8-2018

Do Congressmen really drive CARs?

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In the market today, many trading strategies are employed. Investors everywhere are attempting to craft up the perfect money-making strategy, hoping to make as much profit as possible. My research on this topic has led me to believe that there is no perfect strategy, but many strong ones exist, and it is up to investors to discover and take advantage of such opportunities. While it is true that there are "no free lunches," I would argue that many lunches are getting close to free. In this paper I am trying to discover how to use election season to optimally invest and profit. In many ways, this is a small form of arbitrage that will help to drive markets to be more efficient.

My study focuses on the stock market, particularly the 50 most held stocks by congressmen each year. While it is dynamically changing each year, I believe this portfolio, which is publicly available information, can be effectively analyzed and researched. I look at the elections held every other year, often referred to as the midterm and presidential elections. I am gathering together the data on these stocks around the time of elections and using returns on the stocks to discover if abnormal returns, or returns that are higher than the market average, are present with these stocks. If these stocks do exhibit returns that are significantly above (or below) market averages, then the optimal strategy and timing is clear: buy low and sell high. Not only am I attempting to find out if these stocks are good to invest in, I am also looking to discover the timeline to invest. The market is about timing, and I want to track the optimal timing so that all potential gains are realized.

Another important method I will employ in my study is running a regression model. I will have CARs as the explanatory variable. In my model I will have an array of characteristics for stocks, a variable that shows the ratio of stocks owned by Republicans to Democrats, a dummy

variable for the political power who won the election, and an interaction between the two previous variables.

Literature Review

Before doing anything further with my study, I want to understand better where this fits in the research and literature of today. I am looking to make this relevant and to build off previous work that has already been done. While I found that studies on CARs around presidential elections were few, many papers have been written concerning volatility and its effects surrounding election season. A paper by Bialkowski et al (2008) suggests that volatility is significant if the election is close. This result confirms what is logical: uncertainty around an election will increase how volatile the market is. A paper by Darne and Charles (2014) shows the events that cause volatility in markets, and elections (among many other political events) cause a spike in volatility.

Jones and Banning (2009) study elections and the stock markets using monthly stock market returns. In their paper they suggest that markets don't pay much attention to the elections, thus resulting in minimal deviances from the norm around that time. This paper could provide good evidence to help support what I am doing. If a cumulative abnormal return is found around an election, and the overall market returns are mean reverting, then an arbitrage opportunity exists to take advantage of volatility during elections. If excess positive returns exist, one would short the stock, knowing that it will revert back to lower returns later. The same strategy exists if a stock exhibits negative returns in excess of the market.

Bento Lobo (1999) researched a very interesting topic as he looked at “Jump risk” of stocks around midterm elections. For small and large-cap stocks the jump risk is significant. He also found that small-cap stocks perform better under Democratic administrations compared to Republican. Later I will show how I examined this same idea using a regression model that will capture the relationship between returns and the political party in power.

My results confirm those from prior studies and add new information. I found that there are certainly significant abnormal returns that can be captured around elections. It is clear to me that the market behaves in this way. The unfortunate problem, which is demonstrated in my results and supports the theories that surround market efficiency, is that the market behaves in a random fashion. Some years a certain portfolio strategy will bring about extraordinary results, while other years prove that same strategy to be negligible. Therefore, one must consider randomness in stock prices when developing a strategy on how to trade.

Data

I obtained my data from two sources. The first source I used is from a nonpartisan research group, the Center for Responsive Politics. From their website I was able to obtain yearly data on the portfolios of congressmen, particularly the top 50 held stocks by congress members. The data available from this research group is fairly small, with the oldest data being from 2005. Because of the lack of data, the elections that I will be able to analyze are the 2006-14 midterm and presidential elections. In total there are 5 elections that I obtained data for.

