

Louvain School of Management

Stock market performance around national elections of OECD countries from 1989 to 2016

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Introduction

Every country's economy is affected by financial markets in general and stock market performance in particular. Levine and Zervos (1998) demonstrates a strong positive link between economic growth and financial development. Their results show that stability of financial market performance is a key indicator when analyzing the economic health of a country.

Indeed, the stock market plays an important role in financial markets. By establishing a global channelization of securities between buyers and sellers, it sets up the initial access to industrial growth. Moreover, the overall economic competitiveness of a country, the amount of domestic and international investment, is strongly affected by the stability of development and performance of the market.

By consequence, it is important to understand what are the elements shaping its fluctuation. The stock market is influenced by economic, non-economic and political events. Within the economic events, a differentiation can be made between individual entities that are affected by microeconomic variables, and the entire market, which is affected by macroeconomic variables such as inflation, interest rate, unemployment rate or fiscal and monetary policy.

Furthermore, Hibbs (1977) declares that the macroeconomic situation of a country is not only a direct consequence of the economy itself but also depends on the short- and long-term policy decisions of the government. He also identifies the different political partisanships as the drivers that lead to differences in term of political objectives and economic policies.

Even if at first sight political events do not have any direct relationship with stock markets, it is considered as one of the main factors that may affect the economic situation of a country.

In particular, Oehler, Walker and Wendt (2012) assume that the outcome of the election capture the information needed by investors regarding future political reforms and other potential changes in government policy. These potential reforms can have multiple aspects; it can be economic with trade and monetary policy, regulatory with law enforcement, or even fiscal with potential changes in taxes or subsidizes.

Therefore, the same way economic events influence the stock market performance, political events and post-election government orientation can have positive or negative impact on the overall economy of a country. Political party differences in terms of reforms and policies have the potential to affect the economy among different time horizon, both at a global and sector specific level, which should result in different returns to shareholders.

Investors anticipate the outcome of the election by pricing their belief in term of political change prior the election and modify it depending on the actual outcome of the votes and the effective political decisions of the government in place. In result, in case a candidate is more likely to win and profound changes in economic policies are expected to happen, the analysis of aggregate stock price movement before and after presidential election should reflect these information.

Since the world political system is dominated by a two wings model, a change in political orientation – a right wing government elected after a period administered by a left wing party and vice versa – should lead to bigger fluctuation in stock prices than the re-election of either the same person as the head of government or the same party.

Opinion polls about election results that are supposed to predict the outcome and guide the market participants in their investments are only based on statistics and often stay unclear. Jones (2008) shows that this uncertainty leads to an increase in volatility, especially when chances of victory are the same for both political parties.

Moreover, stock market expectations regarding the performance of the listed companies are affected by this higher political uncertainty. Indeed, Julio and Yook (2012) found that the market participants are decreasing their number of investment during elections year while He and al (2009) described in their paper that investors have more difficulties accessing the market information.

However, on the election day, the release of the information about voting results reduce the uncertainty. Additionally, after the inauguration, when market participants access further information about the detail program of the new leader, this uncertainty is even more reduced.

When analyzing the effect of several elections in the United States, Santa-Clara and Valkanov (2003) describe excess stock market returns significantly larger during Democratic than Republican presidencies. Nevertheless, the effect of a certain majority, from either left or right wing, following the inauguration is not clear and only few proofs are found on factors that would explain the difference. The two authors define this effect as the presidential puzzle.

Drazen (2001) brings new precisions and finds that it is during the first 90 days of the new presidency that most of the significant changes in policy occurs. The further findings of Santa-Clara and Valkanov (2003) state that after this first period of 90 days, the difference in excess returns do not cease to increase during the presidency, influenced by the unexpected stock market returns. Later studies such as the one of Pastor and Veronesi (2012) confirm that these stock price effects are partly driven by the exposure of the company to the government policy.

In this paper, I analyze a sample of 29 OECD countries to test whether national elections results influenced the stock market performance between 1989 and 2016. I aim to extend the analysis of Bialkowski et al. (2008) in several respects; to the best of my knowledge, this paper is the first attempt to address the effects of political elections and stock market abnormal return on an international level.

First, I list elections by country and form subsamples depending on several characteristics in order to perform an event study analysis and detect potential abnormal stock price returns. These first results let me answer to the question about the presidential puzzle, solving whether market participant prefer right of left wing party.

To do so, I set the assumption that pre-election estimations and market information are not able to forecast election results and that on the election date, new information will be revealed so that the stock prices will represent the new positions of the investors.

In addition, I operate a regression analysis in order to determine and test the significance of several factors that are expected to affect the company's stock returns prior and after general elections.

The study is unique in its nature as it examines the effect of multiple political events on stock market returns in an international dimension, and the investigation of excess abnormal returns around general elections is justified on at least three grounds.

First, implication regarding risk averse investors are important during period of uncertainty. French and Poterba (1991) demonstrates that market participants are undiversified internationally and experience a significant home bias. Baxter and Jermann (1997) identify that predominance of domestic assets composing a portfolio increases the associate country-specific political risk. On the contrary, this risk level is reduced in an international diversified portfolio. It grants the investors to avoid the problem that a singular event, a political election in a specific country, impacts on the risk level of their portfolio.

Second, systematic volatility increases with the market-wide fluctuations associate with election shocks. Consequently, it is plausible that future option prices increase during the time of uncertainty, when the polls about the outcome of the election in the specific country are still not clear-cut.

Finally, the results of this study can provide indirect evidence on whether the pre-election forecasts are accurate in their prediction and if it can serve as basis of practical applications such as investment strategies or recommendation.

The paper is organized as follows. In the following section, I provide a brief review of the related literature. Afterward, in the next section I explain the dataset used in the analysis, and then present both the event study and the regression methodology applied. The event study and regression are presented in the results section. In the following sections, I explain the opportunity of investment strategies and then I discuss and conclude about the results.

Literature review

Political uncertainty

Over the past few decades, many studies have been carried out and gathered information regarding the effect of political uncertainty on both market volatility and stock returns during general election cycles.

Hirshleifer (2001) and Ozoguz (2009) among other literatures, have recognized a negative association between financial asset valuation and the level of uncertainty regarding the economy.

Li and born (2006), He et al (2009), Jones and Banning (2009), Sy and Al Zaman (2011), and Goodell and Bodey (2012), all agree on the fact that political uncertainty, and political factors in general, have significant influence on the risk levels and returns associate with financial assets.

In concrete terms, Pantzalis and al. (2000), confirm the uncertain information hypothesis of Brown et al. (1988) regarding asset valuation during uncertain period by using a broad sample of countries. They identify that stock market prices usually rise during the two weeks period that precede the elections, driven by a diminution of uncertainty.

The works of He et al. (2009), and Goodell and Bodey (2012), on the influence of US elections on stock prices also confirm that uncertainty caused by the elections is reflected in stock prices. When they analyze the results of the 2000 presidential election, He and al. (2009), spotted a negative relationship between stocks and uncertainty.

In contradiction, Li and Born (2006), with their studies about US presidential elections between 1964 and 2000, document that the stock prices increase when the results of the vote are uncertain.

Another side of the study of Goodell and Bodey (2012) focus on financial ratios. They document a positive relationship between price-earnings (P/E) ratios and uncertainty. The P/E ratios decrease when US presidential election outcome uncertainty decreases.

If this branch of literature usually focusses on results which effectively demonstrate that the reaction of the market participants depends on the outcome of the election, there is still a possibility that stock market prices are not only related with political uncertainty but also with other fundamentals.

Indeed, the study of Julio and Yook (2012) reports the presence of a relationship between investment firm behavior and investor's attitude during election period. Since companies diminish their expenditure during elections due to the political uncertainty, it is possible that market participant also change their behavior.

Political uncertainty and implied volatility

Gemmill (1992) concentrate his work on another aspect that is related with political uncertainty, its relationship with implied volatility. His study covers the British parliamentary election of 1987. He reports an increase of the implied volatility that measures the stock market volatility of the FTSE 100 index during the period that precedes the election. He also documents that this period is directly link with the time opinion polls indicate an increase in the victory odds of a Conservative party.

In their academic paper, Li and Born (2006) examine the relationship between implied volatility and uncertainty during US presidential election. They find that stock market volatility only increase when both candidates have the same chance of victory.

On a wider basis, Bialkowski et al. (2008) based their research on 27 OECD countries and analyzed stock market uncertainty during both presidential and parliamentary elections. They find that general elections are followed by a period where stock market volatility increases in comparison with the period prior the election. They document the effect of surprise as the main driver of this increase in volatility.

The three authors are consistent with each other and all agree that political elections, both presidential and parliamentary, can increase uncertainty associated with market information and can have an impact on the financial markets.

Goodwell and Vähämaa (2012) examine the effects of political uncertainty on implied volatility during US presidential election cycle. They base their empirical results on five general elections between 1992 and 2008. They document that stock market volatility around US presidential elections are impacted by political uncertainty. More precisely, they find a positive relation between implied volatility of the S&P500 and the election probability of the eventual winner. It is consistent with the political uncertainty hypothesis which consider that information regarding the probability of a particular election winner reflects information about future macroeconomic policy.

Moreover, it confirms that the general election period increases market anxiety as market participants price their expectations depending on the new information available about the future economic policy.

The interaction between elections and politics in the economy

The statement that economic situation of a country affect the presidential and congressional election outcome is confirmed by the work of Chappell and Keech (1985), Lewis-Beck (1988), Lynch (1999 & 2002) and Fair (2009).

Furthermore, Chappell and Keech (1986), Alesina and Sachs (1988), and Grier (2008) document that the economic policies of a new leader and his party influence the fundamental macroeconomic factors.

With these statements, stock market prices are supposed to increase during election cycles as described by Lewis-Beck (1988). He reports that the price level should profit from both influence of the economic situation on electoral behavior and the wish of politician to be nominated.

Since the historic separation between the two ideologies in the US, Democrats and Republicans, a wide range of the literature is highlighting the effect of a two party system in general, and in particular how presidencies nominees and parties influence the economic situation and financial markets of the country.

Nordhaus (1975) and Hibbs (1977) established a theory called Political Business Cycles (PBC). It states that election period is characterized on one hand with an increase in the growth rate of the gross domestic product (GDP) and on the other hand, with a period of inflation-curtailling contraction that follows the election date.

With the PBC, the two authors postulates that it is the actions taken by the politicians who want to profit from economic situation and influence the voting behavior of the population, by influencing the growth of economy, that create these political cycles.

In the US, Grier (2008) identified the different political business cycles between 1961 and 2004. A branch of literature points the partisan effects as the cause of these cycles.

The Rational Partisan Theory (RPT), first described by Alesina (1987) and then by Berlemann and Markwardt (2006), states that the outcome predictions regarding the future inflation can affect remuneration negotiation month before election results. It is founded on the statement that right wing partisans prefer anti-inflation measures, since it would create uncertainty about financial markets performance; while on the contrary, left wing partisans want to maintain growth by generating higher inflation to assure their wealth, which is represented by human capital.

Since the expectations regarding the election results are uncertain and that the outcome can be unexpected, the anticipations about the degree of inflation can be wrong. In consequence, in case a left-wing party wins the election, the period following the results is characterized by an economic boom since the wage rates are inferior to the theoretical benchmark.

On the contrary, if a right-wing oriented government is elected, the period following the election is characterized by an economic recession. Indeed, since the high expectation regarding inflation rates influenced the wage level, the salaries are now too high and need to be adjusted.

With these observations, the literature establishes a positive correlation between the degree of surprise regarding the outcome of the elections, and the magnitude of the recessions and booms happening during the post-election period.

The comparison between the two theories, the PCB and Partisan theory, conducted by Grier (2008) in the United States, reveals that both models anticipate the outcome in the same way. Indeed, both indicate either an increase in the economic growth period following the election of a Democratic Party, or a decreasing economic growth period when the winning President is a Republican.

The empirical analysis of Chappell and Keech (1986) and Alesina and Sachs (1988) reveals consistent results with the previous statement. In comparison with the election of a Republican party, it shows that the economic growth and the inflation are significantly higher during the period of two years that follows the election of a Democratic President.

The relationship between stock price, general elections and political cycles

A wide range of literature is focused on the relationship between stock price, the general election and the political cycle. In particular, the following authors document this relation in the United States; Niederhoffer et al. (1970), Riley and Luksetich (1980), Aggarwal and Schirm (1992), Hensel and Ziemba (1995), Johnson et al. (1999), Santa-Clara and Valkanov (2003).

The first two papers document that United States elections have a significant impact on stock market. More precisely, they report that market participants tend to prefer the election of a Republican candidate rather than Democratic. They indicate that this affirmation is true on a short term basis, based on the stock price level during the period following the results.

The next authors – Hensel and Ziemba (1995), Johnson et al. (1999), Santa-Clara and Valkanov (2003) and Sy and Al Zaman (2011) – are highlighting the long-term relationship that can exist between the profound ideology orientation of a President's administration and the price level of securities listed on the stock exchange.

The two studies of 1995 and 1999 set a distinction between the different levels of capitalization of the listed securities. They find that small capitalizations have a tendency to have higher returns during Democratic Presidency and lower returns during Republican Presidency.

The study of 2003 of Santa-Clara and Valkanov, which focus on the presidencies between 1927 and 1998, highlights stocks returns level during each President Administration period, both Republican and Democratic. On average, they document a 9% higher annual excess return on value-weighted indices during period of Democratic Presidencies.

On the contrary, the three latest studies of Powell et al. (2007), Jones and Banning (2009), and Sy and Al Zaman (2011) state no significant evidence of stock returns variation among presidencies and different ideology.

Powell et al. (2007) and Sy and Al Zaman (2011) statistically test the relationship between the two elements and find no significance differences in the returns associated with either period of Democratic or Republican administrations.

Sy and Al Zaman (2011) test presidency period regarding market and default risk premium in relation with stock returns level. Their findings indicate that these returns are higher during Democratic presidencies.

In their paper, Jones and Banning (2009) analyze the relationship between the United States elections and the stock market performance. Their empirical study is computing monthly stock returns on a long period of 104 years. His results reveal no particular systematic effect on stock performance that are due to a certain control combination of the US government.

On the contrary, several studies handled by Knight (2006) and Jayachandran (2006) document that the party orientation of the white house can have an influence on specific industries due to the partisan effect.

Knight (2006) investigates the stock prices level in several firms during the period that follows the election of George W. Bush in 2000. His analysis shows an average rise of 13% in firms belonging to the tobacco sectors whereas IT firms such as Microsoft decreased by 15%.

Jayachandran (2006) analyze the impact of the decision of Jim Jeffords, US Senator, in 2001 who decided to change his party affiliation. His moves from the Republican to the Democratic Party affected the market capitalization of the public sectors. He reports a decrease of 0.8% on average for each contribution tranches of 250.000 dollars that companies gave to the Republican during the previous presidential cycle.

On a shorter term basis, several authors such as Nippani and Medlin (2002), Nippani and Arize (2005), Li and Born (2006), He et al. (2009), and Goodell and Bodey (2012), document the relationship between stock, uncertainty and elections.

Several years after the election of Bush in 2000, Nippani and Medlin (2002), Nippani and Arize (2005), and He et al. (2009) analysis the effect of the delayed result on the stock performance. It appears that this delay, between the period of votes and the results, caused a peak of volatility due to uncertainty in the financial markets and negatively influenced the stock prices.

Later in 2006, Li and Born analyze the impact of elections between 1964 and 2000 on implied volatility. They report that stock prices increase during the period of uncertainty when neither Democratic nor Republican candidate had a significant advantage in the opinion polls regarding the results.

The impact of volatility on stock market during political elections

As it is reported in the last section, a wide range of the literature focus their research on the relationship between stock returns and elections, elections in general but mostly regarding US presidential in particular.

Only few authors examine the relationship between stock market volatility and elections.

Li and Born (2006) mention the increase of volatility during time of uncertainty such as US presidential elections, in particular during the period prior the election date.

In addition, other authors – Gemmill (1992) and Bialkowski and al. (2008) – have bring precisions regarding volatility level around such event.

With his study about the British Parliamentary election of 1987, Gemmill (1992) discovers that volatility level is connected the same way to opinion polling than the price level of the stock composing the FTSE 100 index.

More precisely, the author detects that it is during the two weeks preceding the elections that the relationship appears the most. During this period, his results shows that when the chances of winning of a Conservative party are increasing, or that the opinion polls are more and more

favorable to this outcome, the level of volatility is increasing with the same intensity and direction.

With their research based on 27 OECD countries, Bialkowski et al. (2008) document both presidential and national parliamentary elections influence on stock market implied volatility.

The two papers have consistent findings as the international investigation of 2008 also associates period of high volatility with period of elections. Moreover, the last authors also indicate an increasing level of the implied volatility during the weeks preceding the election date.

The further work of Goodell and Vähämaa (2012) confirms the previous findings about the role of US Presidential election cycle on uncertainty and volatility.

However, in contrast to what is done by Gemmill (1992) and Bialkowski and al. (2008), the authors concentrate their empirical analysis beyond the only link that could exist between stocks, political uncertainty and volatility.

In addition, they put into perspective the changes in winning percentage prediction of the two Presidential candidate, and the uncertainty level with the elections impact on volatility. Moreover, they do not consider the theory regarding the Partisan effect, or any other model that would take into consideration that investors generally prefer one party to another when it comes to certain industries or sectors investments.

Country specific analysis

If most of the previous literatures document the impact of US elections on stocks price performance, another branch of authors reviews their impact on a more international level, both in developed and emerging countries.

For example, Beaulieu et al. (2006), Frey and Waldenstrom (2004) or Onder and Simga-Mugan (2006) review impact in several countries from Quebec to Germany or even Argentina.

I. German and Belgian government bonds in Stockholm and Zurich exchange during the second World War

Analyzing the movement of the German and Belgian Government bonds traded in Stockholm and Zurich between 1939 and 1945, they document three main events that had a negative impact on the value of these bonds. The two first dates, the German invasion of Poland in September 1939 and the French and Benelux invasion in May 1940 had a same impact on both exchanges, on one hand, it increased the German bonds value and on the other hand, it decreased Belgian bonds value. On the contrary, the Last event, the defeat of Germany at Stalingrad in 1943 had an opposite impact; it increased the Belgian bonds and decreases the German bonds value.

II. International influence on US-based international equity mutual funds from the Kuwait invasion

In their paper from 2005, Bailey and al. document the impact of the Iraqi invasion of Kuwait in August 1990 on the returns of the US-based international equity mutual funds. With their event study they construct dummy variables and highlight the abnormal returns during a 33 days event period. The authors reveal that while the US investors had a positive abnormal during the 11 preceding the Kuwait invasion, the foreign stock market participants suffered from a negative impact during the Iraq invasion of Kuwait. In addition, when analyzing the US equity mutual funds, the invasion had a minor impact in comparison with the rest of the market.

III. Quebec referendum of 1995

On a shorter-term basis, Beaulieu and al (2006) study the impact of Quebec referendum in October 1995 regarding its separation from the Canada Federation.

Their investigation reveals that the result had a positive influence on the stock returns. The outcome that stated Quebec would not change its situation and remain part of the Canadian Federation was seen as positively by market participants and financial markets.

The impact of the referendum was more important on firms with higher political risk exposure. In addition, when the authors compare the impact on both domestic and international side, they identify a greater influence of political uncertainty on industries of Quebec but also of Canada.

IV. London bond market from 1845 to 1914

Ferguson (2006) first analysis the London bond market variation and then compare it with the international bond yield during the period from 1845 to 1914. He bases his empirical analysis taking historical weekly closing prices of bonds that are issued from France, United Kingdom, Austria, Hungary, Russia and Germany.

He states that political events such as revolutions, diplomatic crisis and wars have a bigger impact on international bond yield level during the period of 1845-1880 than 1881-1914. Despite the fact that the author cannot find any reason why the London bond market failed to anticipate the risk of the first World War, it seems the difference of impact level in the two periods is due to the growing separation of the domestic bond markets.

V. Domestic political events on the Jakarta Stock Exchange

Ismail and Suhardjo (2001) focus their analysis on the Asian developing markets and more precisely in Indonesia, studying several national political events on the Jakarta Stock Exchange (JSX).

They base their analysis on empirical data from 1999 to 2001, and perform an event study analysis on the 11 days period that contain the event. Note that a sample of 100 days prior the event period is taken in order to highlight the abnormal returns of the JSX.

Their results state that neither the stock market in general nor particular industries show significant abnormal returns between 1999 and 2001 that would have been influenced by certain political events.

Actually, only two out of the eleven events analysis present sign of political influence. The two events are the church bombing in May 2000, and the cabinet movement of August 2000, which were caused by political divergence of issue.

With the Asian financial crisis in 1997, Indonesia financial market were not stable due to the political uncertainty. Due to this uncertainty, studies revealed a greater volatility and a rise of 273 percent in the measure of dispersion of the economic performance between the prior and post Asian financial crisis period.

Moreover, the authors document that between 1999 and 2000 the market participants were less influenced by the political outcome. Indeed, stock market prices were less impacted by the different political events, the authors relate it is linked with the used of the investors regarding the unchanged uncertain situation.

VI. South Korea elections and Korea Stock Price Index performance

Chiu et al. (2005) focus their analysis on South Korea election that took place in the period from November 1997 to June 2004. It gathers data of four different elections, the 15th and 16th presidential elections and the 16th and 17th parliamentary elections. They performed an empirical analysis

They measure the impact of elections using a bivariate GARCH framework, analyzing dummy variables impact on the behavior of foreign investors.

