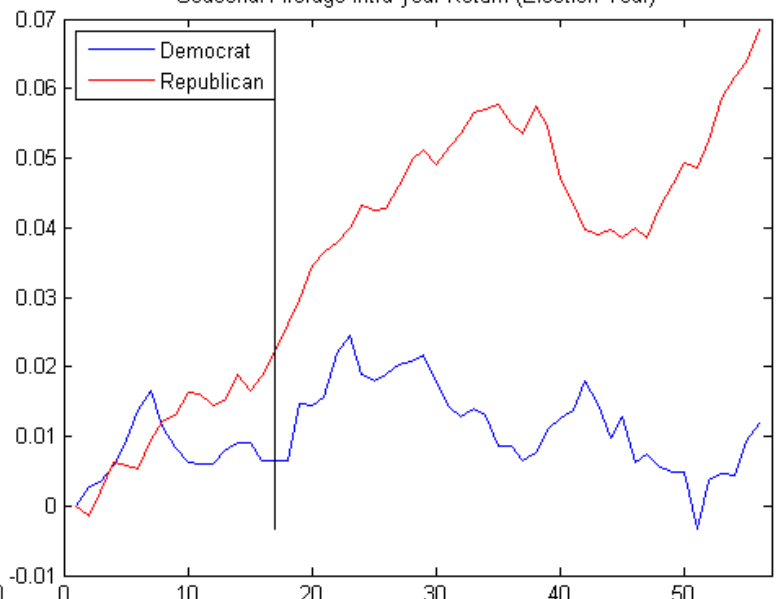
Average Return from Trading Day # 197

Seasonality often exhibits improved performance if it is applied with a simple trend filter. The graph to the left displays the difference between bullish and bearish election years. The bull vs. bear decision was made based on the year-to-date return on the 196th trading day. The election effect was bullish in both cases. If the Dow was positive year-to-date on the 196th trading day (17 cases) the rally lasted 34 trading days and yielded 5% gain. Years that were negative year-to-date (10 cases) had rallies lasting 23 trading days and returning 4%.

There has also been an interesting relationship between the party of the elected president and the November rally. Most of the election year November rallies are due to Republicans winning the election. The graphs below show the average return when a Republican vs. Democrat is elected president. On average Democrat elections result in a 1.8% rally during the 6 trading days following the election. Republican elections result in a 3.5% rally during the 18 trading days following the election. Also note that the end of year rally (last 9 trading days) has been minimal after Democrats were elected president and robust when Republicans won the election.

Seasonal Average Intra-year Return (Election Year)

Seasonal Average Intra-year Return (Election Year)

The first election primaries occur in Iowa & New Hampshire in early January and are considered to be a bellwether for the rest of the election. Wikipedia states the following:

"In the United States, Iowa and New Hampshire have drawn attention every four years because they hold the first caucus and primary election, respectively, and often give a candidate the momentum to win the nomination. This has been witnessed in every Republican primary race since 1968, where the candidate ahead in the opinion polls before the New Hampshire primary has won New Hampshire and gone on to win the Republican Party nomination, with the exception of Pat Buchanan in 1996 and John McCain in 2000. Although not such a foregone conclusion as in the Republican primaries, the Democrat winner of New Hampshire in around 70% of cases since 1964 have also gone on to win the Democrats' nomination."

Perhaps January's Dow performance is also foretelling of the election year returns to come. The graph below displays the average return for bull election years (up year-to-date on January 31st - 14 cases) and bear election years (down year-to-date on January 31st - 13 cases). The bearish January's were followed by a 0% return and the bullish January's produced a 13.8% return during the subsequent 11 months of the election year. It is also interesting that January's performance appears to be well correlated with the strength of the November rally.

Average Return from Trading Day #21

- Bull Election (14)
- Bear Election (13)