The second source of data is the Wharton Research Data Services (WRDS). From here I was able to obtain all the stock data I needed. Using a built-in program, Eventus, I obtained all

the CARs I wanted for my analysis. It provided me with the results I wanted and helped to digest the loads of information available. Along with Eventus, I obtained data on the stocks for each election day from the Center for Research in Security Prices (CRSP). This service proved to be valuable. The variables of interest that I was able to obtain from CRSP were: Low Bid Price, High Ask Price, Price (at close), Volume traded, Daily Return, and Spread (High Ask minus Low Bid). I found that these variables will prove to be very important in my analysis because they will help to understand the volatility and return patterns in the data.

Along with the variables found from CRSP, I had to introduce some new variables into the data. In my first data set obtained from the Center for Responsive Politics, I had the number of Republicans and Democrats that owned each of the top stocks. Using these numbers, I created a new variable called REP_DEM that measures the ratio of stocks held by each political party. For consistency across the elections I used Republicans divided by Democrats. I also formed a variable for the winner of the election. To match my previous variables, I coded this new variable REP_INTERACTION equal to 1 if the Republicans won the election, 0 if the Democrats won. This dummy variable will be very important when analyzing the effects of political party on the returns. I will use it in my regression and interact it with the REP_DEM. This will help to show the effect that a political party has on the market.

Model

For my model I am using two different approaches. The first approach is to obtain the Cumulative Abnormal Returns on the 50 stocks in the portfolio. The general method for doing this is to run a linear regression model on the stocks, obtain the residuals, and then add up

residuals for a certain number of days to find the returns above the market. This method is a fairly simple way of determining if a stock performs above or below market averages. When the residuals are positive, this implies that the stock performed better than an average stock. Negative residuals can be thought of as stocks that underperform when compared against the market. For simplicity, only statistically significant stocks (those stocks that are well above/below the normal averages) are considered non-zero.

I was able to find the CARs of multiple different periods of time surrounding the elections. I want to analyze different time periods because this will help to understand the optimal investing time. I determined windows of time that are fairly logical and intuitive. The process of obtaining CARs is typically simple using computer software. This process was made even easier by using the service Eventus provided by WRDS. I obtained four different windows of time for my analysis which I believe prove to be important and useful in understanding the election process and how volatility and returns are affected. The first window I want to observe is the pre-election time. I feel that the month preceding elections is often very uncertain. Often there are big swings in the final month that sways which congressmen wins their vote. So for the window I have thirty business days prior up until one day before the election. This captures a lot of information. As elections occur on Tuesday, this window captures information that occurs through the Monday before elections, which is usually very predictive information.

The next window of time is five days prior until the day of the election. This allows for the final week before the election to be seen and captures the results. In most cases, this CAR will be small, unless great uncertainty exists around the election, in which case this could be very volatile.

Another window of interest for me is three days prior through three days after elections. We can begin to see how efficient markets are from this window. In an efficient market, all private and public information are incorporated into prices, so no big changes in volatility should exist after events like an election. It is assumed that the information has already been priced in. This window will show if the market is behaving efficiently or if some private information is not being full incorporated into the market.

My fourth and final time frame I use is from the election time until two business weeks after. This allows the market to absorb any abnormal day around the election and revert back to expected prices if the volatility around an election was just an anomaly.

All of these windows will help to better understand the stocks I am analyzing. With varying time frames, we can see when election information enters the market and how the prices of stocks adjust according to the information shock imposed.

Results/ Analysis

With all the work done on this data, I have my results and they appear to be very interesting. Below I have a table that outlines the CARs of each model (MM, MAR, and SW), and the Equal weighting and Value weighting methods. These models were computed in Eventus. Each of these is very important and displays unique results. In Table 1, Panel A displays the CARs in bold with the standard deviations immediately below each one. Panel B is an annualized version of Panel A, so that the results are comparable on an annual basis. This helps to understand how the strategy would perform if the time frame were one year. It also helps to be able to compare each window of time against another. One can see that in Panel A the

largest results are those of the longest windows of time, which makes sense as there was more time to accumulate abnormal returns. For this reason, I will refer to the annualized results of Panel B for analysis.