More precisely, they state to orient their study around three main hypotheses:

- *The foreign investors change their trading strategy at the time of election.*
- *Presidential elections have more impact to market activity as compared to parliamentary elections.*
- *Foreign investors prefer trading in Korea Stock Price Index (KOSPI) 200 futures instead of KOSPI 200 options at the time of political instability.*

The results are consistent with the first hypothesis; the market participant change their investment strategy during period of election.

Regarding the second hypothesis, the authors document a drop in the trading volume of option contracts during period of parliamentary elections when comparing with presidential elections. In addition, both options and futures contracts were more stable during parliamentary run.

Finally, they highlight a negative relationship between the Korea Stock Price Index 200 and the two derivatives contracts during time of political uncertainty.

VII. Economic and political news influence in Argentina and Turkey

Onder and Simga-Mugan (2006) study the variations of the Buenos Aires Stock Exchange (BASE) and Istanbul Stock Exchange (ISE) that are due to the economic and political announcement. They base their analysis on financial market data from Argentina and Turkey stock exchange during the period from 1995 to 1997.

They found a consistent link between economic and political news, and the stock markets fluctuation. On one hand, the national political news had a positive effect on returns volatility, and on the other hand, the world political announcement impacted the volume of trading both in Argentina and Turkey. However, there was a difference in the orientation of the effect, while the trading volume increased on the BASE, it decreased on the ISE.

Regarding the economic announcement impact, on a national level it only impacted the Buenos Aires Stock Exchange with a significant increase in the market volatility.

However, both markets were influence by economic news when analyzing the trading volume. BASE was affected by world economic news and ISE was affected by national economic announcement.

VIII. Turkish parliament bill rejection and efficient market hypothesis

In 2006, Aktas and Oncu test the Efficient Market Hypothesis (EMH) during the period around the Turkish parliament rejection of the 2003 bill that would allow the US army deployment.

Regarding the methodology, the authors test the market model with three different estimation period; 60, 120 and 240 days.

Their empirical analysis shows significant betas on the date following the rejection of the bill, the Efficient Market Hypothesis was not rejected as it had no proof of either overestimation or underestimation.

IX. Economic and political influence on Pakistan stock exchange

Masood and Sergi (2008) study the important announcement of Pakistanis political parties on stock prices between 1947 and 2006. They base their analysis on multiple data base coming from economist, investors, historians, and other market participants that can be useful in order to analyze and forecast the stock market trends using a Markov Chain Monte Carlo techniques.

With their results they state that on average, the political uncertainty in Pakistan had a risk premium between 7.5 and 12 percent during the period of analysis. In addition, they document that the level of uncertainty in the country would remain unchanged in the future.

Several other authors have observed the impact of economic and political event on the Pakistan Stock Exchange. Malik and Al (2009) analyses the resignation of the president Muhasaraf on August 18 in 2008.

The authors base their analysis on the daily returns and volume of the KSE 100 index during a one-year period starting in February 2008.

Their result highlight a positive link between the volume of trades and the stock market returns, it is even particularly stronger during the post period of the event.

Methodology

Event study

This paper has used the event study methodology to measure the election impact MSCI country indices enumerate in Data section. In this context, I want to test the hypothesis that pre-election polls are not able to completely forecast election outcome and that the election results will reveal new information which, in turn, will be reflected into the market value.

Two authors, Brown and Warner (1985) and Mackinlay (1997), have particularly documented the methodology and utility of event studies. They state such analysis are useful in order to gauge the economic or political impact of a certain event on the valuation of a company in a short period of time.

Several authors such as Suhardjo (2001), Bailey and al. (2005) and Beaulieu and al. (2006) have used this methodology with the aim to study the effect of political events in particular.

In addition to the two first authors, the document of Henderson in 1990 states that events studies can provide better result when the analysis is done on a long period and measure wide market event at both market level or individual industry level. In this paper I indeed use the event study methodology in order to capture the variation of the whole market due to political events.

Thanks to the development of financial market database, it is possible nowadays to do event analysis in multiple domain such as accounting, economic, and finance. The different authors also document that the other strength of the methodology consist in that some abnormal returns of a specific firm can be compared to other firms in a similar situation by aggregating their result over different time period.

Brown and Warner (1985) continue their previous paper of 1980 and add that abnormal returns measure with simple estimation procedure display no significant mean bias. They simulated event studies of random samples and find that simple estimation techniques such as market-adjusted or mean adjusted returns are well specified.

Event window

For each election I use a maximum of 250 daily return observations regarding the period around its respective event, starting at day - 224 and ending at day +25. The first 199 days in this period (- 224 through - 26) is designated as the 'estimation period', and the following 51 days (- 25 through + 25) is designated the 'event period'.

I do not use a too long term pre-election betas over the entire administration period covering the entire term of the government, because I assume that both voters and market participants are historically narrow minded in the estimation of the different economic policy as it is reported in the paper of Niskanen (1975).

However, regarding the presidential elections, Beyer and al (2008) report that the 200 days of the estimation period prior the election can result in upward biased expected returns since their analysis indicates that stock prices have generally better returns in the second half of a presidency.

Construction

For both presidential and parliamentary elections, I analyzed the mean abnormal stock price return over all 194 possible elections in the 29 countries using the market model approach.

Four observation periods has been set up; the -2 through +2 period in order to determine any direct adjustments in the market participant's expectations about changes in economic policies. The other timeframe are ; -5 through +5, -10 through +10 and -25 through +25.

Model

To analyze the sample, I used the mean adjusted returns model in order to compare the normal and expected returns during the period around the election. I estimated returns of the stocks for the four considered event periods using the Capital Asset Pricing Model. Both estimators, Beta and Alpha, has been computed based on the control period.

I calculated the Excess Returns for each observation of both event periods, following the appropriate formula:

$$e_{it} = R_{it} - E[R_{it}] \cdot \sum_{t=1}^t R_t$$

The interpretation of excess return can be easily described as the difference between the expected return (an estimation based on past data) and the actual return. That means the excess returns is the part of the actual return, either positive or negative, that cannot be explained by CAPM, thus by past prices. In this case, it is a useful tool to assess whether the event led to abnormal price movements - and the direction of them - or not. In short, excess return will testify the potential impact of the event.

For every observation in the event periods, I computed the Abnormal Return, namely the average excess return for all the stocks:

$$AR_t = \sum_{i=1}^N \frac{e_{it}}{N}$$

I processed AR for all the stocks as well as for each country and factor characteristic.

The next step was to compute the Cumulative Abnormal Return (CAR). This is simply the cumulative sum of the AR during the event period. We calculated the sum at every time of the period in order to illustrate the incremental progression of the CAR, following the rule:

$$CAR_t = CAR_{t-1} + AR_t$$

Where :

CAR_t = the cumulative abnormal return at time t

CAR_{t-1} = The cumulative abnormal return at time $t - 1$

AR_t = The abnormal return at time t

The CAR result at the end of the period is equal to:

$$CAR_{-25 \text{ to } +25} = \sum_{t=-25}^{+25} AR_t$$

Finally, I made t-test statistics in order to assess the significance of the results. I processed the test on the Abnormal Return as well as for the Cumulative Abnormal Return of the four periods around the event.

Data

Morgan Stanley Capital International

Following the work of Białkowski, Gottschalk and Wisniewski (2008) I construct my empirical analysis by gathering information of 29 out of the 35 Organisation for Economic Co-operation and Development (OECD) countries. The aim is to extend the previous analysis around national election with a focus at an international level.

By the time of the publication of this thesis, data on six countries are missing. For the five following countries that are Estonia, Iceland, Luxembourg, Slovak Republic and Slovenia, the capital markets data provided by Morgan Stanley Capital International Inc (MSCI) are not available. Regarding Latvia, due to its entry in OECD in 2016 it is not possible to gather enough information in order to perform the event study.

The daily returns of the 29 OECD countries, that serve as the basis of the empirical analysis, were computed using the value-weighted and dividend payment adjusted of US dollar denominated MSCI Country Indices.

MSCI country indices are separated into three categories, the MSCI world index, the MSCI emerging markets index and the MSCI frontier markets index. The 29 OECD countries are present in the two first categories, which are gathered under the MSCI ACWI index. In order to conduct our event analysis, we chose this last MSCI ACWI index as a proxy of the international portfolio since it measures the performance of both MSCI world and MSCI emerging markets together.

The daily prices of both country indices and the benchmark are extracted from Bloomberg terminal. The following figure (Figure 1: MSCI Indices) gathers general information regarding the 29 OECD countries that constitute the basis of the empirical analysis.

Two distinct political system

As it is shown in the table, a distinction is made between parliamentary elections and presidential election. In this paper, I assume that voting behaviors and market participants are likely to react in the same way within both systems. Still, I have to be aware that the two have diverse constitutional features.

In a presidential administration it is the President that holds the different powers, he is at the same time head of government and head of state. The four countries that are characterized with such administration are Mexico, South Korea, Chile and the United States of America.

The rest of the sample, the 25 other countries, are characterized with a parliamentary system. In this administration it is a Prime Minister that is at the head of the government while it is a Monarch or a President at the head of the state.

The role and place of the head of the state and its importance inside the administration depends from one country to another. Sometimes, the Monarch only plays a symbolic role.

Due to this, the empirical study covers only the general elections that determine the formation of the future government inside the specific country. I select presidential elections in presidential administration systems, and parliamentary election in parliamentary systems.

Event study period and election date

From 1989 to 2016, our analysis collects information on 194 general elections, either parliamentary or presidential.

Country	MSCI index Starting Date	Election Type	First election included	Last election included	Number of election
AUSTRALIA	31/03/86	Parliamentary	24/03/90	2/07/16	10
AUSTRIA	31/03/86	Parliamentary	7/10/90	29/09/13	8
BELGIUM	31/12/69	Parliamentary	24/11/91	25/05/14	7
CANADA	31/03/86	Parliamentary	25/10/93	19/10/15	8
CHILE	31/12/87	Presidential	14/12/89	15/12/13	6
CZECH REPUBLIC	29/06/96	Parliamentary	20/06/98	26/10/13	5

DENMARK	31/03/86	Parliamentary	8/02/05	18/06/15	4
FINLAND	31/12/87	Parliamentary	17/03/91	19/04/15	7
FRANCE	31/03/86	Parliamentary	7/05/95	6/05/12	4
GERMANY	31/03/86	Parliamentary	2/12/90	22/09/13	7
GREECE	1/01/01	Parliamentary	7/03/04	20/09/15	7
HUNGARY	1/01/01	Parliamentary	21/04/02	6/04/14	4
IRELAND	30/04/90	Parliamentary	25/11/92	26/02/16	6
ISRAEL	31/01/94	Parliamentary	29/05/96	17/03/15	8
ITALY	31/03/86	Parliamentary	5/04/92	25/02/13	7
JAPAN	31/03/89	Parliamentary	18/02/90	14/12/14	9
KOREA	31/03/89	Presidential	18/12/92	19/12/12	5
MEXICO	29/06/96	Presidential	2/07/00	1/07/12	3
NETHERLANDS	31/03/86	Parliamentary	6/09/89	12/09/12	8
NEW ZEALAND	31/12/87	Parliamentary	27/10/90	20/09/14	9
NORWAY	31/03/86	Parliamentary	11/09/89	9/09/13	7
POLAND	30/09/94	Parliamentary	21/09/97	25/10/15	6
PORTUGAL	31/05/89	Parliamentary	10/10/99	5/06/11	5
SPAIN	31/03/86	Parliamentary	29/10/89	26/06/16	9
SWEDEN	31/03/86	Parliamentary	15/09/91	14/09/14	7
SWITZERLAND	31/03/86	Parliamentary	20/10/91	18/10/15	7
TURKEY	31/01/90	Parliamentary	20/10/91	1/11/15	8
UNITED KINGDOM	31/03/86	Parliamentary	9/04/92	7/05/15	6
UNITED STATES	31/03/86	Presidential	3/11/92	8/11/16	7

Table 1: MSCI countries information

MSCI country indices downloaded from Bloomberg have different started date and some of them have information before 1989. However, the starting date of 1989 is determined by the first election that is possible to analyze and compare with the proxy.

However, as it is indicated in the Table 1, even if the MSCI index observations starts before 1989, several period of study regarding their national elections start after this date. One reason for that is due to the frequency of the observations. Indeed, for some them, the extracted data from Bloomberg presents monthly frequencies for the first prices, which is too low when analyzing events such as elections.

In addition, if most of the indices that belongs to the developed market start in 1980, the rest of the countries, and in particular the ones that belong to the emerging market classification on MSCI, do not have available observations until late 1980s or in some case early 1990s.

Regarding the first election date, it has been determined as the first election that happens after the first 225 available observation of an index. The last election date is the last election that happens during the period of observation of the MSCI index.

The different restrictions enumerated before impact the number of elections that compose the sample. Still, the previous study about the volatility analysis in OECD counties, computed only election in 27 countries for a total number of 164 elections, while this paper gathers 194 elections in 29 countries.

Such as the information used by Bialkowski and al (2008), most of the election dates are obtained using the work of Lane et al. (1997), Caramani (2000), and Banks et al. (2004). Internet and newspaper researches were performed to both find the missing data and to cross check the integrity of the information.

Regression analysis

In addition to the study of the abnormal return we run a series of regressions in order to more closely determine the factors that influence the prior and post-election abnormal returns. The elections' compound abnormal stock price returns CAR_t are regressed on a number of explanatory variables for each window. Each of the explanatory variable are explained in the later section.

The regression model is set up as:

$$\begin{aligned}
 CAR_{i,t_1,t_2} = & \alpha + \beta_1 \text{ party orientation} + \beta_2 \text{ political system} \\
 & + \beta_3 \text{ majority minority} + \beta_4 \text{ percentage of victory} \\
 & + \beta_5 \text{ number of parties} + \beta_6 \text{ orientation change} \\
 & + \beta_7 \text{ anticipated election} + \beta_8 \text{ voting system} \\
 & + \beta_9 \text{ stock exchange} + \beta_{10} \log \text{ population} + \beta_{11} \log \text{ GDPperCapita} \\
 & + \varepsilon
 \end{aligned}$$

where α denotes the constant term, ε denotes the residual and the explanatory variables are explained in the next section.

Multiple explanatory variables

In order to detect the elements that influence the abnormal return of the stock during elections, and as a continuity of the work of Bialkowski and al (2008), we have constructed a data set of explanatory variables. It is served to point out the political, socio-economic, and institutional factors that can have an impact on the performance of the stocks prior and after the general elections. The data base consists of 194 elections.

The explanatory variables considered are the following:

- **Party orientation** (dummy variable) states whether the winning party is left or right oriented. The dummy variable takes a value of one for the right party oriented, and zero otherwise.
- **Political System** (dummy variable) states whether it is a parliamentary or presidential election. The dummy variable takes a value of one for the parliamentary elections, and zero for presidential elections.
- **Majority of a minority** (dummy variable) indicates if a minority party of a parliamentary system hold a majority of seats in the parliament. The dummy variable takes a value of one when the minority government do not hold a majority of seat in the parliament, it takes a value of zero in case of majority.
- **Percentage of Victory** is obtained from the difference between the percentage of popular votes obtained by government opposition and coalition during parliamentary elections. In Presidential elections it is simply the difference between winner and second place candidate.
- **Number of Parties** indicates the number of independent political parties involved in the government for parliamentary systems. It takes a value of one for presidential systems.
- **Orientation change** (dummy variable) indicates a change in the political orientation of the government. The dummy variable takes a value of one when there is a change in the government orientation, and the value of zero if the same party is reelected.

- **Anticipated Election** (dummy variable) spots elections called earlier. It takes into consideration the elections that happens more than three months before the official end of the government in place. The dummy variable takes a value of one in case the election is called earlier, zero if the election is normally programmed.
- **Stock Exchange** (dummy variable) indicates the age of the stock exchange. It takes the value of one for the stock exchange that were established after 1860 and zero for exchange with a wider period of trading history.
- **Voting system** (dummy variable) indicates countries where the vote is mandatory. The dummy variable takes a value of one for the political election where the vote is mandatory, it takes the value of zero otherwise.
- **Log Population** is the natural logarithm of total population during a specific year and in the specific country.
- **Log GDP per Capita** is the natural logarithm of GDP per capita during a specific year and in the specific country, measured in constant 2000 US dollars.

To spot these information, multiple source has been used. First, same as Bialkowski and al (2008), the Handbook of World Stock, Derivative and Commodity (1998) helped to construct the Stock Exchange dummy. The other dummy variables were constructed using the World Development Indicators database that is built by the World Bank.

In addition, several authors gather information regarding the other variables, these are; Alesina and Roubini (1992), Laver and Schofield (1998), Caramani (2000), Beck et al. (2001), Muller and Strøm (2003), and Banks et al. (2004).

Descriptive statistics about explanatory variables

Hereafter, the second Table (Table 2: Descriptive Statistics) compiled descriptive statistics for the explanatory variables introduced in the previous section.

First, in 48,45% of the sample of election, it is a left party that wins the election. Meaning that the majority of our sample are right oriented elected candidate.

Parliamentary elections account for 88.89% of the sample, and in only one-third of the cases, the winning party or coalition holds the majority of seats in parliament. This is principally due to several countries such as Czech Republic, Denmark, Finland, Belgium, Norway, Switzerland, or Israel, where minority government are the rule rather than the exception.

This high percentage can explain in part the negative average regarding the percentage of victory. This negative percentage of victory of - 22,84% can also be explained by the voting system of the different countries that compose the sample.

Indeed, certain countries have integrated majoritarian elements in their voting systems which is increasing the chance of certain parties to take part in the government as there is a possibility for a party with less than 50% of the vote shares to obtain some seat with a multi-party coalition.

The average number of political party that compose the government is a 7 coalition government and in 40% of the case there was a change in the political orientation.

Nearly one fifth of the elections were called earlier. Cargill and Hutchison (1991) document that government are more tempted to anticipate elections when no regular timing has been defined and that the economic situation of the country would be a good opportunity to win the next run and be reelected.

	Mean	Standard deviation	25th Percentile	Median	75th Percentile
Party orientation	0,4845	0,5011	-	-	1,0000
Political system	0,8889	0,3151	1,0000	1,0000	1,0000
Majority of a minority	0,6134	0,4882	-	1,0000	1,0000
Percentage of Victory	-0,2284	0,2232	-0,3912	-0,2088	-0,0627
Number of Parties	7,0309	3,5526	5,0000	7,0000	10,0000
Orientation change	0,4197	0,4948	-	-	1,0000
Anticipated Election	0,1753	0,3812	-	-	-
Voting system	0,1753	0,3812	-	-	-
Stock Exchange	0,4536	0,4991	-	-	1,0000
Log Population	16,8057	1,1647	15,8961	16,5835	17,8556
Log GDP per Capita	10,3607	0,5855	10,0976	10,5042	10,7471

Tableau 2: Descriptive statistics

In the sample, four countries (Australia, Austria, Belgium and Chile) have mandatory voting laws. Other countries either not enforced the laws or abolished it in the past few years. The laws are even different in each country; some regulators impose a fine where other limit the access to public sector.

Regarding the stock exchange, 45.36% of the sample are exchange that date after 1860, which is separate the sample in a nearly 50/50 repartition. The oldest stock exchange of the sample is the German stock exchange that dates from 1585.

Lastly, the population of the countries included in the sample ranges from 3.4 million in New Zealand, 1990 to 324 million in the United States in 2016. Regarding the GDP per capita it ranges from \$ 5670 in Chile in 1989 and \$ 38,222 in Norway 2005.

Results

Cumulative Abnormal Returns

The empirical results are computed following the abnormal return event study described in the methodology section. For the purposes of this work, I set the event day as the election day, except for instances when elections took place during weekends or on bank holidays. In these cases, day “zero” is defined as the first trading day after the election.

The following figure (Figure 2) describes the behavior of cumulative abnormal return around the vote-casting periods of the 194 elections that composed the sample. The first observation that can be made is that the elections are characterized three different periods; the pre-election, the election and finally the post-election period.