The results show mixed things. The most interesting result to me is the window (-3, 3). This time frame demonstrates highly negative returns in all the models. The smallest negative return is over 14%. From this outlook, it may be beneficial to apply a strategy of shorting these stocks leading up to the election. The strategy of shorting consists of borrowing shares of stocks to sell on the market, then repurchasing those stocks at a later time, hopefully at a lower price. This demonstrates the principle of "Buy low, sell high," but instead of buying first the investor sells first. On the idea of short selling, it appears that an equally weighted portfolio would lead to the greatest profits by short selling. By doing so the annualized return on this short-term investment would be around 30%.

The next result that is significant is the (0, 10) window. There exists a stark difference here between the equally weighted and value weighted portfolios. The strategy here is fairly obvious and simple. Go long an equally weighted portfolio of stocks starting on the day of the election, and close the position at the end of ten trading days. The profits are very high once again. Annualized this would pay off the very most out of any strategy outlined in my study. Other notable findings from this is that returns over the (-30, -1) horizon are good, but not significant. The (-5, 0) window is the least volatile out of all the windows of time, therefore suggesting that markets are efficient in the few days prior to elections.

Next I went on to examine each election year, trying to determine if a single election cycle proved to be more volatile than the rest, which could drive the results discussed previously. Once again, I annualized the findings for comparison purposes. These results are found in Table

2, with Panel B being the annualized versions of Panel A. Once again, the CARs returns are bolded, and the standard deviations are shown immediately below each result.

The individual election years presents clear results. The elections are very different, and a lot can be interpreted from this table above. The first major result drawn from the elections is the high volatility from 2008. These returns on cars are very large in both directions. An explanation to this could be that markets in general were very volatile during the recession that occurred around this time. So 2008 is likely not capturing results related to the election, but information about the recession and how stocks large cap stocks, like ones owned by congressmen, performed during that time. The notable pattern from this year is that the longer CARs (-30, 1) and (0, 10) exhibit positive returns while the shorter CARs have highly negative returns. Despite the market volatility and highly significant results, we can see that the stocks owned by congressmen outperformed the market late in 2008 by a large margin. However, this does not imply that these stocks had positive returns in and of themselves, only that they had returns that were better than the average market returns.

The time period of three days prior to three days after election was also very volatile. There is a lot of risk with this window, mostly resulting in loss. From the minor gains in 2010 to massive losses in 2008, we can see that this strategy may not be optimal. The other presidential election in 2012 proved to be minimally volatile. There were no significantly large abnormal returns in either direction.

Regression Model

At this point I evaluated my regression models. I ran simple linear regressions on each of the models and CAR windows, giving me lots of results and data to interpret. Given the large

amounts of analysis, I focused mostly on the REP_INTERACTION variable to see how much of an effect exists when a political party wins an election. For each of the regressions I gathered the t-statistics to measure if the interaction variable has a significant impact on the outcome of a Cumulative Abnormal Return. The summary of the regressions is contained in the tables 3-8.

Only a few of the control variables proved to be significant. The most obvious variable of significance in all of these is returns, which is clearly linked to abnormal returns. This comes as no surprise and was included as a way to control for returns of all stocks, helping us to see if any stock had a particularly abnormal return on it.

The Republican to Democrat ratio is significant for the (-5,5) CAR window in each model at different levels. I found this most interesting that only this window displays sensitivity and significance for political party holding the stock. One can only guess as to the reason why this proved significant for this model.

Abnormal returns did not respond significantly to the different winner of the election. Markets appear to not be overly concerned with the political party that wins an election, but rather if there is uncertainty during an election season. Volatility around elections can prove to be significant during certain years, and this appears to be confirmed here.

Only in the SW model for pre-election windows is there any significant values for the interaction variable. This suggests that, in general, there exists no strong relationship between the winner of an election and abnormal returns surrounding the stocks owned by congressmen of that winning party. This is a good result to find. I believe it suggests that markets do not respond solely to the winner of an election, similar to the findings of Jones and Banning's paper referenced earlier.

Conclusion

There are various conclusions that may be drawn from these data. I would suggest a few different key investing strategies that could be used around the time of midterm and presidential elections. The first major strategy would be to short the portfolio containing the 50 most held stocks of congressmen three days prior to the election and to close out the position three days after the election. In all the various methods I looked at this was shown to be profitable and worth the effort. Even after transaction costs this would be good.