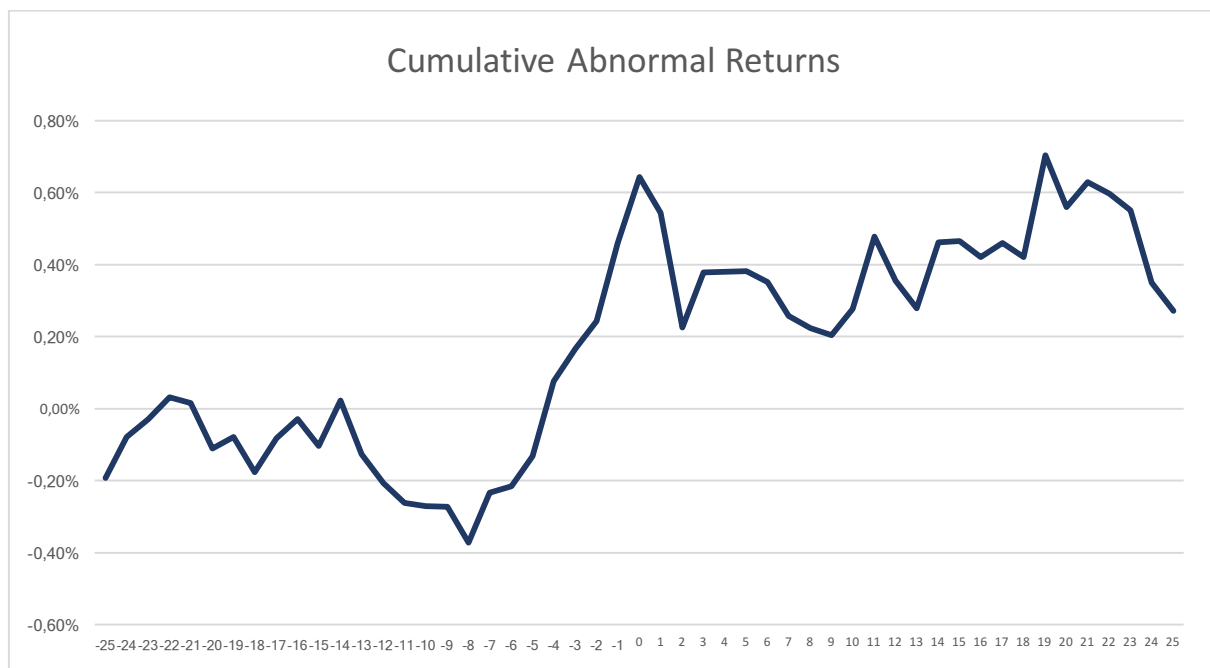


Figure 2: Cumulative Abnormal Return of 194 elections in 29 OECD countries

First, the period preceding the event is accompanied by negative abnormal returns, which mean that the indices are performing less than what we could expect from the result of the past year, during the control period. An important decrease in return is notifiable during the period from 14 to 8 days preceding the election. It could highlight the fact that approaching

the election, the voting population begins to take their decisions and that market polls cannot correctly predict the outcome of the election.

Second, it seems the effect is generally reverse eight days before the election as the abnormal return strongly increase to finally reach a peak on election day. This result is consistent with the uncertain information hypothesis of Brown et al (1988) and confirm the work of several authors such as Pantzalis et al. (2000) that states stock market prices generally rise during the two weeks preceding a general election. Since political uncertainty decreases with the decision making of the voting population, the market participants can cast their investment and are more confident in the future outcome, which leads to an increase in the valuation of the assets.

Finally, the post-election period is characterized by high abnormal returns during, a least, the month following the election. The market investors are now certain about the outcome and the only uncertainty that still exists concern the formation of the new administration and the first actions of the new head of government. Still, it seems these high abnormal returns tend to decrease on a longer term period, after 21 trading days.

Event windows significance in relation with elections characteristics

The following Table 3 helps us to identify the significance level of the election at different windows level.

The statistical significance is calculated at *10 **5 and * * *1 percent level. These value are based on p-values from the t-test. The different event windows are listed for election characteristics, and the values are denoted in percentage numbers.

	AR Day t	CAR(-2,2)	CAR(-5,5)	CAR(-10,10)	CAR(-25,25)
All Elections	0,182	0,057	0,597	0,538	0,272
Left wing party	-0,21	-0,65*	0,268	-0,25	-0,23
Right wing party	0,603***	0,815**	0,948*	1,386*	0,812
Parliamentary	0,149	0,058	0,329	0,419	0,075
Presidential	0,392	0,055	2,331**	1,308	1,543
Holds a majority	0,124	0,065	0,965	0,955	0,069
Do not hold the majority	0,218	0,052	0,366	0,275	0,399
Positive margin of victory	0,582**	0,867	0,670	2,102*	2,015

Negative margin of victory	0,094	-0,12	0,581	0,194	-0,11
No Change in the orientation	0,308**	0,348	0,700	0,524	-0,21
Change in the orientation	0,007	-0,34	0,454	0,558	0,957
large number of party (>2)	0,214*	0,094	0,397	0,419	0,148
small number of party (<2)	-0,03	-0,19	1,951*	1,341	1,106
Early election	0,504	0,587	1,425	2,102	2,353
Normal called election	0,114	-0,05	0,422	0,205	-0,17
Compulsory voting law	-0,00	0,277	1,112	1,089	2,406
No compulsory voting law	0,222*	0,011	0,488	0,421	-0,18

Table 3: Significance level of the different event windows

First, even if the results are not significant for the entire sample, the effect of the elections are generally stronger during a shorter period around the event, either with a negative or positive cumulate abnormal return.

I. Party orientation CAR

When analyzing the characteristics of the events, it appears that the election of a left wing party has a significant impact on the valuation of the stock during the five days surrounding the event. The outcome of such party orientation affect negatively the stock price return.

The following evolution of the Cumulate Abnormal Return (Figure 3) clearly shows negative value during the period surrounding the election of a left wing party. However, approaching the event, when election polls become more and more precise, the negative abnormal return starts to decrease and the CAR on the day preceding the event reach a positive value of 0,04%.

It seems not to be sufficient enough as the negative abnormal returns start again to increase after the election. This result is inconsistent with both partisan model and PCB theory that states returns are negatively affected after the election of a Republican candidate. These two theories are based on a longer term relationship and indeed, the market has to wait 20 trading to finally come back to normal. Following this period, the return seems to follow the expected trend that is calculate with the control period.

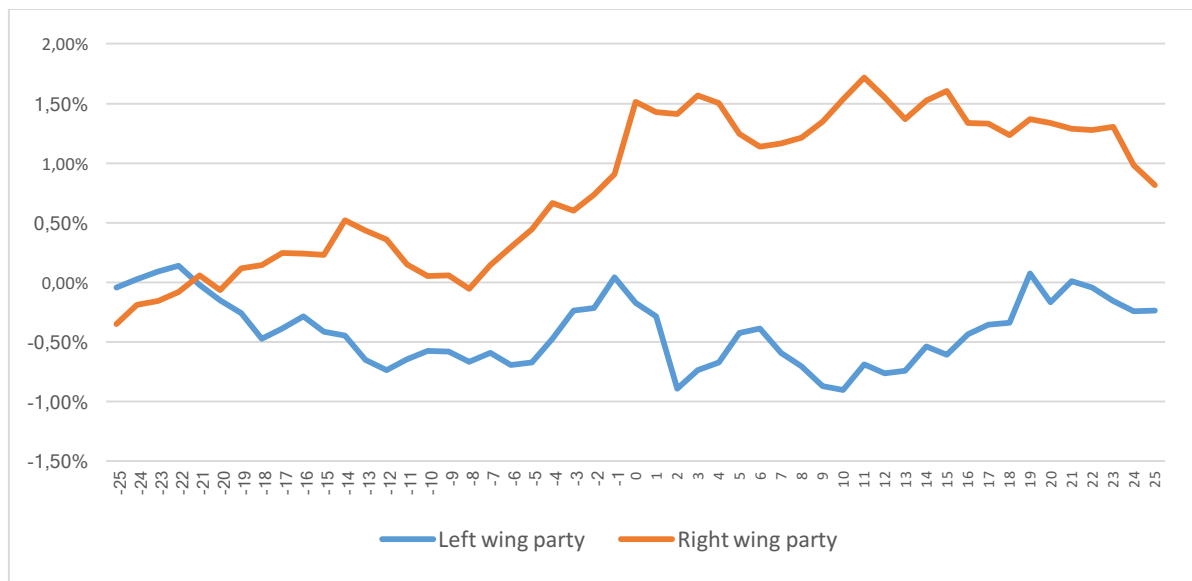


Figure 3: Cumulative Abnormal Returns classified by Party orientation

However, the results are consistent with the other side of the literature, Niederhoffer et al. (1970) and Riley and Luksetich (1980), that states Republican party victory positively affect the market on a short term basis.

Indeed, looking at the event window significance, the market shows strong significant abnormal return at the election day but also during the short period around the election, and in particular the twenty days period $(-10,10)$. Even if the abnormal returns are already positive before the event, it increases sharply during the eight days period preceding the election. The first peak of the cumulative abnormal returns is reach at day “zero” and it stays around 1,50 % for a period of 23 trading days until it decreases.

II. Political system CAR

The next significant value to underline is related with the political system. The elections have a significant impact on the short term abnormal return around the voting day, in particular during the period from five days prior the election until five days after $(+2,331\%)$.

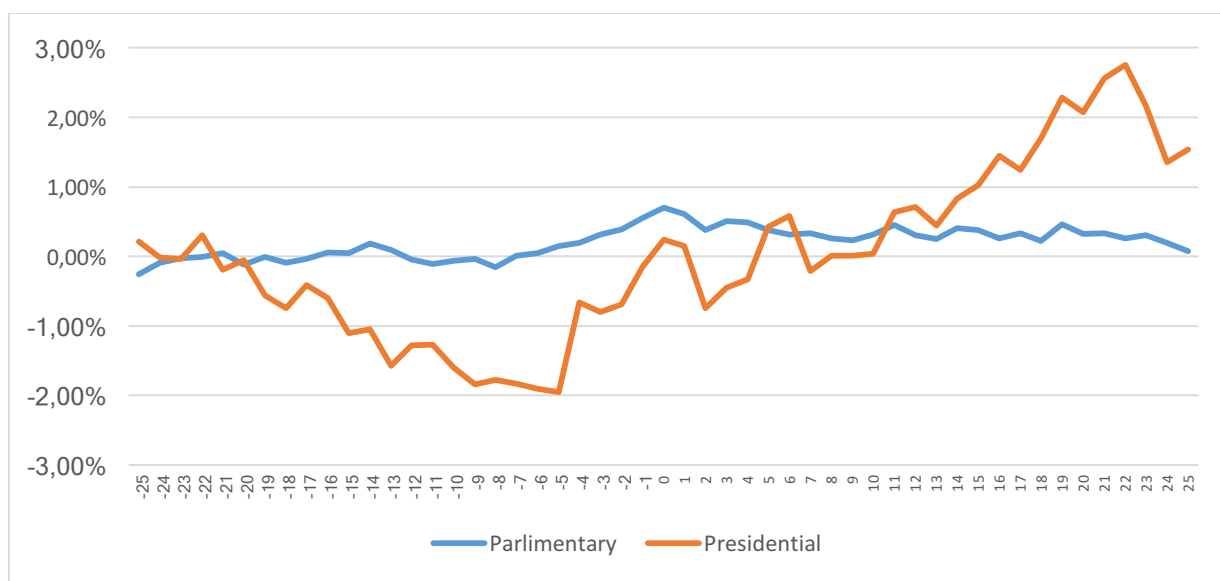


Figure 4: Cumulative abnormal returns in different political systems

On a longer term basis, the previous Figure 4 clearly shows the difference in the evolution of both Presidential and Parliamentary political system. The Parliamentary system cumulative abnormal return is more constant and do not excess more than 1.00% in comparison with the expected return calculate on the control period. Nevertheless, there is still a peak on election day and keep a positive value until the end of the 25 trading days period.

Regarding the evolution of the presidential system cumulative abnormal return, it is not constant. Even if only the 11 days period (-5,+5) has a significant CAR, the graph clearly shows that election have more impact on the valuation of the stock during presidential run. The first period, from 25 days until 5 days before the election, the effect on election is negative, the expected returns are overestimated. The significant increase starting from -5 does not cease until reaching a peak 22 days after the election. The market participants seem to take positive actions when the voting polls are more certain and when the future economic policy orientation is clearer.

III. Minority government CAR

No significant results have been found regarding the difference between majority government and coalition government. It seems the following evolution in Figure 5 are not due to this factor.

There is not clear effect of the number of seats in the parliament, and it seems this number do not influence the abnormal return after the election.

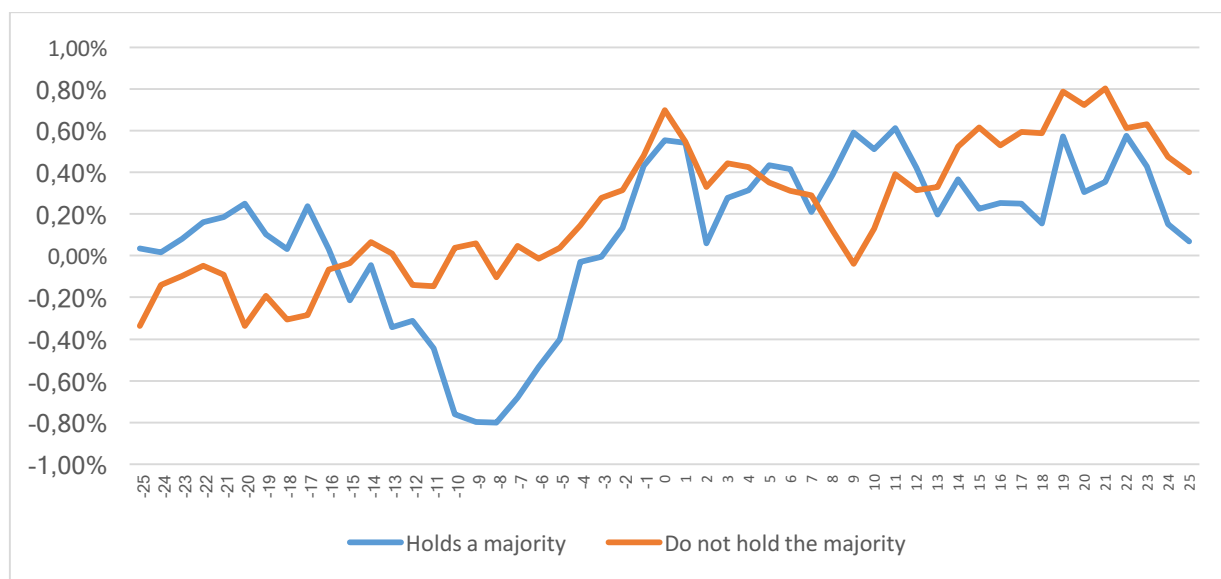


Figure 5: Cumulative abnormal returns of Majority of a minority factor

IV. Percentage of victory CAR

The fact that the party elected have a positive margin of victory has a significant impact on both the abnormal return on the election day and the evolution of the cumulative abnormal return during the 21 days period (-10;+10).

The following figure 6 clearly shows that when the candidate has a positive margin of victory during presidential or parliamentary election, the return is abnormally high during the period following the outcome.

In both cases, there is a period of low abnormal return preceding the event which is followed by an increase of these returns during the short period of ten days. There is a peak on the election day. If in case of negative margin, the abnormal returns stay around 0,00% during the period following the event, meaning that the returns are the normal returns expected from the control period, in case the candidate wins the election with a positive margin of victory, the abnormal return keep increasing during the month following the election. It is probably due to the fact that a positive election means a greater influence inside the government, and

with a bigger influence come a decrease in the uncertainty of the future economic policy, the market participants are confident in their investments, and it is reflected in the stock prices.

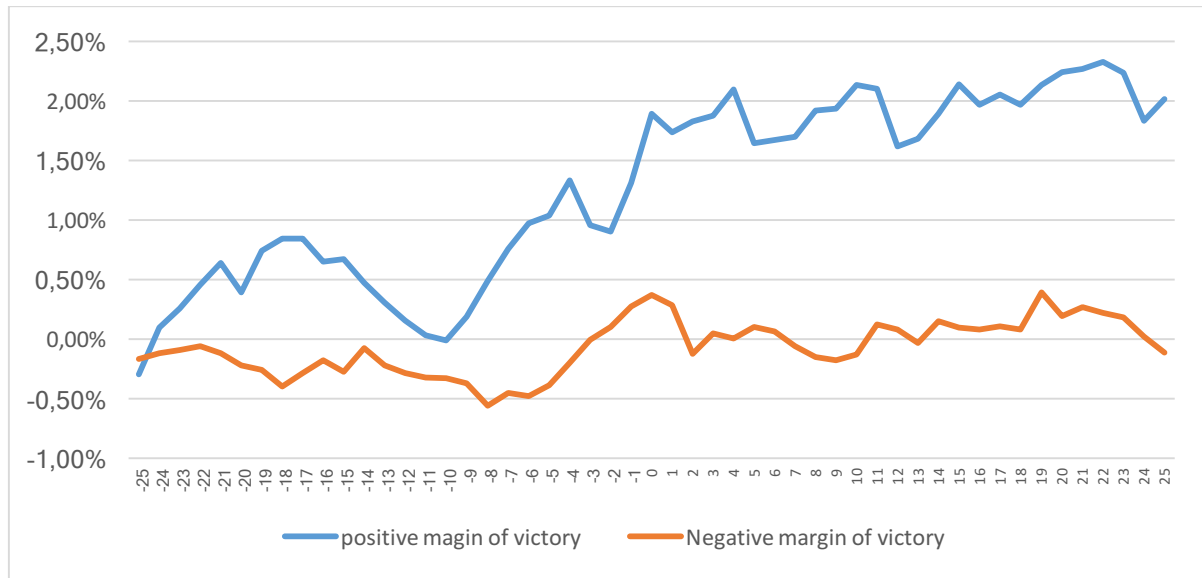


Figure 6: Cumulative abnormal returns depending on percentage of victory

V. Orientation change CAR

When analyzing the significance level of the orientation factor, the result shows that the fact the candidate elected belongs to the same party than the previous politic cycle influences the return around the election and in particular the abnormal return on election date.

Indeed, it appears that the reelection of a same party has a positive influence on the market on day 0. In addition, the abnormal returns keep this positive direction until four days after the results. The investors seem confident regarding the continuity with the same growth and economic policy.

Both evolution start with the same evolution and start to increase as usual around eight to five days before the election. However, the fact that the party elected change from previous political cycle have a stronger positive influence on the abnormal return. Already 2 days before the outcome, when the polls are more precise, the market incorporate the prediction with a positive reaction.

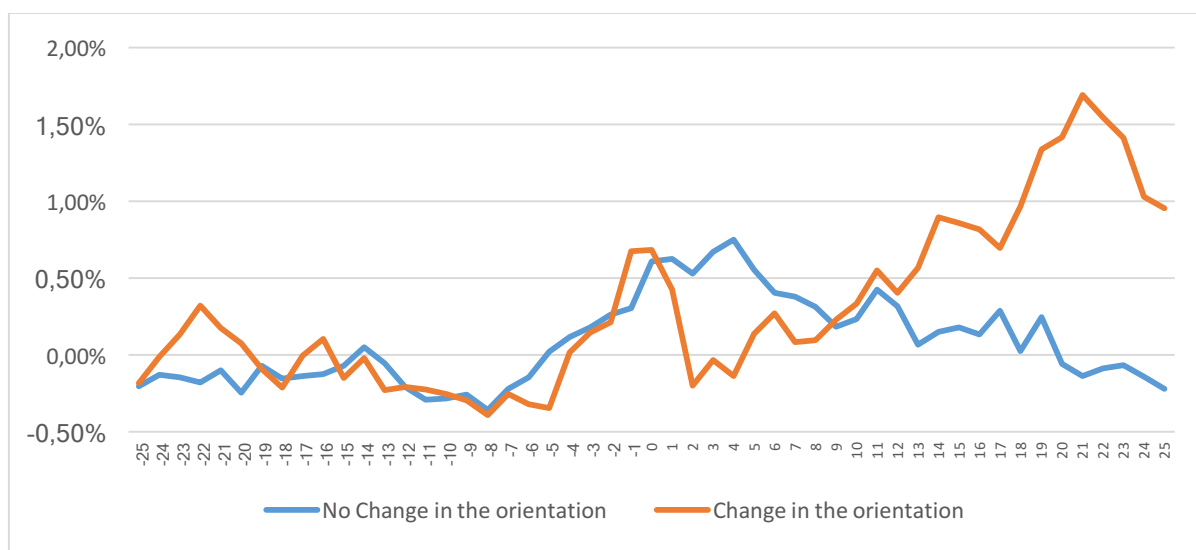


Figure 7: Cumulative abnormal returns and political changes

If on one hand, the announcements following the election, during the next 5 days period, have a negative impact of the returns; the market participants doubt about the future economic policy and the uncertainty is still present. On the other hand, a longer term basis, the abnormal return keep increasing until they reach a peak the month following the results, the investors have now all the elements to reduce the uncertainty regarding the next political cycle.

VI. Number of party CAR

The number of party that compose the government seems to influence the variability of the abnormal returns.

Indeed, when a government has only two political parties, one leading the government and one opposition, the market participant seems to be less confident in the outcome of the economic policy.

First, prior the elections, it appears that a large number of party reduce the uncertainty and reduce the variation in the abnormal return. The cumulative abnormal returns follows more or less what is expected, based on the control period. In case of a restricted choice, it appears the investors are less confident and react negatively in front of the available information accessible on the market. The abnormal returns start to be positive during the short period preceding the event, certainly due to the higher precision of the voting polls.

In addition, the eleven days period (-5, +5) around the election is significant, mostly due to the restricted possible scenario due to the limited number of candidate.