I find that the markets are not sensitive to midterm and presidential elections. There exists some high volatility around competitive elections as Bialkowski, as well as Darne and Charles, suggest. From my study on the topic I am lead to conclude that the markets behave similarly around elections as they do at any other time. There is randomness and unpredictability in the market, and only in some few cases can people really take advantage of market inefficiencies that exist.

Overall, I was able to learn more about how election seasons and the stock markets interact. It is often difficult to come up with a solid strategy. The markets are never predictable, and one can never say with certainty what will happen next. So all of the strategies and data can only be used as a guide to give an estimate of what could happen given the historical observations. The question of how congressmen and their stock portfolios perform around elections is much clearer now. They behave just like the rest of the market, something reassuring and logical to find. Congressmen therefore do not drive CARs.

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Table 1.

Analysis of CARs by model.

The table displays all the Cumulative Abnormal Returns for three different models (Market Model, Market Adjusted Returns, and Scholes-Williams). For each model there are two scenarios. First, a portfolio was comprised by equally weighting each stock in the portfolio and testing the total returns in excess of the market by obtaining residual values from a regression model and summing up the residuals. Next each stock in the portfolio is weighted based on their market cap, thus giving us value weighted stocks. Panel A shows the results of each window, while Panel B is the annualized version of Panel A, allowing us to analyze these models in terms of yearly returns.

	CARs					
Panel A.	Equal Weighted			Value Weighted		
CARs	MM	MAR	SW	MM	MAR	SW
(-30,-1)	**0.0116**	**0.0126**	**0.0054**	**0.0080**	**0.0148**	**0.0084**
	0.107	0.096	0.110	0.099	0.094	0.109
(-5,0)	**-0.0009**	**-0.0002**	**0.0050**	**-0.0004**	**-0.0031**	**-0.0007**
	0.050	0.042	0.056	0.045	0.043	0.055
(-3, 3)	**-0.0076**	**-0.0084**	**-0.0059**	**-0.0041**	**-0.0046**	**-0.0043**
	0.044	0.040	0.045	0.037	0.036	0.038
(0, 10)	**0.0158**	**0.0158**	**0.0098**	**-0.0001**	**0.0026**	**-0.0007**
	0.057	0.064	0.052	0.051	0.058	0.049
Panel B.	Annualized Returns					
(-30,-1)	**9.16%**	**9.94%**	**4.23%**	**6.29%**	**11.64%**	**6.62%**
	0.299	0.270	0.309	0.278	0.264	0.307
(-5,0)	**-3.69%**	**-0.80%**	**21.00%**	**-1.84%**	**-12.85%**	**-2.86%**
	0.139	0.119	0.157	0.127	0.120	0.155
(-3, 3)	**-27.48%**	**-30.30%**	**-21.34%**	**-14.65%**	**-16.72%**	**-15.57%**
	0.125	0.113	0.125	0.105	0.102	0.106
(0, 10)	**36.26%**	**36.08%**	**22.51%**	**-0.18%**	**5.99%**	**-1.55%**
	0.160	0.179	0.146	0.144	0.164	0.137

Table 2.

Analysis of CARs by year.

The table displays all the Cumulative Abnormal Returns for five different midterm and presidential elections. Each year is displayed, and the returns are shown in bold, along with standard deviations directly below each observation. The portfolios are comprised of the 50 most held stocks by congressmen and a regression model was run and residuals were obtained and summed up. Panel A shows the results of each window, while Panel B is the annualized version of Panel A, allowing us to analyze these models in terms of yearly returns.