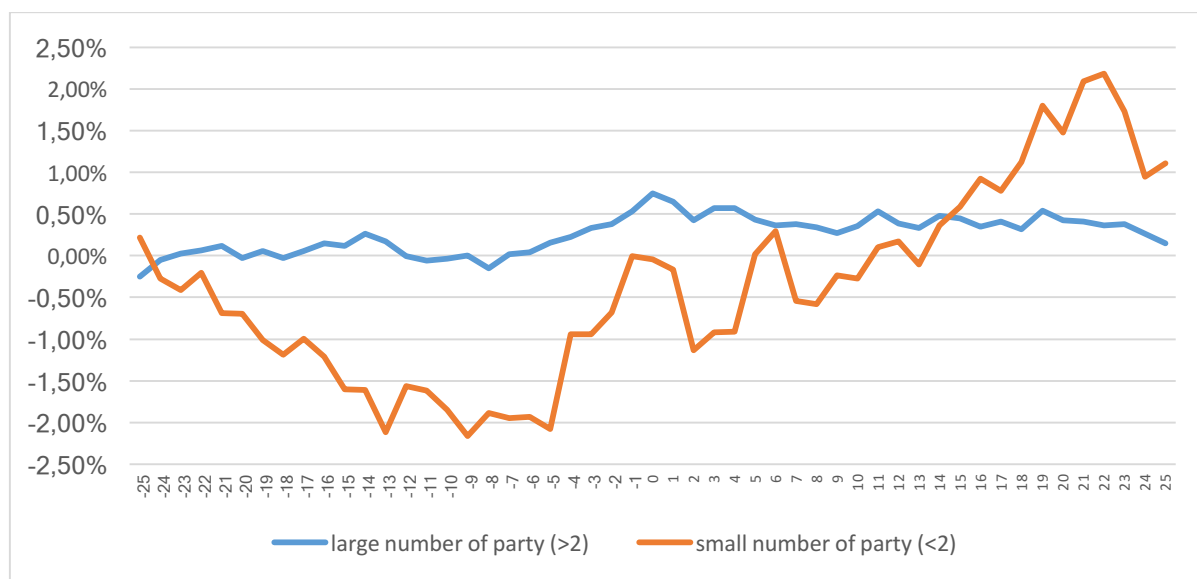


Figure 8: Cumulative abnormal returns and the number of party composing the government

However, in contrary with the election where a large choice of candidate is possible, a small number of party reduce the uncertainty and so the abnormal return in around zero on the Election Day, the expected return is the real return.

With a large number of party, the election outcome has a bigger part of uncertainty and this element of surprise result in a positive abnormal return on Election Day.

VII. Anticipated elections CAR

Even if no significant results characterize the two following evolutions in figure 9, it is clear that elections that are called normally tend to have less abnormal returns than early elections.

Indeed, except on the period around the event where there is a positive abnormal return, the stock price returns around normal called elections variate between small negative value before the event, and small positive value after.

On the contrary, the evolution of the cumulative abnormal return of early called election seems to highlight that market participants react positively to early elections. The abnormal

returns are positive on average during the 51 days period around the elections date, and seems to stabilize 17 trading days after the results.

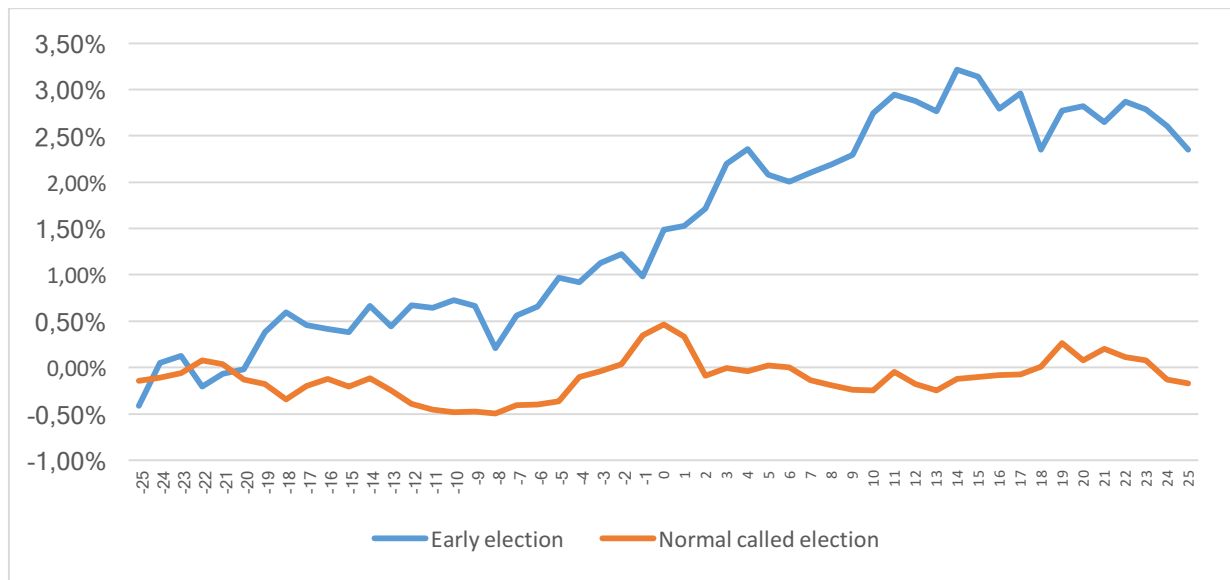


Figure 9: Cumulative abnormal returns and anticipated elections

VIII. Voting system CAR

The two following evolutions of the cumulative abnormal returns, in either countries that impose compulsory voting or countries without mandatory voting laws, reveal no significant result at the exception of the abnormal result on the election day in the non-mandatory voting law countries.

The evolutions have approximatively the same trend, with positive abnormal return during the short period preceding the votes, and negative abnormal return during the post-election period.

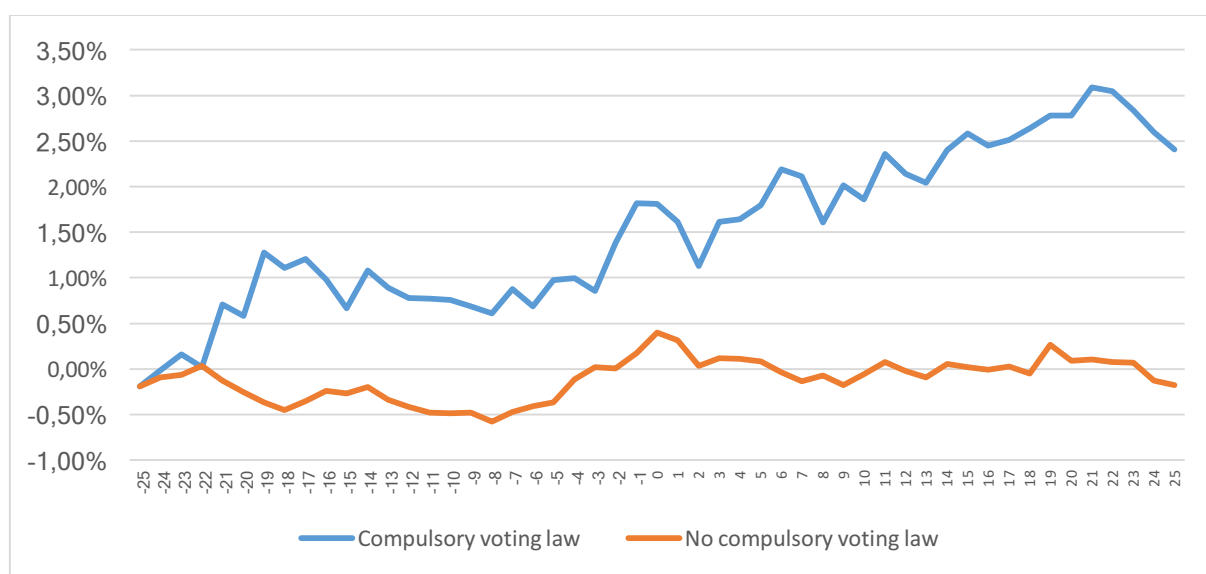


Figure 10: Cumulative abnormal returns and the voting system

Cumulative abnormal returns in specific countries

I. General result countries

The following Table 4 helps us to identify the significance level of the election at different windows level in the specific OECD countries.

The statistical significance is calculated at *10 **5 and * * *1 percent level. These value are based on p-values from the t-test. The different event windows are listed for every country, and the values are denoted in percentage numbers.

	AR Day t	CAR(-2,2)	CAR(-5,5)	CAR(-10,10)	CAR(-25,25)
AUSTRALIA	0,629	1,177	1,749	2,084	5,139*
AUSTRIA	-0,15	-2,24*	-0,37	-2,77	-7,74**
BELGIUM	0,149	-0,70	1,121	1,568	1,988
CANADA	0,855**	-0,95	-0,39	-0,94	-4,53*
CHILE	0,569	2,414**	2,026	4,487**	6,539**
CZECH REPUBLIC	0,808	1,823	-1,10	0,766	-0,80
DENMARK	0,647	-0,83	-0,28	1,290	-0,66
FINLAND	-0,54	-1,08	0,186	-0,14	-0,43
FRANCE	0,067	-1,20	-1,83	-1,05	-4,35
GERMANY	-0,05	0,476	-0,87	-2,03	-3,64
GREECE	-1,88	-1,51	-0,94	-2,39	-0,68
HUNGARY	1,327	1,829	2,500	7,785*	4,152

IRELAND	1,288**	2,286**	2,637	2,095	3,677
ISRAEL	0,338	-0,21	0,533	2,598	1,700
ITALY	2,180***	2,031**	1,807	2,685	-1,63
JAPAN	-0,05	-0,58	-0,21	-0,45	-1,84
KOREA	-2,20*	-8,73***	3,607	-7,79	-7,29
MEXICO	3,472***	5,212***	6,692**	10,08***	7,687
NETHERLANDS	0,319	-0,34	-0,20	0,329	0,155
NEW ZEALAND	-0,45	-2,39**	-2,91*	-4,32*	-6,23
NORWAY	-0,49	-0,11	-0,02	-1,14	-1,36
POLAND	-0,10	-0,33	-0,08	-0,21	1,997
PORTUGAL	-0,31	0,736	0,807	2,812	0,594
SPAIN	-1,33***	-1,61*	-1,22	-2,26	-3,35
SWEDEN	-0,00	-0,01	-0,04	-2,03	-0,26
SWITZERLAND	-0,42	-0,14	-0,51	-0,79	1,171
TURKEY	2,907**	5,915**	7,422**	10,21**	18,43**
UNITED KINGDOM	0,410	1,565**	1,266	1,234	1,451
UNITED STATES	-0,76	1,172	-0,01	1,872	1,452

Table 4: Significance level of the different event window in specific OECD countries

From the previous table, I can state that the abnormal returns really depend on the specific country. Both industrialized and emerging countries can have either positive or negative CAR during the different event periods.

Election periods have a negative impact on the performance of the stocks in seven countries (Austria, Greece, Japan, New Zealand, Norway, Spain and Sweden). In these states, the economic conditions and the future economic policy do not assure a better future situation to the financial market, and this uncertainty is reflected in the stock prices.

On the contrary, in the following countries; Australia, Chile, Hungary, Ireland, Mexico, Turkey and United Kingdom, the elections have a positive impact on stock market at both short and long term.

On the Election Day the outcome has a strong and positive significant impact on the stock price in particular countries such as, Canada, Ireland, Italy, Mexico and Turkey. On the contrary, in Korea and Spain the elections have generally a negative significant impact on the stock market.

If we compare the four different time periods of the cumulative abnormal returns, we can observe that the effect of the general elections is stronger in time dimension. Indeed, on a

longer term and concerning both the negative and the positive impact of the elections on the stock prices, the effect in increasing and reinforcing with time.

II. CAR around G7 general elections

The Group of 7 (G7) is a composed of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. The International Monetary Fund reports these countries as the seven major advanced economies in the world, they represent more than 64 percent of the net global wealth.

For these reasons, it is interesting to analyze the election impact on such powerful states, see the following graph (Figure 11).

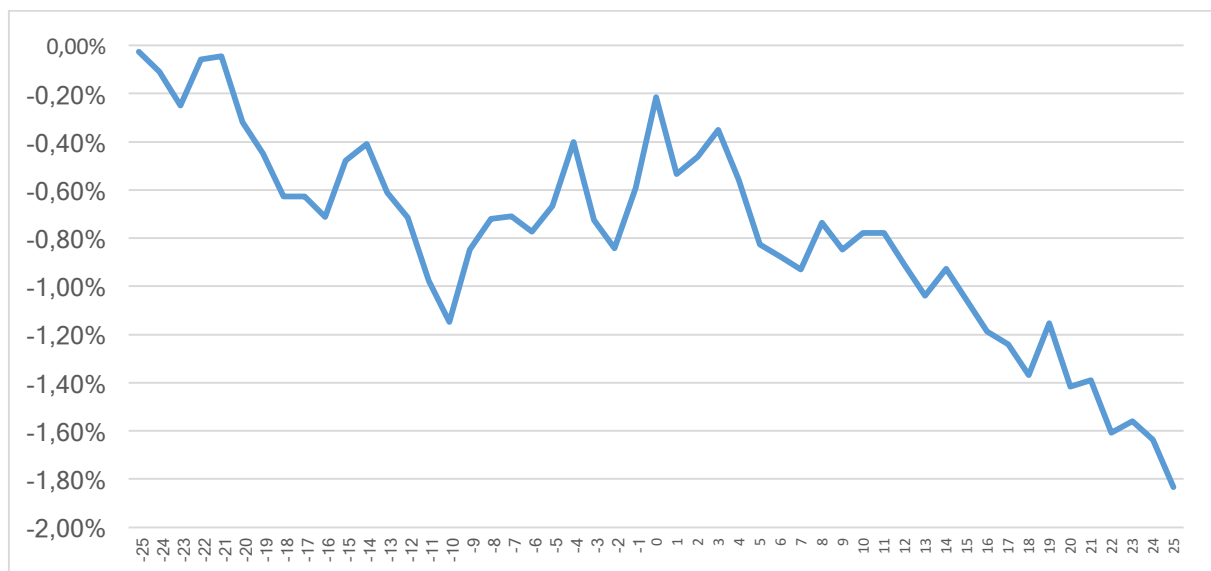


Figure 11: Cumulative abnormal returns around G7 countries elections

On the long term, it seems elections have a strong negative impact on the stock prices. Considering the market participants have access to all the information in order to elaborate their investment strategy, it means that the elections outcome were not favorable to the financial market on a long term basis.

However, analyzing the short term period around the election it can be observed that market participants switch their mind two weeks before the election. Indeed, the abnormal returns start to be positives 10 trading days before the elections, a first peak is reach one week before the event to finally decrease for two days.

Two days before the event, the investors seems to be confident in the election outcome as the abnormal returns increase sharply until the Election Date.

However, the period following the event is characterized with strong negative abnormal returns.

III. US 2016 election: the effect of Donald Trump victory on the stock market

The victory of Donald trump in 2016 during the US Presidential Elections represents well the situation described by Bialkowski and Al. in 2008 regarding their analysis of the element of surprise.

Indeed, the following figure clearly shows that Donald Trump election is characterized by strong positive abnormal returns. In particular, the significant cumulative abnormal returns periods show that the election positively impacted the stock market on a short term basis.

		AR Day t	CAR(-2,2)	CAR(-5,5)	CAR(-10,10)	CAR(-25,25)
UNITED STATES	8/11/16	0,0071	2,1077**	2,5622*	2,5456	2,5152

Table 5: Significance level of the different event window around 2016 US Election

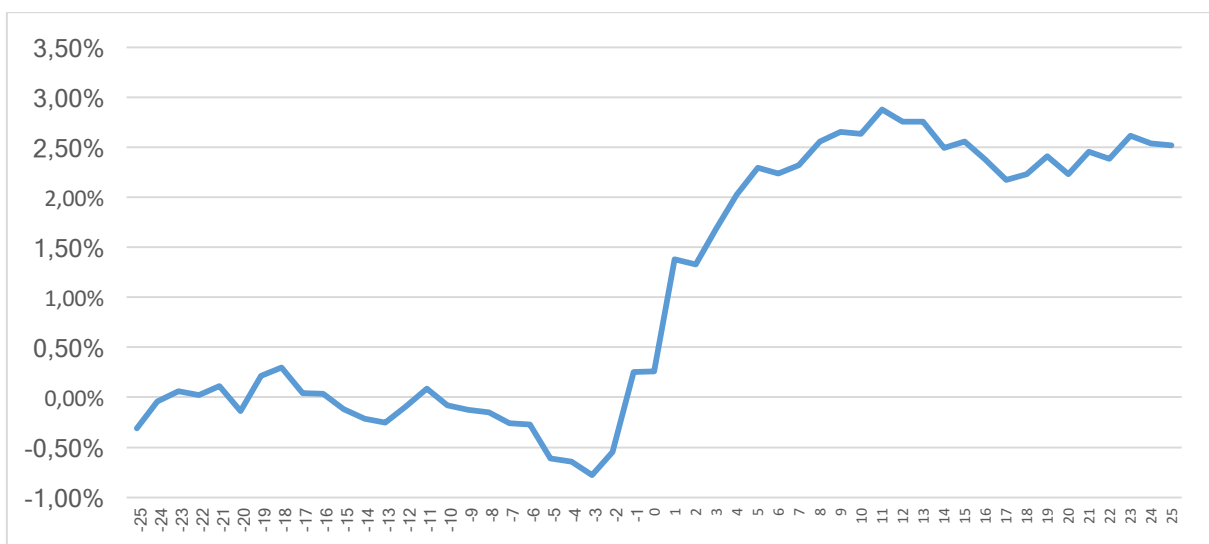


Table 6: Cumulative Abnormal Return of the 2016 US Election

Following the evolution of the graph, abnormal returns were weak during the month preceding the event. Five days before the elections, when some votes were already counted and that voting polls already gave Donald Trump as the potential winner, the market returns

started to increase. The peak of the cumulative abnormal return is only reach 2 weeks after the Election. During these 10 trading days, the market participants reacted positively to the republican victory but the highest significant abnormal return are observed during the week that follows the election.

IV. Focus on a particular country: Italy

When analyzing the results I could observe that the abnormal returns around the national elections were influence by several factors such as the political party orientation or the specific country. To highlight these observations, the following table 7 and figure 12 give both analytic and visual representations of these influence with the example of elections in Italy between 1989 and 2016.

	5/04/92	27/03/94	21/04/96	13/05/01	10/04/06	14/04/08	25/02/13
Party orientation	1	1	0	1	0	1	0
Political system	1	1	1	1	1	1	1
Majority of a minority	1	1	1	1	0	0	0
Percentage of Victory	-44,00%	-14,00%	-16,00%	-4,00%	-0,40%	-6,38%	-40,90%
Number of Parties	12	12	12	12	12	7	8
Orientation change	0	0	1	1	1	0	1
Anticipated Election	0	0	0	0	0	0	0
Voting system	0	0	0	0	0	0	0
Stock Exchange	0	0	0	0	0	0	0
Log Population	17,85	17,86	17,86	17,86	17,89	17,91	17,93
Log GDP per Capita	10,36	10,37	10,41	10,51	10,54	10,53	10,42
AR Day t	-0,158	4,9590***	6,1170***	0,9133	1,2294**	-0,256	2,4627*
CAR(-2,2)	3,4539	9,5715***	7,9328***	-0,312	-1,093	-1,079	-4,250
CAR(-5,5)	3,0668	16,441***	5,2752	-4,984	0,4153	0,2234	-7,785*
CAR(-10,10)	2,1182	19,241***	12,317**	-5,714	-0,377	0,1151	-8,900
CAR(-25,25)	-4,202	20,711**	9,4777	-14,15**	4,1419	-5,127	-22,29**

Table 7: Descriptive information and significance level of the different event window around Italy Elections

Three different variation trends are observable, strong positive abnormal returns, strong negative abnormal returns, or small variation of abnormal returns.

Observing the election of 27/03/1994 and 21/04/1996, we can see that the two cumulative abnormal return evolutions show strong significant positive abnormal returns. Even if the second election represent a left wing party victory, the CAR is still significant and positive.

It clearly shows that the outcome of the election impacts the stock market price but not only. The fact that the election in 2001 elects a right wing candidate is not sufficient to obtain positive abnormal return comparable to the 1994 election. Moreover, the right wing candidate, Silvio Berlusconi, is the same winning candidate in both elections. These observations let me think that other variables are needed in order to explain the reaction of the market participants, the different factors explained earlier are not sufficient.

In addition to this comparison, I also highlight the strong significant abnormal return on the day of the election of Romano Prodi, in 1996, a center left candidate. Furthermore, the fact that the market did not react in the same way at its reelection in 2006 reinforce the idea of other variable influencing the behavior of investors, even if, it is clear that elections have a significant impact on the stock returns.