Panel A. Returns	CARs				
CARs	2006	2008	2010	2012	2014
(-30,-1)	**-0.0078**	**0.0730**	**-0.0085**	**-0.0138**	**0.0069**
	0.060	0.176	0.083	0.060	0.051
(-5,0)	**0.0010**	**-0.0073**	**0.0005**	**-0.0031**	**0.0083**
	0.019	0.093	0.030	0.035	0.027
(-3, 3)	**-0.0101**	**-0.0262**	**0.0007**	**-0.0041**	**0.0095**
	0.031	0.054	0.036	0.031	0.035
(0, 10)	**-0.0055**	**0.0353**	**-0.0049**	**0.0015**	**0.0087**
	0.030	0.091	0.049	0.042	0.034
Panel B. Annualized Returns					
(-30,-1)	**-6.13%**	**57.47%**	**-6.71%**	**-10.86%**	**5.40%**
	0.169	0.495	0.233	0.167	0.143
(-5,0)	**4.10%**	**-30.76%**	**1.89%**	**-12.99%**	**35.03%**
	0.125	0.601	0.193	0.226	0.177
(-3, 3)	**-36.30%**	**-94.18%**	**2.55%**	**-14.62%**	**34.10%**
	0.183	0.326	0.214	0.186	0.213
(0, 10)	**-12.60%**	**80.82%**	**-11.17%**	**3.37%**	**20.04%**
	0.144	0.435	0.237	0.201	0.161

Table 3. **Market Model Equally Weighted Regression.**

This table uses the following regression to estimate variables of interest related to Cumulative Abnormal Returns:
$CAR(a, b)_i = \beta_1 (BIDLO)_i + \beta_2 (ASKHI)_i + \beta_3 (PRC)_i + \beta_4 (VOL)_i + \beta_5 (RET)_i + \beta_6(REP\_DEM)_i + \beta_8 (REP\_WIN)_i + \beta_9 (REP\_INTERACTION)_i + \varepsilon_i$

The dependent variable is the Cumulative Abnormal Returns for a given window of time for stock i. This is then summed up for all stocks in the portfolio and reported. The variables used within the regression are the following. BIDLO is the low bid price on a given day for stock i. ASKHI is the highest ask price for stock i on a given day. PRC is the close price for each day on each stock. RET gives the return for a stock based on the performance from the prior day. Rep_dem is a ratio that takes the number of Republican congressmen that own the stock divided by the number of Democrats that own the stock. Rep_win is a dummy variable that takes on the value of one if Republicans won the election (net change in congressmen was positive for Republicans), and zero if Democrats won the election. Rep_int is the interaction between rep_dem and rep_win, capturing the effects of how those two variables interact. *, **, and *** denote statistical significance levels of 0.10, 0.05, 0.01, respectively.

MM Equal Weighted				
CAR Window	(-30,1)	(-5,5)	(-3,3)	(0,10)
Constant	**-0.01809**	**0.01576**	**-0.02191***	**0.0391****
	-0.62	1.1	-1.8	2.5
BIDLO	**0.00093*****	**-0.00010**	**0.00015**	**-0.00001**
	3.05	-0.69	1.21	-0.06
ASKHI	**0.0005*****	**-0.00003**	**0.00008**	**0.00009**
	3.46	-0.48	1.26	1.16
PRC	**-0.00144*****	**0.00014**	**-0.00023**	**-0.00008**
	-3.27	0.64	-1.26	-0.35
RET	**-0.12104**	**0.10653**	**-0.02103**	**-0.04657**
	-0.46	0.82	-0.19	-0.33
rep_dem	**0.01540**	**-0.01398***	**0.00147**	**-0.01091**
	0.87	-1.61	0.2	-1.15
rep_win	**0.01314**	**-0.00351**	**0.02983***	**-0.02792**
	0.34	-0.19	1.88	-1.37
rep_int	**-0.01265**	**0.00952**	**-0.00126**	**0.01091**
	-0.58	0.89	-0.14	0.94

Table 4. **Market Model Value Weighted Regression.**

This table uses the following regression to estimate variables of interest related to Cumulative Abnormal Returns:
$CAR(a, b)_i = \beta_1 (BIDLO)_i + \beta_2 (ASKHI)_i + \beta_3 (PRC)_i + \beta_4 (VOL)_i + \beta_5 (RET)_i + \beta_6(REP\_DEM)_i + \beta_8 (REP\_WIN)_i + \beta_9 (REP\_INTERACTION)_i + \varepsilon_i$