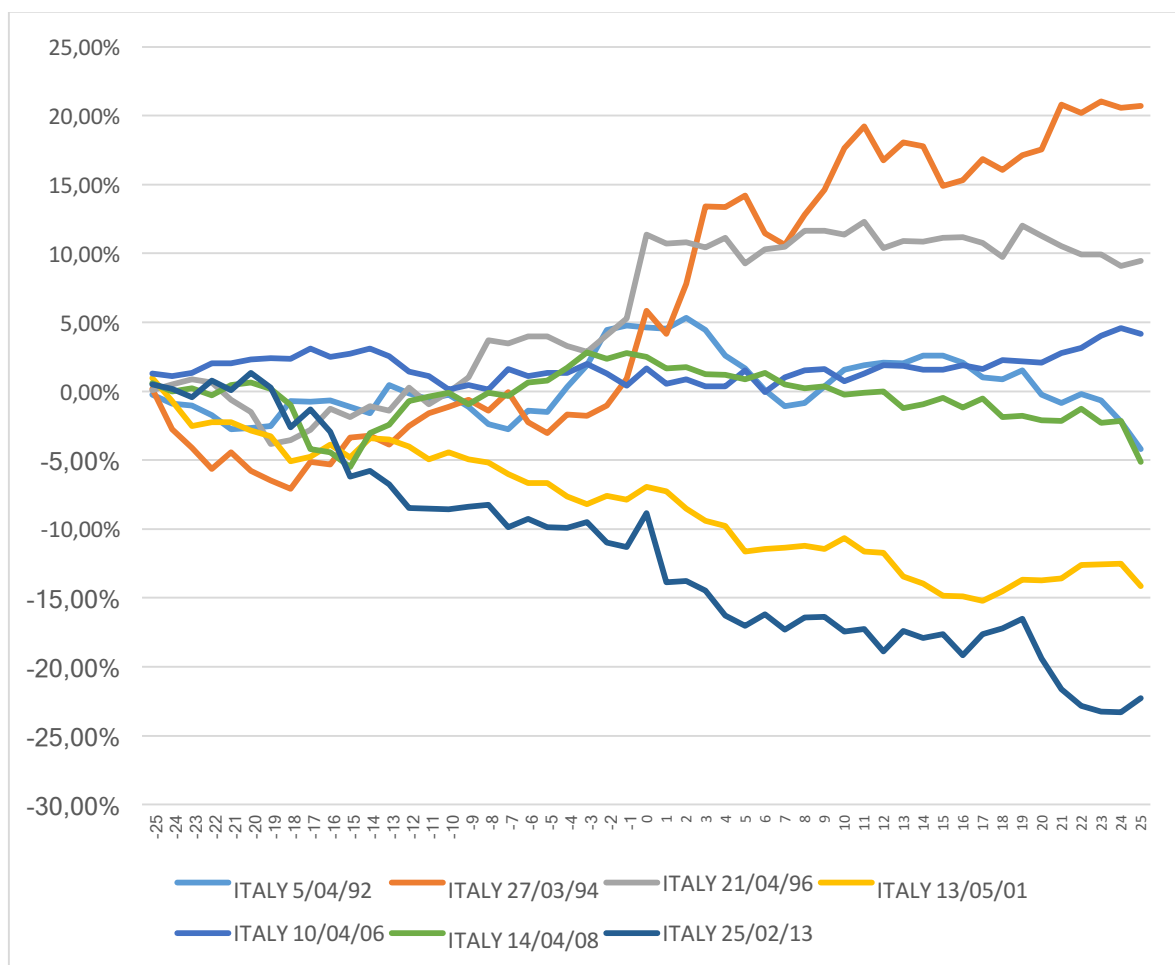


Figure 12: Cumulative abnormal returns of elections in Italy between 1989 and 2016

Regression analysis

I. Coefficient value

The following table 8 gathers the results regarding the regression analysis which includes the compound abnormal returns on different event windows calculated using the market model approach as dependent variable.

	-25 days	-10 days	-5 days	-2 days	Event day	+2 days	+5 days	+10 days	+25 days
Constant	(0,0211)	(0,0526)	(0,0342)	0,0341	0,1070	0,1356	0,2140	0,2495	0,4023
Party orientation	(0,0031)	0,0010	0,0077	0,0018	0,0073	0,0110	0,0033	0,0072	(0,0115)
Political system	(0,0047)	0,0160	0,0173	0,0017	0,0070	0,0137	(0,0045)	0,0097	(0,0115)
Majority of a minority	(0,0037)	0,0045	0,0021	(0,0008)	0,0036	0,0038	0,0017	0,0005	0,0170
Percentage of Victory	(0,0051)	(0,0125)	0,0205	(0,0008)	0,0169	0,0217	0,0102	0,0122	0,0165
Number of Parties	0,0002	0,0018	0,0023	0,0034	0,0036	0,0041	0,0043	0,0044	0,0051
Orientation change	(0,0005)	(0,0013)	(0,0011)	(0,0047)	(0,0055)	(0,0136)	(0,0141)	(0,0111)	(0,0094)
Anticipated Election	(0,0017)	0,0098	0,0072	0,0086	0,0040	0,0091	0,0149	0,0216	0,0229
Voting system	0,0006	0,0143	0,0154	0,0139	0,0161	0,0152	0,0190	0,0213	0,0317
Stock Exchange	(0,0042)	0,0105	(0,0022)	0,0075	0,0073	0,0004	0,0019	0,0035	0,0092
Log Population	0,0013	0,0049	0,0017	0,0049	0,0057	0,0069	0,0061	0,0087	0,0104
Log GDP per Capita	0,0005	(0,0071)	(0,0030)	(0,0141)	(0,0227)	(0,0282)	(0,0328)	(0,0423)	(0,0590)

Tableau 8: Regression analysis of the explanatory variables

None of the result is significant and no conclusions can be taken from this regression.

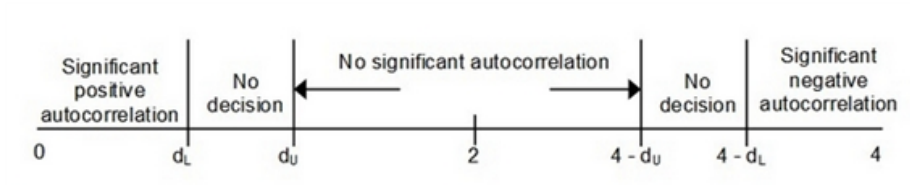
However, some observation can be made. The fact that the Orientation Change influence negatively the stock price is consistent with the result we found earlier. Moreover, it seems that most of the factor have a positive effect on the valuation of stock price return on Election Day.

II. Autocorrelation

In order to test the daily returns independence - i.e. to check the presence of any autocorrelation - we performed a Durbin-Watson test in order to assess the dependence of the elections. DW tests that the residuals from these regressions are independent or not.

The interpretation of the Durbin-Watson test implies to check if either DW stats value are within a certain range or not. Given the number of observations (199) and the fact that 11

estimators are used, we calculated the autocorrelation boundaries - thanks to the DW table - for the Durbin-Watson test, as illustrated below:



where $d_L = 1.66360$ and $d_U = 1.87422$

Results appears to prove there's no autocorrelations for any of the elections considered.

In addition, a second observation has been conducted, based on the analysis of the residual distribution. We did not find any pattern that would have led us to conclude to any form of autocorrelation.

The overall results of our independency analysis clearly showed there's no autocorrelation in stocks/indices returns around the elections, tending us to affirm our data is independent. As this fundamental condition of the linear regression model is well respected, we could consider our estimators as BLUE in regard with the independency assumption.

Application for investors

Forecasting stock market trends

The previous results highlighted the difficulty to forecast the stock market trends during both presidential and parliamentary elections.

Several authors try to identify the opportunity and investment strategies around these elections but forecasting the stock market reaction is a hard task to do and it became in the last few years the most complex task of an analyst.

Indeed, anticipation is key in order to generate profits and market forecasting is built to help traders to identify the type of security, the position, the timing and finally the amount of the trades they are placing on the market.

The professionals of forecasting such as market analysts or traders can use two different categories of trading analysis, technical analysis or fundamental analysis. Even if the way of using the available information is different, the two techniques are based on the same type of data such as investment charts or analytical data.

In both cases, the trading strategies consider that if the future fluctuation of the market is known without too much doubt, the market participants can manage their portfolios in coherence and thus benefit from the prediction of certain stocks in particular or the global financial market in general.

On one hand, the technical analysts use financial charts in order to forecast the trends, by establishing patterns based on historic market data. On the other hand, fundamental analysts study the intrinsic value of a security and compare it with the current value, if the intrinsic value is greater than the current value they invest in that security.

Benefit from political outcome

In the context of elections the authors such as Pantzalis and Al (2000) also study the variation of the abnormal return and confirm the results found supra. Indeed, they document that

specific voting period can benefit from investors and that market participant generally react positively to the outcome of the election.

They state that the best scenario would be in the context of early called election, when a small party from the opposition win the election inside a more authoritarian country. In the previous context, it would be possible for the investors to highly benefit from the political risk.

But it is not the only study to confirm our findings regarding the potential gain of investment strategies around national elections. On a longer term basis, Booth and Booth (2003) show that growth and positive profits depend on several variables, and that the second half of the presidency is characterized by significant increase in the result of the stock market.

Trading strategies

With their past experience and with the wide branch of literature describing the volatility and abnormal returns, the stock analysts are now aware of the uncertainty that drives the market during national elections. Moreover, they realize that if they include this information into their investment strategy the financial options prices will fluctuate in consequence.

Indeed, the relationship between the option pricing and political risk have also been document by several authors several years ago. In 1992, Gemmill analyzed the election of 1987 in the United Kingdom and observe the strong interdependence between options market and the economic and strategic issues if one or another party wins the elections.

In addition, Białkowski and Al (2008) confirm the statement of Gemmill, saying that options prices tend to be higher during the period preceding the election, when the population take their last decision before going to the ballot box. Their study of implied volatility around national election also highlight that option trading strategies based on volatility can be lucrative. They indicate that even if the investors generally forecast the outcome of the election, there is still a place for uncertainty, so that strategies such as buying straddles and strangles during the short period prior the elections can be benefic.

Moreover, more and more derivatives instruments have been build base on the uncertainty created by the election and political event. These instruments mostly use the volatility around the event and let traders take positions on bet regarding their variation level.

The different derivatives products are available on both exchange and off exchange. More and more products are built in response to this opportunity of investment and to give some examples of these derivatives, variance and volatility swaps are the most popular among the investors due to the fact that these last products are easier to hedge.

In addition, with their recent boom, the trading strategies also take into consideration the different exchange trading funds (ETFs) as they are exposed to imbedded volatility since they replicate the fluctuation of the market. Portfolio managers tend to counterbalancing the political risk and lower the magnitude of the fluctuation by insuring themselves with derivatives.

Finally, the benefit generated by hedge funds thank to arbitrage strategies are generally more sensitive to uncertainty. Since uncertainty is well present around national election and that arbitrage strategies are generally characterized with leverage investment, a small change in the market fluctuation can have significant impact on profits, on both national and international level, it is therefore even more important to analyze the reaction of the market around political ballot.

Discussion and conclusion

This research documents the interactions between stock market and politics by focusing on stock market abnormal returns around national election of 29 OECD countries.

The relationship between national elections and stock market abnormal returns, measured with the event study method, provide empirical results that confirm the impact of political change on stock market price.

Indeed, the results are consistent with the finding of Goodell and Vähämaa (2012) who support the political uncertainty hypothesis. Since a great part of the uncertainty concerning the future government policy is resolved on election day, the abnormal return analysis shows that investors are still surprise by the outcome and adjust their positions in coherence. Their adjustments can be either positives or negatives depending on the several characteristics of the election and country.

Indeed, the statistical results show that elections have, in most of the case, a significant impact on stock returns, both on a long and short term basis. More precisely the study shows that three different period of election time have a significant impact.

The first significant period starts approximatively three weeks before the election, and is characterized with negative abnormal returns. It could highlight the fact that approaching the election, the voting population begins to cast their vote so market polls are not entirely reliable, this uncertainty about the outcome of the election can be the reason of such differences with the expected returns.

Second, it seems the effect is generally reverse eight days before the election as the abnormal return strongly increase to finally reach a peak on election day. This result is consistent with the uncertain information hypothesis of Brown et al (1988) and confirm the work of several authors such as Pantzalis et al. (2000) that states stock market prices generally rise during the two weeks preceding a general election. Since political uncertainty decreases with the decision making of the voting population, the market participants can cast their investment and are more confident in the future outcome, which leads to an increase in the valuation of the assets.

Finally, the post-election period is characterized with positive abnormal returns during, at least, the month following the election. The market investors are now certain about the outcome and the only uncertainty that still exists concerns the formation of the new administration and the first actions of the new head of government. Still, it seems these high abnormal returns tend to decrease on a longer term period, after 21 trading days.

Regarding the different explanatory variables, despite the fact that none of the regressions analysis are significant, it seems several factors indicate a significant influence when we compared the different evolution of the cumulative abnormal returns.

Right wing party victory, no compulsory voting law and the reelection of a same party are the three main significant factors influencing positively the variation of abnormal return on election day. However, the results also show that the magnitude and orientation of the impact really depend on economic and political situation of the country during the year of the elections. It is why further analysis has to be made in order to really be able to forecast the market trend in different economic and political context.

The results also showed that the relationship between political event and stock market fluctuation is an important purpose to study as many financial products are built in order to profit from this relation. The potential benefit due to particular investment strategies are real since investing during time of uncertainty can be really profitable if the forecast of variation was accurate. However, investors have to be aware that betting investment during time of uncertainty is unsafe and that political risk is real.

Finally, this study provides insight for both market participant and academics regarding the stock market reaction in a context of political uncertainty during presidential elections. However, further research is needed in order to more precisely identify at which level, the different political outcome is influencing the decision making of stock market participants.

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Annexes

Annex 1: Significant level of event window around national election

The statistical significance is calculated at *10 **5 and * * *1 percent level. These value are based on p-values from the t-test. The different event windows are listed for every elections, and the values are denoted in percentage numbers.

Country	Date	AR Day t	CAR(-2,2)	CAR(-5,5)	CAR(-10,10)	CAR(-25,25)
AUSTRALIA	24/03/90	-0,372	-2,279	-0,570	0,0988	-7,693
AUSTRALIA	13/03/93	-2,653***	2,5890	3,3486	4,6194	15,289**
AUSTRALIA	2/03/96	-0,016	0,8831	-1,233	-0,605	1,4865
AUSTRALIA	3/10/98	0,5345	4,7525*	4,8626	2,8708	13,436
AUSTRALIA	10/11/01	2,2163*	3,3964	4,3905	4,5896	5,5158
AUSTRALIA	9/10/04	0,2053	2,1612	2,1553	4,9830	10,318*
AUSTRALIA	24/11/07	3,5403***	-2,310	-1,549	-6,615	-9,523
AUSTRALIA	21/08/10	0,7046	-1,092	1,9219	2,1994	7,3435
AUSTRALIA	7/09/13	0,8529	2,4085	3,3559	4,8897	10,531
AUSTRALIA	2/07/16	1,2853	1,2625	0,8123	3,8134	4,6948
AUSTRIA	7/10/90	0,6494	-4,170	4,8304	-1,086	-26,24**
AUSTRIA	9/10/94	0,3539	-1,085	-1,568	-5,738	-9,194
AUSTRIA	17/12/95	0,5807	0,5420	-0,127	0,1744	1,8380
AUSTRIA	3/10/99	0,2310	0,8266	2,0302	1,2373	-3,846
AUSTRIA	24/11/02	-0,016	-1,748	-0,803	0,8031	15,847**
AUSTRIA	1/10/06	-1,938**	-1,942	-1,469	0,3569	-1,047
AUSTRIA	28/09/08	-1,441	-12,14***	-8,576**	-18,73***	-36,34***
AUSTRIA	29/09/13	0,3236	1,7973	2,6804	0,8022	-2,947
BELGIUM	24/11/91	-1,264	-0,841	2,6633	9,2603**	14,464**
BELGIUM	21/05/95	0,4029	-0,832	0,7445	-2,783	-1,675
BELGIUM	13/06/99	-0,706	-1,220	2,4761	0,6256	-4,807
BELGIUM	18/05/03	-0,005	0,5773	1,1714	1,9973	-1,592
BELGIUM	10/06/07	0,8183	-0,209	-1,106	-1,004	-7,288*
BELGIUM	13/06/10	1,6536*	-1,710	0,7816	1,3176	12,831**
CANADA	25/05/14	0,5725	-1,057	-2,176	-4,462	-5,016
CANADA	25/10/93	-0,446	0,6074	2,1001	6,6819**	4,0217
CANADA	2/06/97	0,4754	2,0591	-1,865	-0,528	-2,482
CANADA	27/11/00	0,0005	-3,030	2,7333	1,1884	-24,21**
CANADA	28/06/04	-0,283	0,6248	3,1816	4,4382	5,7613
CANADA	23/01/06	0,9720	1,9754	3,5699	5,1887	-1,549
CANADA	14/10/08	7,4055***	-5,009**	-4,032	-15,48***	-9,481

CANADA	2/05/11	-0,165	-1,760	-3,110	-3,529	-5,341
CANADA	19/10/15	-0,834	-2,986**	-3,929*	-1,990	-2,540
CHILE	14/12/89	-0,035	10,344***	5,7176	9,9224	17,891*
CHILE	11/12/93	2,8165***	5,6297***	6,6674***	12,627***	27,292***
CHILE	16/01/00	1,3021	4,7517**	7,2326**	6,8709	7,5950
CHILE	15/01/06	-1,122	-2,993*	-3,763	-0,868	-4,759
CHILE	17/01/10	0,4709	1,4989	2,1870	4,0467	1,8734
CHILE	15/12/13	1,3874	0,6536	0,0766	0,8034	-1,577
CZECH REPUBLIC	20/06/98	2,1352	8,7303***	8,2836*	12,322*	4,2734
CZECH REPUBLIC	15/06/02	0,5967	-3,867	-3,283	-5,611	-13,26
CZECH REPUBLIC	3/06/06	-0,223	-1,197	-14,42***	-8,441	-6,754
CZECH REPUBLIC	29/05/10	1,6988	-0,038	-2,389	3,2230	4,6152
CZECH REPUBLIC	26/10/13	-0,163	5,4891**	6,3084	2,3415	7,1149
DENMARK	8/02/05	0,2363	0,8551	1,8655	4,8658	2,8025
DENMARK	13/11/07	0,0105	-3,821**	-0,756	2,0335	1,0072
DENMARK	15/09/11	1,7557*	-1,545	0,1604	1,6439	-8,856
DENMARK	18/06/15	0,5884	1,1784	-2,419	-3,382	2,3891
FINLAND	17/03/91	-1,460	3,1653	7,2543**	12,750***	17,426**
FINLAND	19/03/95	-0,820	-5,887**	-4,623	-7,044	-9,294
FINLAND	21/03/99	0,8358	0,1538	-2,408	-1,299	-12,00
FINLAND	16/03/03	-0,509	-0,751	6,0177	-0,701	-2,455
FINLAND	18/03/07	-0,511	-0,995	-0,573	0,0405	5,0590
FINLAND	17/04/11	-1,002	-2,084	-1,541	2,2926	2,8608
FINLAND	19/04/15	-0,346	-1,165	-2,822	-7,023*	-4,641
FRANCE	7/05/95	1,8668**	0,6562	0,6262	-3,299	-2,597
FRANCE	5/05/02	1,7794*	-1,219	-0,368	0,1955	0,0708
FRANCE	6/05/07	-0,369	-0,996	-0,454	-0,889	-1,876
FRANCE	6/05/12	-3,006	-3,279	-7,133	-0,214	-13,02
GERMANY	2/12/90	0,6586	0,8646	1,0150	-0,160	-6,486
GERMANY	16/10/94	1,5878*	1,3663	4,1148	2,9636	-3,462
GERMANY	27/09/98	0,2556	-0,262	-3,859	-9,358**	-8,639
GERMANY	22/09/02	-2,468**	0,3903	-7,643*	-10,37*	-6,362
GERMANY	18/09/05	-1,416***	-0,944	-2,421	-2,314	-2,456
GERMANY	27/09/09	1,1646	-0,023	0,4186	1,5742	0,5386
GERMANY	22/09/13	-0,172	1,9443	2,2627	3,4119	1,3373
GREECE	7/03/04	0,7153	2,3784	-5,280	-11,92**	-12,58
GREECE	16/09/07	1,2998	0,5587	1,5229	1,6041	4,9623
GREECE	4/10/09	-1,811	0,2692	6,0283	10,367	0,3045
GREECE	6/05/12	-5,114	-4,577	-9,663	-16,34	-21,65
GREECE	17/06/12	1,8718	14,446**	15,771	12,348	8,1005
GREECE	25/01/15	-7,879***	-25,47***	-17,42**	-15,85	-13,08
GREECE	20/09/15	-2,273	1,7591	2,4243	3,0447	29,179
HUNGARY	21/04/02	-0,709	-0,298	0,4125	10,350	4,0389