The dependent variable is the Cumulative Abnormal Returns for a given window of time for stock i. This is then summed up for all stocks in the portfolio and reported. The variables used within the regression are the following. BIDLO is the low bid price on a given day for stock i. ASKHI is the highest ask price for stock i on a given day. PRC is the close price for each day on each stock. RET gives the return for a stock based on the performance from the prior day. Rep_dem is a ratio that takes the number of Republican congressmen that own the stock divided by the number of Democrats that own the stock. Rep_win is a dummy variable that takes on the value of one if Republicans won the election (net change in congressmen was positive for Republicans), and zero if Democrats won the election. Rep_int is the interaction between rep_dem and rep_win, capturing the effects of how those two variables interact. *, **, and *** denote statistical significance levels of 0.10, 0.05, 0.01, respectively.

MM Value Weighted				
CAR Window	(-30,1)	(-5,5)	(-3,3)	(0,10)
Constant	**-0.03130**	**0.02338***	**0.00390**	**-0.00660**
	-1.14	1.78	0.36	-0.45
BIDLO	**0.00086**	**-0.00006**	**0.000217***	**-0.00012**
	3	-0.46	1.91	-0.8
ASKHI	**0.000447*** **	**0.00000**	**0.000121****	**0.00001**
	3.24	0.03	2.22	0.07
PRC	**-0.0013*****	**0.00006**	**-0.000337****	**0.00012**
	-3.16	0.31	-2.07	0.53
RET	**-0.12179**	**0.10357**	**-0.02907**	**-0.03877**
	-0.49	0.87	-0.3	-0.29
rep_dem	**0.02087**	**-0.01702****	**-0.00790**	**0.00513**
	1.25	-2.13	-1.2	0.57
rep_win	**0.02496**	**-0.01299**	**-0.00060**	**0.01039**
	0.7	-0.76	-0.04	0.54
rep_int	**-0.01867**	**0.01211**	**0.00704**	**-0.00636**
	-0.91	1.24	0.87	-0.58

Table 5. **Market Adjusted Return Equally Weighted Regression**
This table uses the following regression to estimate variables of interest related to Cumulative Abnormal Returns:
$CAR(a, b)_i = \beta_1 (BIDLO)_i + \beta_2 (ASKHI)_i + \beta_3 (PRC)_i + \beta_4 (VOL)_i + \beta_5 (RET)_i + \beta_6(REP\_DEM)_i + \beta_8 (REP\_WIN)_i + \beta_9 (REP\_INTERACTION)_i + \varepsilon_i$

The dependent variable is the Cumulative Abnormal Returns for a given window of time for stock i. This is then summed up for all stocks in the portfolio and reported. The variables used within the regression are the following. BIDLO is the low bid price on a given day for stock i. ASKHI is the highest ask price for stock i on a given day. PRC is the close price for each day on each stock. RET gives the return for a stock based on the performance from the prior day. Rep_dem is a ratio that takes the number of Republican congressmen that own the stock divided by the number of Democrats that own the stock. Rep_win is a dummy variable that takes on the value of one if Republicans won the election (net change in congressmen was positive for Republicans), and zero if Democrats won the election. Rep_int is the interaction between rep_dem and rep_win, capturing the effects of how those two variables interact. *, **, and *** denote statistical significance levels of 0.10, 0.05, 0.01, respectively.

MAR Equal Weighted				
CAR Window	(-30,1)	(-5,5)	(-3,3)	(0,10)
Constant	**0.00378**	**0.01852**	**-0.00618**	**0.06903*** **
	0.14	1.5	-0.59	3.73
BIDLO	**0.00006**	**0.00008**	**0.00004**	**-0.00009**
	0.21	0.62	0.41	-0.46
ASKHI	**0.00011**	**0.00000**	**0.00001**	**-0.00010**
	0.79	0.06	0.27	-1.04
PRC	**-0.00017**	**-0.00008**	**-0.00006**	**0.00019**
	-0.41	-0.45	-0.38	0.67
RET	**-1.08878*** **	**0.15600**	**0.68742*** **	**0.04735**
	-4.24	1.34	6.98	0.27
rep_dem	**0.00298**	**-0.01178***	**-0.00322**	**-0.02734** **
	0.19	-1.61	-0.52	-2.5
rep_win	**0.01394**	**-0.00335**	**-0.00373**	**-0.06876*** **
	0.38	-0.2	-0.26	-2.75
rep_int	**-0.01261**	**0.00519**	**0.00976**	**0.03162***
	-0.62	0.56	1.25	2.29