HUNGARY	23/04/06	2,4011	2,0541	4,2949	10,799	1,9311
HUNGARY	25/04/10	1,5693	2,1641	-1,128	-1,085	-4,334
HUNGARY	6/04/14	2,0511	3,3979	6,4222	11,078*	14,975
IRELAND	25/11/92	3,7224***	5,2924**	9,7227***	4,6160	7,9821
IRELAND	6/06/97	0,3855	3,2315**	0,7394	-0,661	1,6011
IRELAND	17/05/02	1,6408	0,2325	1,4438	6,7027	10,279
IRELAND	24/05/07	0,6754	2,2306	0,9399	-0,267	-4,275
IRELAND	25/02/11	0,2445	1,1093	2,9790	2,7339	15,344
IRELAND	26/02/16	1,0606	1,6197	-0,002	-0,551	-8,867
ISRAEL	29/05/96	0,0779	-2,871	1,3221	-0,241	-2,497
ISRAEL	17/05/99	0,9774	2,5303	0,9128	5,8301	7,2489
ISRAEL	6/02/01	0,3833	-4,418	-8,749	-2,942	-18,63
ISRAEL	28/01/03	-0,277	1,9698	0,2201	0,7524	3,3001
ISRAEL	28/03/06	0,0445	-3,336*	-1,787	-2,077	1,1045
ISRAEL	10/02/09	1,5141	2,5857	7,1084	8,6147	12,157
ISRAEL	22/01/13	-0,106	0,2785	-2,068	2,1151	1,2629
ISRAEL	17/03/15	0,0929	1,5389	7,3123***	8,7382**	9,6671
ITALY	5/04/92	-0,158	3,4539	3,0668	2,1182	-4,202
ITALY	27/03/94	4,9590***	9,5715***	16,441***	19,241***	20,711**
ITALY	21/04/96	6,1170***	7,9328***	5,2752	12,317**	9,4777
ITALY	13/05/01	0,9133	-0,312	-4,984	-5,714	-14,15**
ITALY	10/04/06	1,2294**	-1,093	0,4153	-0,377	4,1419
ITALY	14/04/08	-0,256	-1,079	0,2234	0,1151	-5,127
ITALY	25/02/13	2,4627*	-4,250	-7,785*	-8,900	-22,29**
JAPAN	18/02/90	-0,529	-1,180	-3,919**	-3,812	-8,402**
JAPAN	23/07/93	-0,830	0,1674	0,9167	0,4942	-5,869
JAPAN	20/10/96	-1,110*	-2,175	-1,849	-2,663	-2,777
JAPAN	25/06/00	-1,976	0,3224	5,8160	0,7011	-12,16
JAPAN	9/11/03	0,2471	-5,121*	-6,528	-7,270	-7,470
JAPAN	11/09/05	1,3351	2,5402	1,7160	4,9501	16,117***
JAPAN	30/08/09	0,6608	0,0702	1,0293	-2,267	-3,617
JAPAN	16/12/12	0,4143	4,4145**	2,5372	5,1408	8,6554
JAPAN	14/12/14	1,2635	-4,268*	-1,697	0,6506	-1,074
KOREA	18/12/92	0,3371	1,8070	7,4001	10,130	14,199
KOREA	19/12/97	-11,41***	-41,33***	16,249**	-36,33***	-34,95**
KOREA	19/12/02	0,1001	0,4567	-3,296	-10,70	-5,049
KOREA	19/12/07	0,0731	-2,541	-2,628	-6,134	-11,48
KOREA	19/12/12	-0,112	-2,065	0,3117	4,0468	0,8223
MEXICO	2/07/00	6,0623***	13,103***	14,333***	13,586*	10,340
MEXICO	2/07/06	4,7238***	2,8862	1,8010	6,0332	4,3099
MEXICO	1/07/12	-0,368	-0,351	3,9425	10,621***	8,4121
NETHERLANDS	6/09/89	1,0725*	2,9599**	3,1558	3,5904	0,2337
NETHERLANDS	3/05/94	0,4565	-1,569	-0,287	-0,985	-3,005

NETHERLANDS	6/05/98	0,2345	-0,347	2,2643	3,2196	8,1294
NETHERLANDS	15/05/02	-0,127	0,1748	0,0728	-1,614	-3,957
NETHERLANDS	22/01/03	-0,728	-1,731	-4,005	-0,930	-9,204
NETHERLANDS	22/11/06	-0,390	-0,244	-0,972	-3,947	-2,650
NETHERLANDS	9/06/10	2,2969***	-0,082	-0,245	2,9575	9,3913*
NETHERLANDS	12/09/12	-0,254	-1,948	-1,616	0,3495	2,3108
NEW ZEALAND	27/10/90	-2,613**	-4,882*	-8,034**	-9,031*	-18,35**
NEW ZEALAND	6/11/93	-10,05***	-13,52***	-13,91***	-7,838	-1,955
NEW ZEALAND	12/10/96	1,3384	3,2782*	6,4499**	3,4588	2,5632
NEW ZEALAND	27/11/99	0,2075	-0,220	1,9810	-0,983	9,0963
NEW ZEALAND	27/07/02	1,9393*	-0,801	-9,734**	-9,606*	-16,50**
NEW ZEALAND	17/09/05	-0,752	-0,695	-3,086	-2,380	-5,148
NEW ZEALAND	8/11/08	3,8997**	-5,398	0,2731	-2,998	-16,35
NEW ZEALAND	26/11/11	0,3984	0,2983	4,7931	-0,365	-3,320
NEW ZEALAND	20/09/14	1,5483*	0,3618	-4,992*	-9,143**	-6,115
NORWAY	11/09/89	-1,550	-0,331	2,3858	0,3888	-13,49*
NORWAY	13/09/93	1,7558	2,6694	0,9965	-2,182	8,4267
NORWAY	15/09/97	0,3729	2,4949	1,0943	5,3364	8,1560
NORWAY	10/09/01	-2,907***	-2,816	-1,134	-11,66**	-14,23*
NORWAY	12/09/05	-0,409	-1,107	-3,087	-2,524	-6,986
NORWAY	14/09/09	-0,745	-0,978	0,5513	1,9931	5,7513
NORWAY	9/09/13	0,0099	-0,767	-0,999	0,6631	2,8216
POLAND	21/09/97	-0,003	0,8795	-0,555	3,2831	0,1411
POLAND	23/09/01	-3,844**	-3,810	-0,593	-8,841	34,744***
POLAND	25/09/05	-0,640	-3,597	0,0866	3,2837	2,1385
POLAND	21/10/07	1,1264	4,5376*	5,3308	9,1983	5,8605
POLAND	9/10/11	2,6142**	4,1385	1,4054	3,4321	-11,43
POLAND	25/10/15	0,1371	-4,160	-6,197	-11,63**	-19,46**
PORTUGAL	10/10/99	-0,228	-0,503	0,9989	5,7738	4,1293
PORTUGAL	17/03/02	0,6197	1,2252	1,0621	5,3668	6,4670
PORTUGAL	20/02/05	-1,583**	-0,954	-1,256	-2,721	-2,017
PORTUGAL	20/02/09	-0,534	1,1212	3,3193	7,4431	4,3469
PORTUGAL	5/06/11	0,1318	2,7911	-0,084	-1,802	-9,954
SPAIN	29/10/89	0,0876	-0,014	-0,608	-5,472*	-4,860
SPAIN	6/06/93	-0,595	0,2771	1,9038	3,1062	-2,390
SPAIN	3/03/96	-6,229***	-6,366***	-6,149**	-4,060	1,1447
SPAIN	12/03/00	0,7327	-0,851	-1,522	-5,259	1,4908
SPAIN	14/03/04	-3,137***	-4,205**	-4,089*	-4,702	-4,158
SPAIN	9/03/08	1,4014	3,5758	5,8280*	5,9274	4,6262
SPAIN	20/11/11	-0,604	1,1072	0,5172	-1,624	-14,57
SPAIN	20/12/15	-3,359***	-1,575	-3,230	-4,210	-5,132
SPAIN	26/06/16	-0,280	-6,460***	-3,662	-4,127	-6,354
SWEDEN	15/09/91	-0,172	-0,280	1,5462	1,5887	-4,309

SWEDEN	18/09/94	-1,046	-2,086	-1,387	-4,702	1,8169
SWEDEN	20/09/98	-1,390	-2,619	-6,097*	-16,31***	-12,18
SWEDEN	15/09/02	0,4498	-1,304	-1,080	-2,962	5,3318
SWEDEN	17/09/06	0,7320	1,2447	1,3420	3,9478	4,0151
SWEDEN	19/09/10	0,0024	1,9819	0,9461	1,2111	0,6456
SWEDEN	14/09/14	0,7929	1,2308	3,7571	0,6986	0,3153
SWITZERLAND	20/10/91	0,5718	1,7098	0,6344	0,2426	2,2142
SWITZERLAND	22/10/95	-0,925	0,3621	0,5471	2,4788	6,2881
SWITZERLAND	24/10/99	-0,773	-2,490	-3,032	-0,435	1,2925
SWITZERLAND	19/10/03	0,3241	0,3241	-0,430	-2,153	0,1060
SWITZERLAND	21/10/07	-0,561	-0,138	-0,496	-0,558	3,4188
SWITZERLAND	23/10/11	-0,963	0,0125	-0,182	-4,421	0,1900
SWITZERLAND	18/10/15	-0,616	-0,808	-0,620	-0,750	-5,307
TURKEY	20/10/91	-1,128	11,402	14,411	3,6490	57,391**
TURKEY	24/12/95	-0,080	-9,121*	-6,259	-2,765	-5,079
TURKEY	18/04/99	10,747***	15,466*	15,705	11,617	18,346
TURKEY	3/11/02	6,7473**	17,841**	26,513***	44,022***	51,348**
TURKEY	22/07/07	6,6796***	12,431***	7,8738	12,183	13,871
TURKEY	12/06/11	0,0468	-3,941	0,7770	5,2617	-6,824
TURKEY	7/06/15	-7,749***	-4,951	-4,272	-0,964	11,960
TURKEY	1/11/15	7,9984***	8,1954**	4,6345	8,6952	6,5045
UNITED KINGDOM	9/04/92	1,4175**	9,0294***	8,4489***	8,8436***	9,7186**
UNITED KINGDOM	1/05/97	0,0725	-2,458*	-0,615	0,2353	-3,191
UNITED KINGDOM	7/06/01	0,0387	-2,161	-0,745	-1,250	-3,206
UNITED KINGDOM	5/05/05	0,4863	0,1967	-0,692	-3,880*	-2,956
UNITED KINGDOM	6/05/10	1,0646	0,8139	-1,508	-0,495	2,4127
UNITED KINGDOM	7/05/15	-0,614	3,9708***	2,7129	3,9536	5,9349
UNITED STATES	3/11/92	-0,775	-0,619	0,6351	1,6583	3,6411
UNITED STATES	5/11/96	0,3791	0,0456	-0,014	0,0565	1,8061
UNITED STATES	7/11/00	-1,526	-4,217	-2,225	-4,656	-2,913
UNITED STATES	2/11/04	-0,310	0,5082	1,1178	-0,147	-1,787
UNITED STATES	4/11/08	-3,406	11,936**	-0,851	14,761	9,9581
UNITED STATES	6/11/12	0,2474	-1,551*	-1,336	-1,110	-3,048
UNITED STATES	8/11/16	0,0071	2,1077**	2,5622*	2,5456	2,5152

Annex 2: regression calculation from SAS program

Procédure REG
Modèle : Linear_Regression_Model
Variable dépendante : -25 days before the election

Nb d'observations lues 194
 Nb d'obs. utilisées 194

Analyse de variance				
Source	DDL	Somme des carrés	Moyenne quadratique	Valeur F Pr > F
Modèle	10	0.002810	0.00028113	1.240.2666
Erreur	183	0.041400	0.00022624	
Total sommes corrigées	193	0.04421		

Root MSE 0.01504 R carré 0.0636
 Moyenne dépendante -0.00193 R car. ajust. 0.0124
 Coeff Var -779.10250

Résultats estimés des paramètres				
Variable	DDL	Valeur estimée des paramètres	Erreur type	Valeur du test t Pr > t
Intercept	1	-0.01742	0.03411	-0.510.6102
Political system	1	-0.00461	0.00456	-1.010.3134
Majority of a minority	1	-0.00414	0.00305	-1.360.1766
Percentage of Victory	1	-0.00593	0.00595	-1.000.3206
Number of Parties	1	0.000119890	0.00043718	0.270.7842
Orientation change	1	-0.00008946	0.00231	-0.040.9691
Anticipated Election	1	-0.00261	0.00288	-0.910.3662
Voting system	1	0.00029531	0.00314	0.090.9253
Stock Exchange	1	-0.00446	0.00254	-1.760.0809
Log Population	1	0.00085578	0.00114	0.750.4554
Log GDP per Capita	1	0.00077546	0.00234	0.330.7405

Generated by the SAS System ('Local', X64_8PRO)

Linear Regression Results

Procédure REG
Modèle : Linear_Regression_Model
Variable dépendante : -25 days before the election

Test d'indication du Premier et du Second		
DDL	Khi-2	Pr > Khi-2
60	57.04	0.5845

Durbin-Watson D 1.946
 Nombre d'observations 194
 Autocorrélation de 1er ordre 0.021

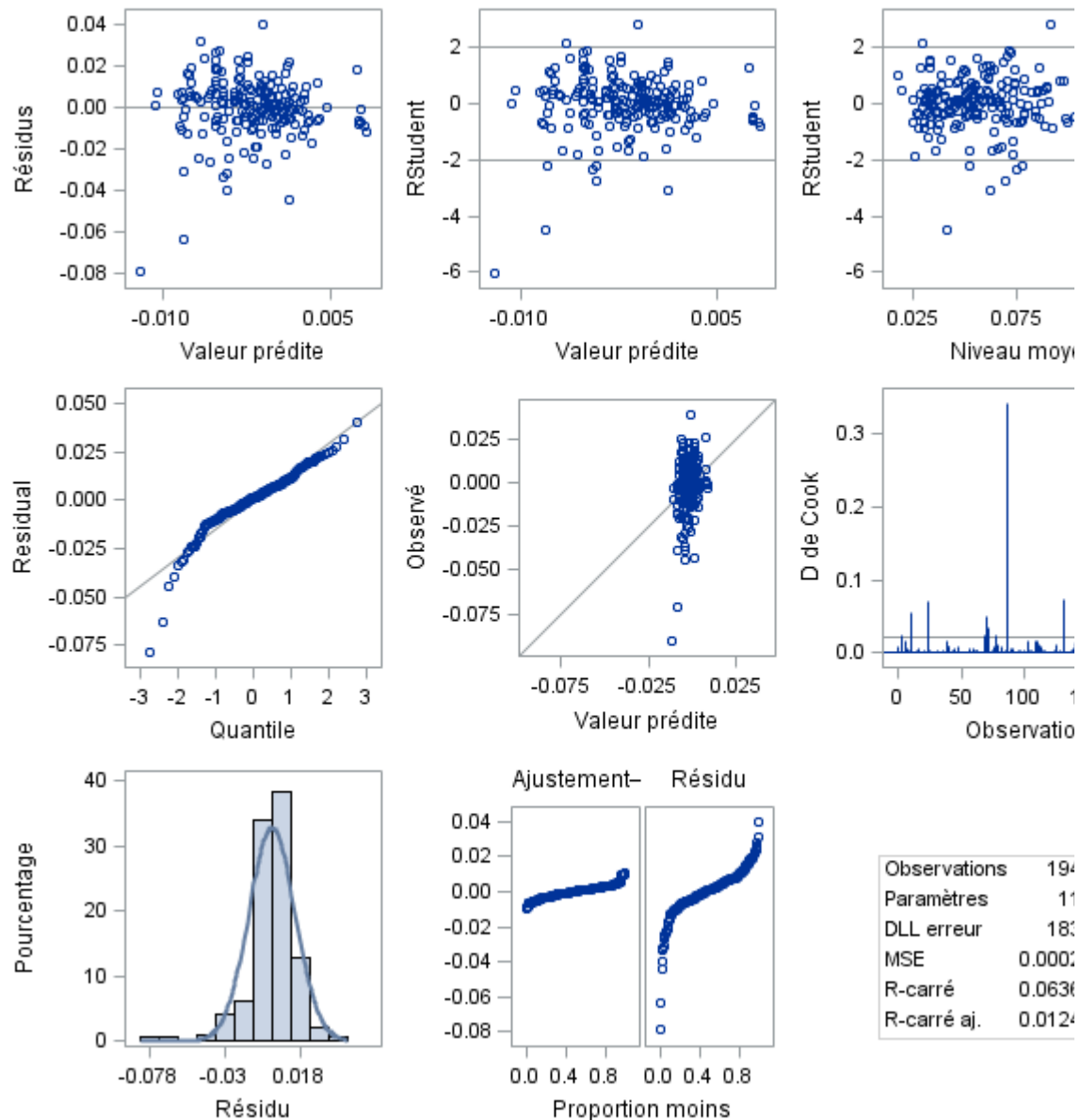
Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -25 days before the election

Diagnostics d'ajustement pour -25 days before the election



Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -10 days before the election

Nb d'observations lues 194
Nb d'obs. utilisées 194

Analyse de variance					
Source	DDL	Somme des carrés	Moyenne quadratique	Valeur F	Pr > F
Modèle	11	0.03228	0.00293	0.840	0.5955
Erreur	182	0.63206	0.00347		
Total sommes corrigées	193	0.66434			

Root MSE 0.05893 R carré 0.0486
Moyenne dépendante -0.00270 R car. ajust. -0.0089
Coeff Var -2179.09583

Résultats estimés des paramètres					
Variable	DDL	Valeur estimée des paramètres	Erreur type	Valeur du test t	Pr > t
Intercept	1	-0.05261	0.13411	-0.390	0.6953
Party orientation	1	0.000993	0.00939	0.110	0.9158
Political system	1	0.01601	0.01786	0.900	0.3711
Majority of a minority	1	0.00446	0.01201	0.370	0.7110
Percentage of Victory	1	-0.01255	0.02346	-0.530	0.5934
Number of Parties	1	0.00176	0.00172	1.020	0.3080
Orientation change	1	-0.00135	0.00914	-0.150	0.8828
Anticipated Election	1	0.00984	0.01160	0.850	0.3976
Voting system	1	0.01428	0.01235	1.160	0.2493
Stock Exchange	1	0.01049	0.01001	1.050	0.2957
Log Population	1	0.00491	0.00469	1.050	0.2965
Log GDP per Capita	1	-0.00712	0.00920	-0.770	0.4404

Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -10 days before the election

Test d'indication du Premier et du Second		
DDL	Khi-2	Pr > Khi-2
69	47.59	0.9770

Durbin-Watson D 2.013
Nombre d'observations 194
Autocorrélation de 1er ordre -0.007

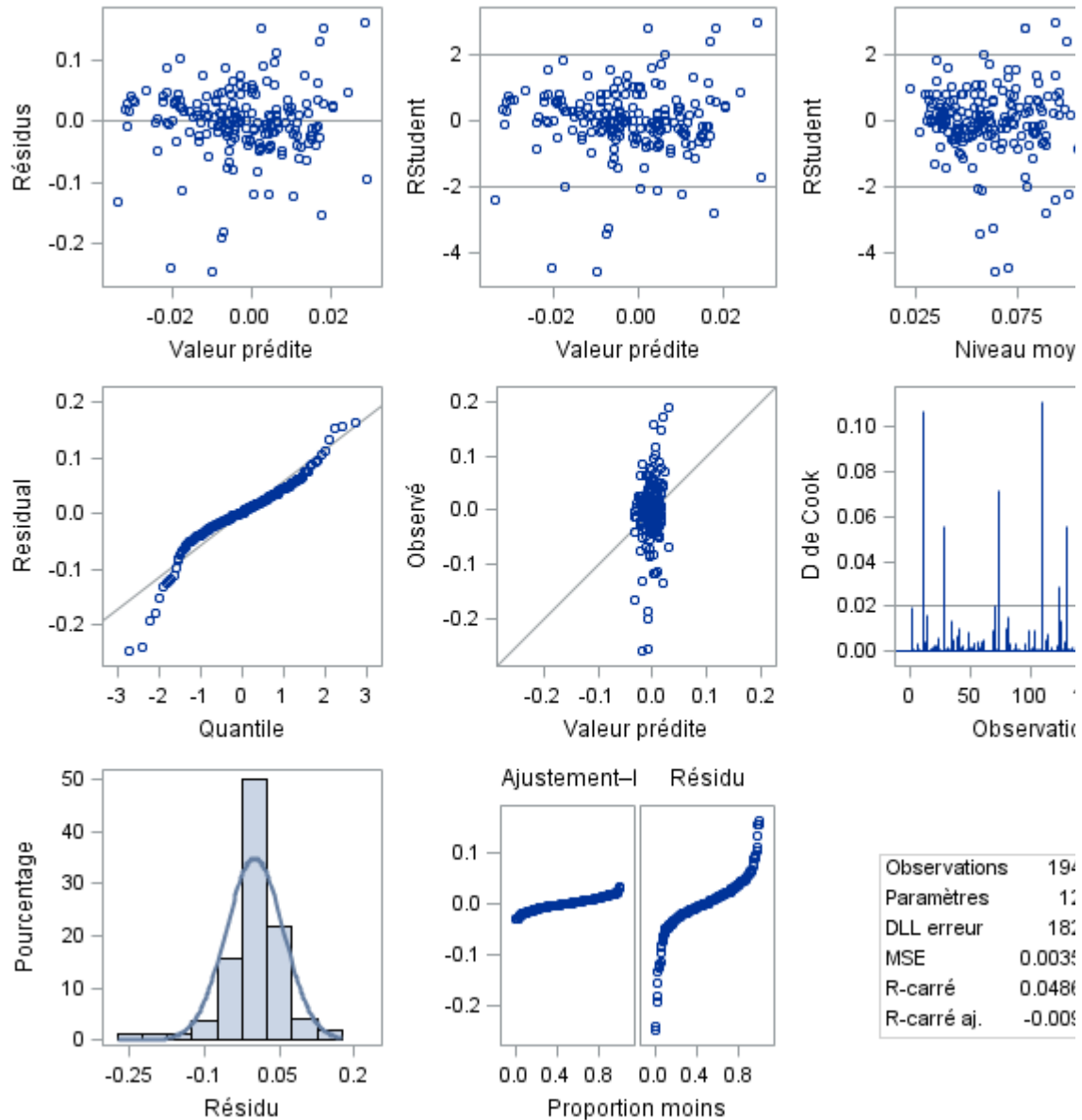
Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -10 days before the election

Diagnostics d'ajustement pour -10 days before the election



Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -5 days before the election

Nb d'observations lues 194

Nb d'obs. utilisées 194

Analyse de variance					
Source	DDL	Somme des carrés	Moyenne quadratique	Valeur F	Pr > F
Modèle	11	0.03567	0.00324	0.500	0.9003
Erreur	182	1.17573	0.00646		
Total sommes corrigées	193	1.21140			

Root MSE	0.08037	R carré	0.0294
Moyenne dépendante	-0.00131	R car. ajust.	-0.0292
Coeff Var	-6127.16236		

Résultats estimés des paramètres					
Variable	DDL	Valeur estimée des paramètres	Erreur type	Valeur du test t	Pr > t
Intercept	1	-0.03421	0.18291	-0.190	0.8519
Party orientation	1	0.00768	0.01280	0.600	0.5492
Political system	1	0.01731	0.02436	0.710	0.4781
Majority of a minority	1	0.00206	0.01638	0.130	0.9000
Percentage of Victory	1	0.02049	0.03199	0.640	0.5228
Number of Parties	1	0.00234	0.00235	0.990	0.3214
Orientation change	1	-0.00110	0.01246	-0.090	0.9301
Anticipated Election	1	0.00724	0.01582	0.460	0.6479
Voting system	1	0.01536	0.01685	0.910	0.3631
Stock Exchange	1	-0.00224	0.01365	-0.160	0.8700
Log Population	1	0.00174	0.00640	0.270	0.7858
Log GDP per Capita	1	-0.00300	0.01255	-0.240	0.8115

Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -5 days before the election

Test d'indication du Premier et du Second		
DDL	Khi-2	Pr > Khi-2
69	34.85	0.9998

Durbin-Watson D	2.047
Nombre d'observations	194
Autocorrélation de 1er ordre	-0.023

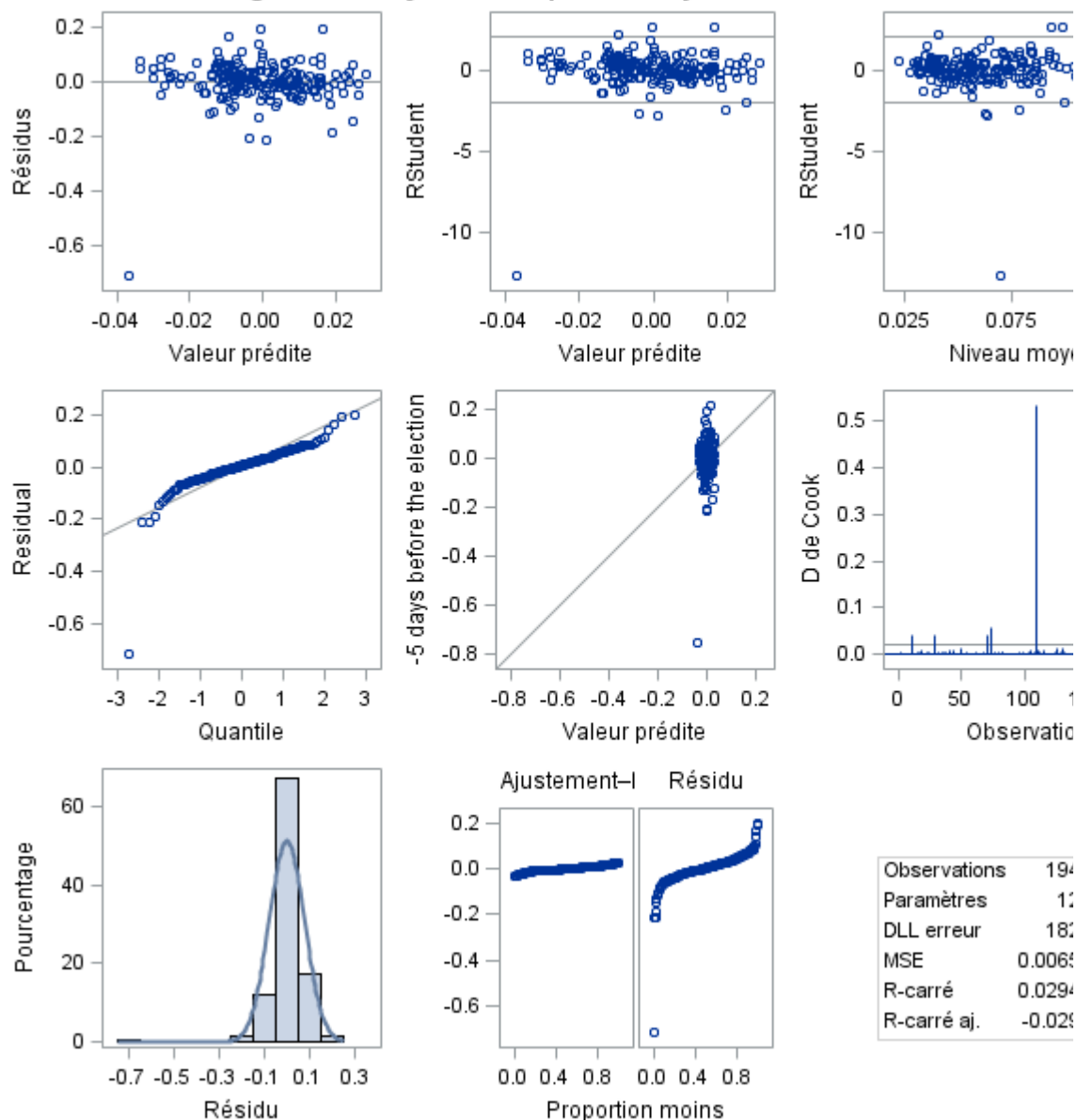
Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -5 days before the election

Diagnostics d'ajustement pour -5 days before the election



Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -2 days before the election

Nb d'observations lues 194
Nb d'obs. utilisées 194

Analyse de variance					
Source	DDL	Somme des carrés	Moyenne quadratique	Valeur F	Pr > F
Modèle	11	0.03865	0.00351	0.710	0.7250
Erreur	182	0.89657	0.00493		
Total sommes corrigées	193	0.93521			

Root MSE 0.07019 R carré 0.0413
Moyenne dépendante 0.00244 R car. ajust.-0.0166
Coeff Var 2876.17825

Résultats estimés des paramètres					
Variable	DDL	Valeur estimée des paramètres	Erreur type	Valeur du test t	Pr > t
Intercept	1	0.03406	0.15972	0.210	0.8314
Party orientation	1	0.00185	0.01118	0.170	0.8690
Political system	1	0.00170	0.02127	0.080	0.9364
Majority of a minority	1	-0.00081	0.02143	-0.060	0.9548
Percentage of Victory	1	-0.00083	0.02794	-0.030	0.9763
Number of Parties	1	0.00343	0.00205	1.670	0.0966
Orientation change	1	-0.00473	0.01088	-0.430	0.6646
Anticipated Election	1	0.00861	0.01382	0.620	0.5341
Voting system	1	0.01386	0.01471	0.940	0.3474
Stock Exchange	1	0.00752	0.01192	0.630	0.5290
Log Population	1	0.00492	0.00559	0.880	0.3797
Log GDP per Capita	1	-0.01408	0.01096	-1.280	0.2007

Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -2 days before the election

Test d'indication du Premier et du Second		
DDL	Khi-2	Pr > Khi-2
69	50.33	0.9556

Durbin-Watson D 2.008
Nombre d'observations 194
Autocorrélation de 1er ordre -0.004

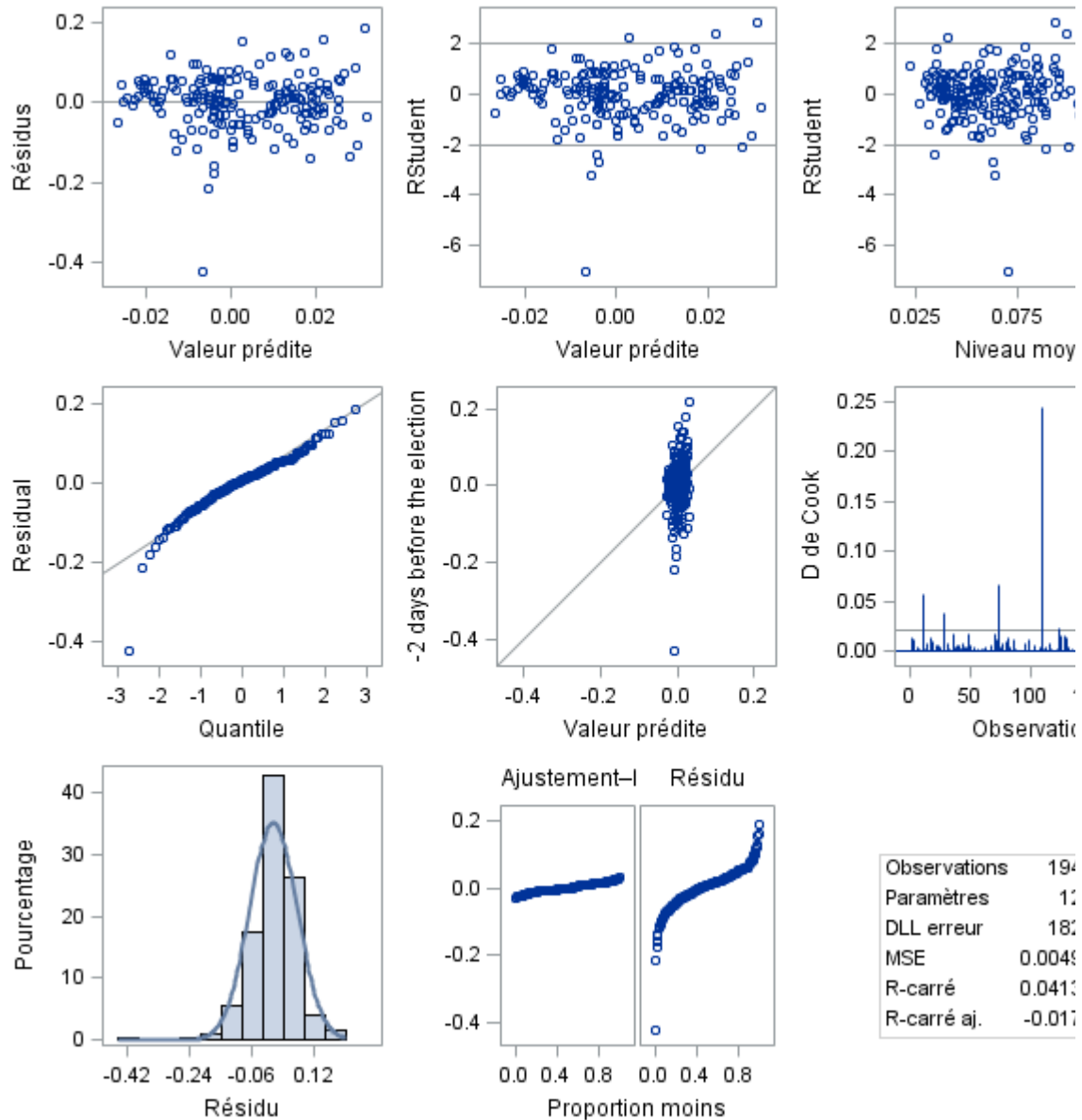
Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : -2 days before the election

Diagnostics d'ajustement pour -2 days before the election



Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : Election day

Nb d'observations lues 194

Nb d'obs. utilisées 194

Analyse de variance					
Source	DDL	Somme des carrés	Moyenne quadratique	Valeur F	Pr > F
Modèle	11	0.06567	0.00597	0.950	0.4907
Erreur	182	1.13956	0.00626		
Total sommes corrigées	193	1.20523			

Root MSE	0.07913	R carré	0.0545
Moyenne dépendante	0.00643	R car. ajust.	-0.0027
Coeff Var	1231.11491		

Résultats estimés des paramètres				
Variable	DDL	Valeur estimée des paramètres	Erreur type	Valeur du test t Pr > t
Intercept	1	0.107010	0.18007	0.590.5531
Party orientation	1	0.007280	0.01260	0.580.5644
Political system	1	0.006950	0.02398	0.290.7721
Majority of a minority	1	0.003550	0.01613	0.220.8258
Percentage of Victory	1	0.016920	0.03150	0.540.5917
Number of Parties	1	0.003630	0.00231	1.570.1180
Orientation change	1	-0.005520	0.01227	-0.450.6536
Anticipated Election	1	0.003970	0.01558	0.260.7989
Voting system	1	0.016100	0.01658	0.970.3330
Stock Exchange	1	0.007260	0.01344	0.540.5898
Log Population	1	0.005750	0.00630	0.910.3627
Log GDP per Capita	1	-0.022710	0.01236	-1.840.0677

Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : Election day

Test d'indication du Premier et du Second

DDL	Khi-2	Pr > Khi-2
69	47.50	0.9776

Durbin-Watson D	1.925
Nombre d'observations	194
Autocorrélation de 1er ordre	0.037

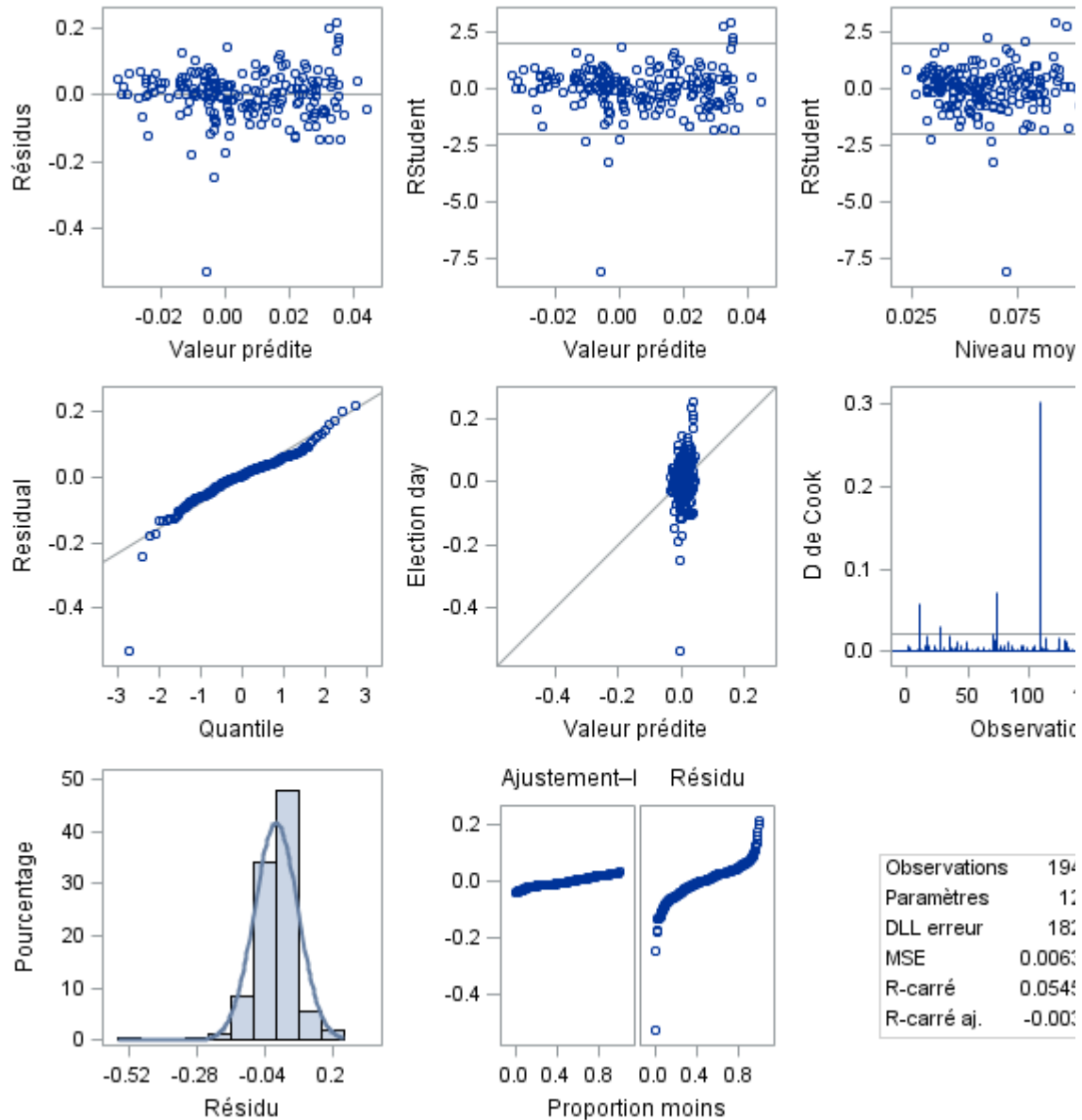
Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : Election day

Diagnostics d'ajustement pour Election day



Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +2 days after the election

Nb d'observations lues 194
Nb d'obs. utilisées 194

Analyse de variance					
Source	DDL	Somme des carrés	Moyenne quadratique	Valeur F	Pr > F
Modèle	11	0.09315	0.00847	0.840	0.5995
Erreur	182	1.83293	0.01007		
Total sommes corrigées	193	1.92607			

Root MSE 0.10035 R carré 0.0484
Moyenne dépendante 0.00225 R car. ajust.-0.0092
Coeff Var 4454.94963

Résultats estimés des paramètres					
Variable	DDL	Valeur estimée des paramètres	Erreur type	Valeur du test t	Pr > t
Intercept	1	0.135600	0.22838	0.590	0.5534
Party orientation	1	0.011030	0.01599	0.690	0.4912
Political system	1	0.013680	0.03041	0.450	0.6534
Majority of a minority	1	0.003780	0.02045	0.180	0.8535
Percentage of Victory	1	0.021740	0.03995	0.540	0.5869
Number of Parties	1	0.004100	0.00293	1.400	0.1639
Orientation change	1	-0.013640	0.01556	-0.880	0.3820
Anticipated Election	1	0.009090	0.01975	0.460	0.6461
Voting system	1	0.015180	0.02103	0.720	0.4715
Stock Exchange	1	0.000398340	0.01704	0.020	0.9814
Log Population	1	0.006940	0.00799	0.870	0.3857
Log GDP per Capita	1	-0.028240	0.01567	-1.800	0.0732

Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +2 days after the election

Test d'indication du Premier et du Second		
DDL	Khi-2	Pr > Khi-2
69	46.79	0.9814

Durbin-Watson D 1.966
Nombre d'observations 194
Autocorrélation de 1er ordre 0.016

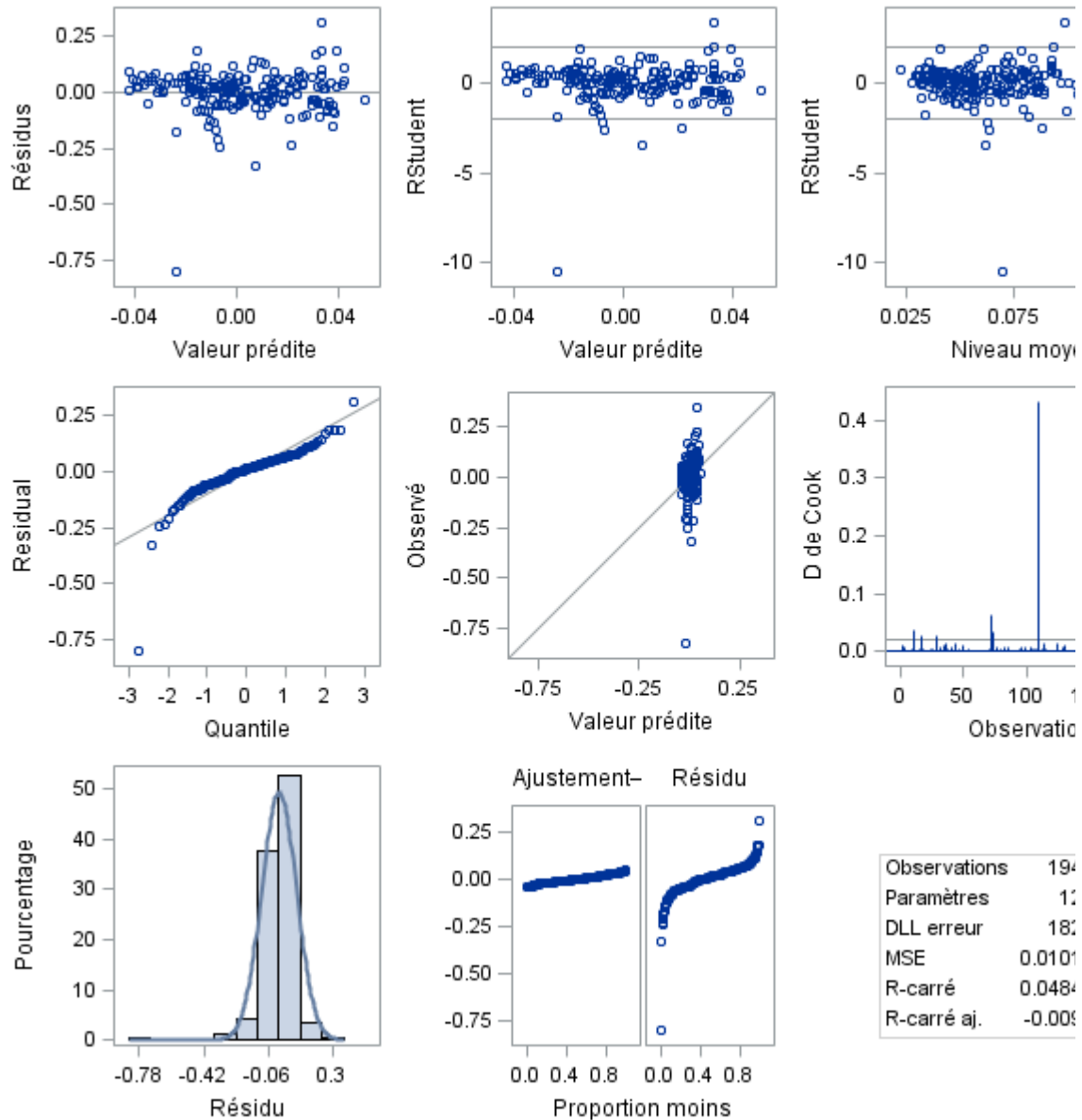
Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +2 days after the election