Table 6. **Market Adjusted Return Value Weighted Regression**

This table uses the following regression to estimate variables of interest related to Cumulative Abnormal Returns:

$CAR(a, b)_i = \beta_1 (BIDLO)_i + \beta_2 (ASKHI)_i + \beta_3 (PRC)_i + \beta_4 (VOL)_i + \beta_5 (RET)_i + \beta_6(REP\_DEM)_i + \beta_8 (REP\_WIN)_i + \beta_9 (REP\_INTERACTION)_i + \varepsilon_i$

The dependent variable is the Cumulative Abnormal Returns for a given window of time for stock i. This is then summed up for all stocks in the portfolio and reported. The variables used within the regression are the following. BIDLO is the low bid price on a given day for stock i. ASKHI is the highest ask price for stock i on a given day. PRC is the close price for each day on each stock. RET gives the return for a stock based on the performance from the prior day. Rep_dem is a ratio that takes the number of Republican congressmen that own the stock divided by the number of Democrats that own the stock. Rep_win is a dummy variable that takes on the value of one if Republicans won the election (net change in congressmen was positive for Republicans), and zero if Democrats won the election. Rep_int is the interaction between rep_dem and rep_win, capturing the effects of how those two variables interact. *, **, and *** denote statistical significance levels of 0.10, 0.05, 0.01, respectively.

MAR Value Weighted				
CAR Window	(-30,1)	(-5,5)	(-3,3)	(0,10)
Constant	**0.00466**	**0.01428**	**0.00851**	**0.04083****
	0.17	1.15	0.81	2.42
BIDLO	**0.00009**	**0.00009**	**0.00002**	**-0.00002**
	0.33	0.67	0.2	-0.14
ASKHI	**0.00012**	**0.00000**	**0.00002**	**-0.00008**
	0.88	0.06	0.3	-0.96
PRC	**-0.00021**	**-0.00009**	**-0.00004**	**0.00011**
	-0.52	-0.49	-0.24	0.42
RET	**-0.9128*****	**0.2413****	**0.39372*****	**0.4898*****
	-3.6	2.06	3.97	3.07
rep_dem	**0.00445**	**-0.01097***	**-0.00872**	**-0.0169***
	0.28	-1.5	-1.41	-1.7
rep_win	**0.01671**	**-0.00136**	**-0.01949**	**-0.05044****
	0.46	-0.08	-1.37	-2.21
rep_int	**-0.01543**	**0.00488**	**0.01266***	**0.0219***
	-0.77	0.53	1.61	1.74

Table 7. **Scholes-Williams Equally Weighted Regression**

This table uses the following regression to estimate variables of interest related to Cumulative Abnormal Returns:
$CAR(a, b)_i = \beta_1 (BIDLO)_i + \beta_2 (ASKHI)_i + \beta_3 (PRC)_i + \beta_4 (VOL)_i + \beta_5 (RET)_i + \beta_6(REP\_DEM)_i + \beta_8 (REP\_WIN)_i + \beta_9 (REP\_INTERACTION)_i + \varepsilon_i$

The dependent variable is the Cumulative Abnormal Returns for a given window of time for stock i. This is then summed up for all stocks in the portfolio and reported. The variables used within the regression are the following. BIDLO is the low bid price on a given day for stock i. ASKHI is the highest ask price for stock i on a given day. PRC is the close price for each day on each stock. RET gives the return for a stock based on the performance from the prior day. Rep_dem is a ratio that takes the number of Republican congressmen that own the stock divided by the number of Democrats that own the stock. Rep_win is a dummy variable that takes on the value of one if Republicans won the election (net change in congressmen was positive for Republicans), and zero if Democrats won the election. Rep_int is the interaction between rep_dem and rep_win, capturing the effects of how those two variables interact. *, **, and *** denote statistical significance levels of 0.10, 0.05, 0.01, respectively.

SW Equal Weighted				
CAR Window	(-30,1)	(-5,5)	(-3,3)	(0,10)
Constant	**-0.0747****	**0.06602*****	**0.000611**	**0.01419**
	-2.45	4.21	0.05	0.95
BIDLO	**0.00024066**	**-0.00001**	**0.000039**	**0.00001**
	0.76	-0.04	0.34	0.08
ASKHI	**0.00013363**	**0.00001**	**0.000024**	**-0.00009**
	0.87	0.15	0.43	-1.23
PRC	**-0.00037301**	**-0.00001**	**-0.000063**	**0.00008**
	-0.82	-0.03	-0.38	0.36
RET	**-1.33822*****	**0.5316*****	**0.81446*****	**-0.19487**
	-4.65	3.59	7.72	-1.38
rep_dem	**0.03429***	**-0.03174*****	**-0.005970**	**-0.00528**
	1.91	-3.42	-0.9	-0.60
rep_win	**0.09765****	**-0.04598**	**-0.003500**	**-0.01715**
	2.37	-2.16	-0.23	-0.85
rep_int	**-0.05054****	**0.02689****	**0.011990**	**0.00703**
	-2.22	2.29	1.44	0.63

Table 8. **Scholes-Williams Value Weighted Regression**

his table uses the following regression to estimate variables of interest related to Cumulative Abnormal Returns:

$CAR(a, b)_i = \beta_1 (BIDLO)_i + \beta_2 (ASKHI)_i + \beta_3 (PRC)_i + \beta_4 (VOL)_i + \beta_5 (RET)_i + \beta_6(REP\_DEM)_i + \beta_8 (REP\_WIN)_i + \beta_9 (REP\_INTERACTION)_i + \varepsilon_i$

The dependent variable is the Cumulative Abnormal Returns for a given window of time for stock i. This is then summed up for all stocks in the portfolio and reported. The variables used within the regression are the following. BIDLO is the low bid price on a given day for stock i. ASKHI is the highest ask price for stock i on a given day. PRC is the close price for each day on each stock. RET gives the return for a stock based on the performance from the prior day. Rep_dem is a ratio that takes the number of Republican congressmen that own the stock divided by the number of Democrats that own the stock. Rep_win is a dummy variable that takes on the value of one if Republicans won the election (net change in congressmen was positive for Republicans), and zero if Democrats won the election. Rep_int is the interaction between rep_dem and rep_win, capturing the effects of how those two variables interact. *, **, and *** denote statistical significance levels of 0.10, 0.05, 0.01, respectively.

SW Value Weighted				
CAR Window	(-30,1)	(-5,5)	(-3,3)	(0,10)
Constant	**-0.05674***	**0.05378*****	**0.00716**	**0.00814**
	-1.88	3.54	0.67	0.58
BIDLO	**0.00024**	**0.00000**	**0.00003**	**0.00004**
	0.76	0.03	0.23	0.3
ASKHI	**0.00012**	**0.00002**	**0.00002**	**-0.00009**
	0.8	0.3	0.39	-1.2
PRC	**-0.00036**	**-0.00003**	**-0.00005**	**0.00004**
	-0.8	-0.12	-0.29	0.2
RET	**-1.3337*****	**0.69301*****	**0.4369*****	**0.2562***
	-4.68	4.83	4.31	1.92
rep_dem	**0.02614**	**-0.02648*****	**-0.00837**	**-0.00518**
	1.47	-2.95	-1.32	-0.62
rep_win	**0.0783***	**-0.0393***	**-0.01431**	**-0.02075**
	1.92	-1.91	-0.99	-1.08
rep_int	**-0.04238***	**0.02239***	**0.01178**	**0.00862**
	-1.88	1.97	1.47	0.81