Diagnostics d'ajustement pour +2 days before the election



Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +5 days after the election

Nb d'observations lues 194
Nb d'obs. utilisées 194

Analyse de variance					
Source	DDL	Somme des carrés	Moyenne quadratique	Valeur F	Pr > F
Modèle	11	0.09439	0.00858	1.020	0.4262
Erreur	182	1.52397	0.00837		
Total sommes corrigées	193	1.61836			

Root MSE 0.09151 R carré 0.0583
Moyenne dépendante 0.00382 R car. ajust. 0.0014
Coeff Var 2396.01769

Résultats estimés des paramètres					
Variable	DDL	Valeur estimée des paramètres	Erreur type	Valeur du test t	Pr > t
Intercept	1	0.21399	0.20824	1.030	0.3055
Party orientation	1	0.00334	0.01458	0.230	0.8192
Political system	1	-0.00454	0.02773	-0.160	0.8701
Majority of a minority	1	0.00173	0.01865	0.090	0.9262
Percentage of Victory	1	0.01021	0.03642	0.280	0.7795
Number of Parties	1	0.00432	0.00267	1.610	0.1083
Orientation change	1	-0.01415	0.01419	-1.000	0.3200
Anticipated Election	1	0.01487	0.01801	0.830	0.4102
Voting system	1	0.01896	0.01918	0.990	0.3241
Stock Exchange	1	0.00187	0.01554	0.120	0.9044
Log Population	1	0.00610	0.00728	0.840	0.4035
Log GDP per Capita	1	-0.03283	0.01429	-2.300	0.0227

Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +5 days after the election

Test d'indication du Premier et du Second		
DDL	Khi-2	Pr > Khi-2
70	47.62	0.9814

Durbin-Watson D 1.895
Nombre d'observations 194
Autocorrélation de 1er ordre 0.051

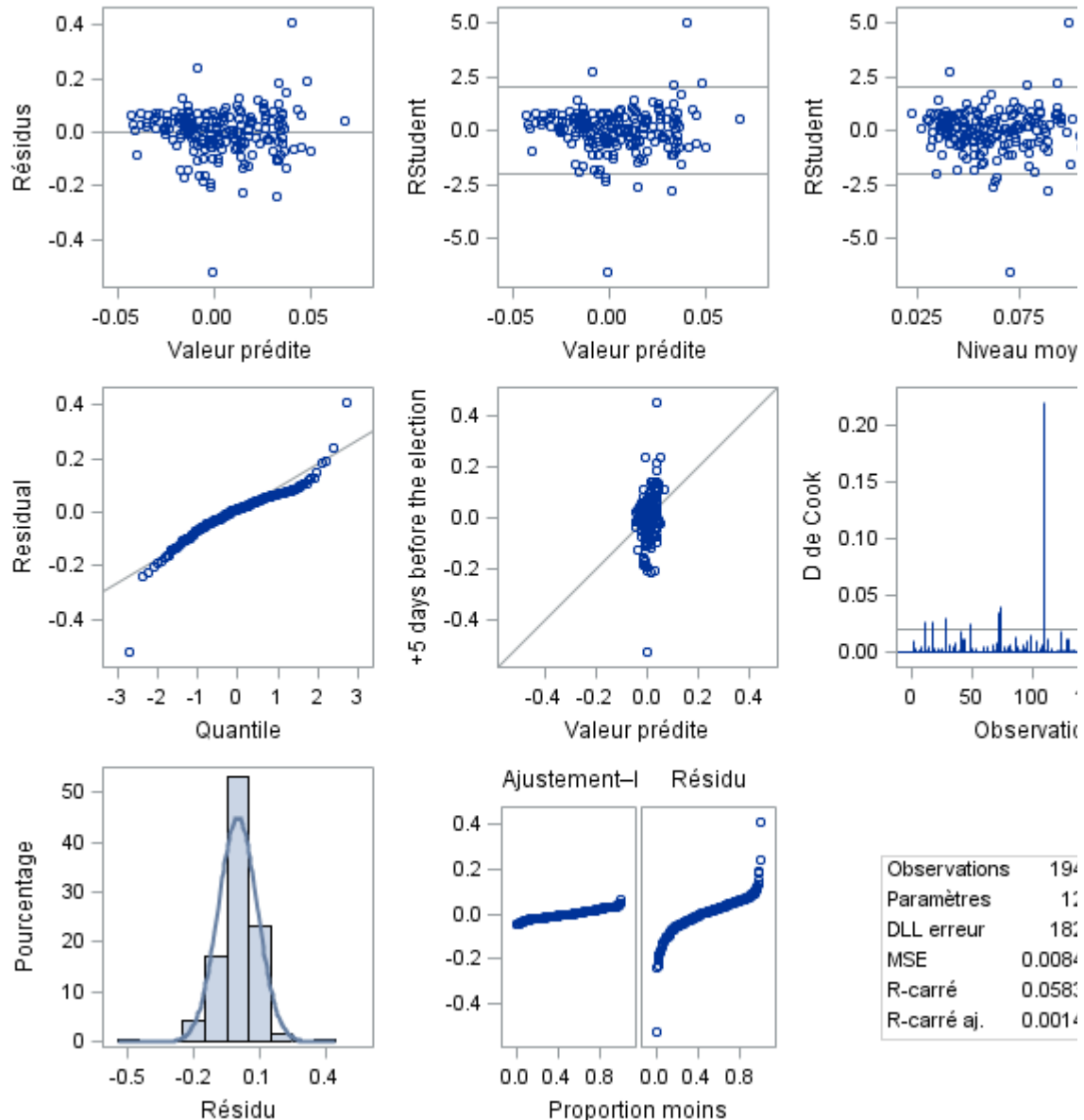
Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +5 days after the election

Diagnostics d'ajustement pour +5 days before the election



Linear Regression Results

Procédure REG
Modèle : Linear_Regression_Model
Variable dépendante : +10 days after the election

Nb d'observations lues 194
Nb d'obs. utilisées 194

Analyse de variance					
Source	DDL	Somme des carrés	Moyenne quadratique	Valeur F	Pr > F
Modèle	11	0.15921	0.01447	1.400	0.1746
Erreur	182	1.87738	0.01032		
Total sommes corrigées	193	2.03659			

Root MSE 0.10156 R carré 0.0782
Moyenne dépendante 0.00277 R car. ajust. 0.0225
Coeff Var 3667.09653

Résultats estimés des paramètres					
Variable	DDL	Valeur estimée des paramètres	Erreur type	Valeur du test t	Pr > t
Intercept	1	0.24947	0.23113	1.080	0.2819
Party orientation	1	0.00722	0.01618	0.450	0.6560
Political system	1	0.00966	0.03078	0.310	0.7539
Majority of a minority	1	0.00045	0.02070	0.020	0.9824
Percentage of Victory	1	0.01217	0.04043	0.300	0.7636
Number of Parties	1	0.00436	0.00297	1.470	0.1435
Orientation change	1	-0.01107	0.01575	-0.700	0.4832
Anticipated Election	1	0.02165	0.01999	1.080	0.2803
Voting system	1	0.02135	0.02129	1.000	0.3173
Stock Exchange	1	0.00355	0.01725	0.210	0.8372
Log Population	1	0.00871	0.00808	1.080	0.2826
Log GDP per Capita	1	-0.04227	0.01586	-2.660	0.0084

Linear Regression Results

Procédure REG
Modèle : Linear_Regression_Model
Variable dépendante : +10 days after the election

Test d'indication du Premier et du Second		
DDL	Khi-2	Pr > Khi-2
69	67.17	0.5399

Durbin-Watson D 1.817
Nombre d'observations 194
Autocorrélation de 1er ordre 0.090

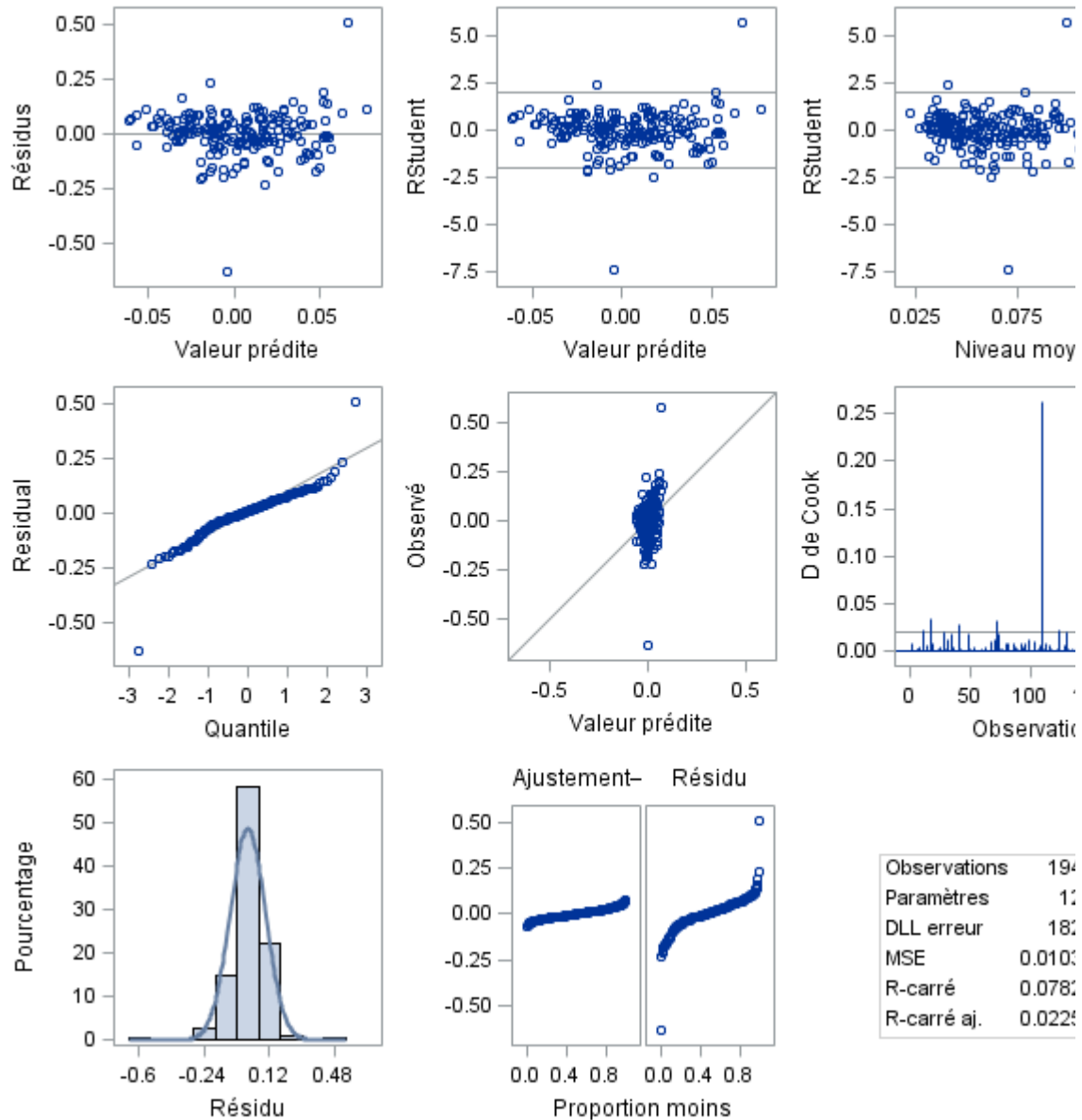
Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +10 days after the election

Diagnostics d'ajustement pour +10 days before the election



Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +25 days after the election

Nb d'observations lues 194

Nb d'obs. utilisées 194

Analyse de variance

Source	DDL	Somme des carrés	Moyenne quadratique	Valeur F	Pr > F
Modèle	11	0.26659	0.02424	1.94	0.0374
Erreur	182	2.27785	0.01252		
Total sommes corrigées	193	2.54444			

Root MSE 0.11187 R carré 0.1048

Moyenne dépendante 0.00272 R car. ajust. 0.0507

Coeff Var 4110.88767

Résultats estimés des paramètres

Variable	DDL	Valeur estimée des paramètres	Erreur type	Valeur du test t	Pr > t
Intercept	1	0.40232	0.25459	1.58	0.1158
Party orientation	1	-0.01150	0.01782	-0.65	0.5194
Political system	1	-0.01150	0.03390	-0.34	0.7349
Majority of a minority	1	0.01698	0.02280	0.74	0.4573
Percentage of Victory	1	0.01647	0.04453	0.37	0.7118
Number of Parties	1	0.00510	0.00327	1.56	0.1204
Orientation change	1	-0.00945	0.01735	-0.54	0.5867
Anticipated Election	1	0.02289	0.02202	1.04	0.2999
Voting system	1	0.03168	0.02345	1.35	0.1783
Stock Exchange	1	0.00921	0.01900	0.48	0.6284
Log Population	1	0.01041	0.00890	1.17	0.2436
Log GDP per Capita	1	-0.05899	0.01747	-3.38	0.0009

Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +25 days after the election

Test d'indication du Premier et du Second

DDL	Khi-2	Pr > Khi-2
69	46.55	0.9826

Durbin-Watson D 1.982

Nombre d'observations 194

Autocorrélation de 1er ordre 0.006

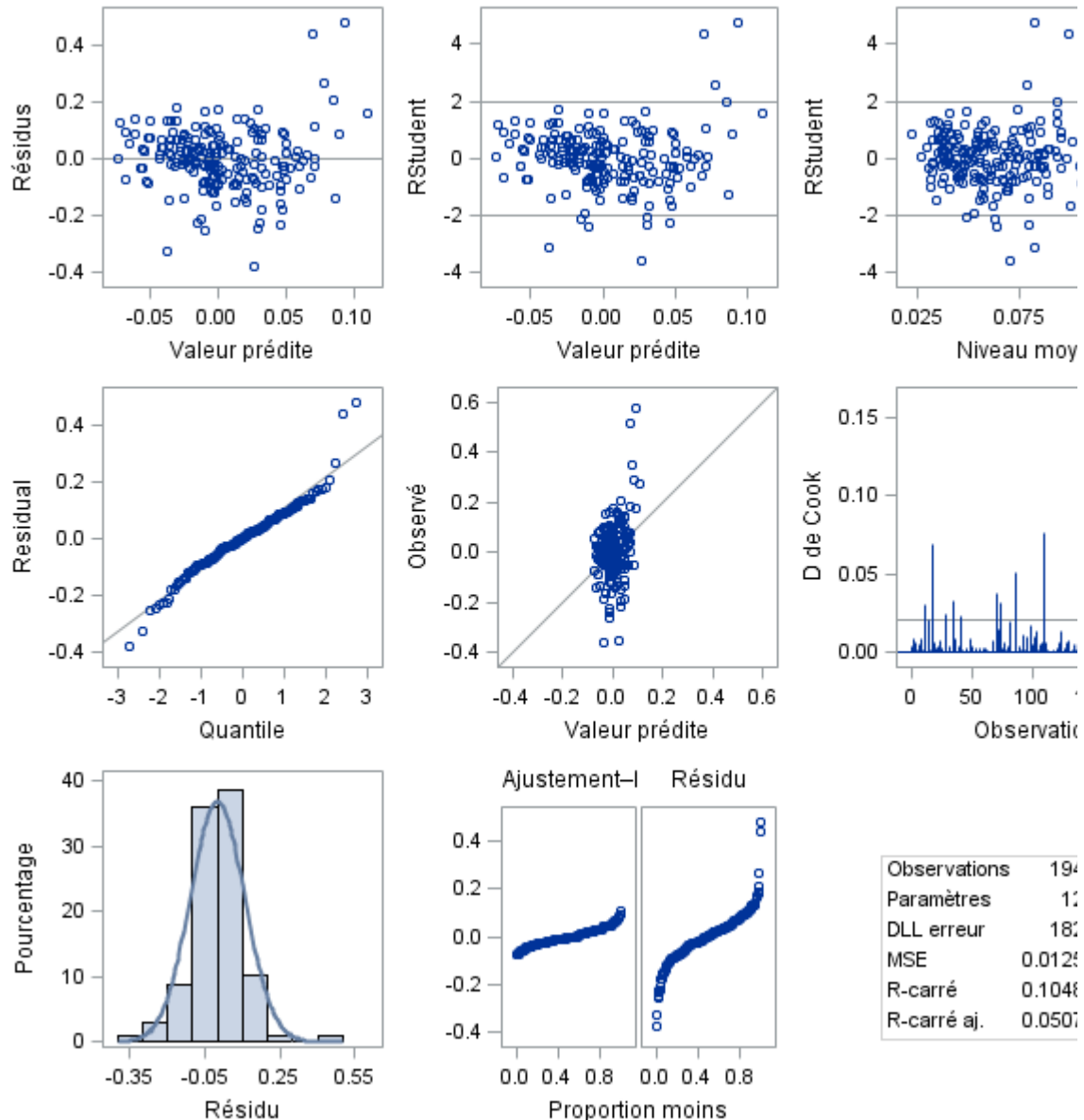
Linear Regression Results

Procédure REG

Modèle : Linear_Regression_Model

Variable dépendante : +25 days after the election

Diagnostics d'ajustement pour +25 days before the election



Annex 3: Elections information

Country	Date of entry in OECD	MSCI Index Code	BBG Ticker	Bloomberg Index Name	Size	Variant	Currency	MSCI Index Starting Date	Is it in the other study?	Election Type	Election Date	Party orientation	Political system	Majority of a minority	Percentage of Victory	Number of Parties	Orientation change	Anticipated Election	Voting system	Stock Exchange	Log Population	Log GDP per capita
AUSTRIA	7/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	24/03/90	0	1	0	0.002	6	0	0	1	1	16,6525476	10,57716416
AUSTRIA	8/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	13/03/93	0	1	0	0.0288	7	0	0	1	1	16,68539612	10,62809424
AUSTRIA	9/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	2/03/96	1	1	0	0.0726	8	1	0	1	1	16,71830484	10,70985931
AUSTRIA	10/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	3/10/98	1	1	0	-0.0196	9	0	1	1	1	16,73910215	10,78161907
AUSTRIA	11/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	10/11/01	1	1	0	0.019	9	0	0	1	1	16,77431948	10,8408756
AUSTRIA	12/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	9/10/04	1	1	0	0.0548	9	0	0	1	1	16,80788721	10,90938314
AUSTRIA	13/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	24/11/07	0	1	0	0.054	8	1	0	1	1	16,85180879	10,96327797
AUSTRIA	14/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	21/08/10	0	1	1	0.0024	9	1	0	1	1	16,9080065	10,9720333
AUSTRIA	15/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	7/09/13	1	1	0	0.0698	10	1	0	1	1	16,95646808	11,00984889
AUSTRIA	16/06/71	903600	MSDUA S Index	MSCI Australia a USD	Standard	Price	USD	31502	Yes	Parliamentary	2/07/16	1	1	0	0.0072	10	0	0	1	1	17,00637079	11,03720935
AUSTRIA	3/10/61	903600	MSDUA T Index	MSCI Austria a USD	Standard	Price	USD	31502	Yes	Parliamentary	7/10/90	0	1	0	-0.1444	4	0	0	1	0	15,85385012	10,42782697
AUSTRIA	4/10/61	903600	MSDUA T Index	MSCI Austria a USD	Standard	Price	USD	31502	Yes	Parliamentary	9/10/94	0	1	0	-0.3016	5	0	0	1	0	15,88693467	10,47829017
AUSTRIA	5/10/61	903600	MSDUA T Index	MSCI Austria a USD	Standard	Price	USD	31502	Yes	Parliamentary	17/12/95	0	1	0	-0.2388	5	0	1	1	0	15,88846586	10,50308925
AUSTRIA	6/10/61	903600	MSDUA T Index	MSCI Austria a USD	Standard	Price	USD	31502	Yes	Parliamentary	3/10/99	0	1	0	-0.337	4	0	0	1	0	15,89399201	10,61332491
AUSTRIA	7/10/61	903600	MSDUA T Index	MSCI Austria a USD	Standard	Price	USD	31502	Yes	Parliamentary	24/11/02	0	1	0	-0.154	4	1	1	1	0	15,9051649	10,66511895

AUSTRI A	8/10/6 1	MSDUA T Index	MSCI Austria USD	Standar d	Price	USD	31502	Yes	Parliam entary	1/10/0 6	0	1	0	-0.2932	5	1	0	0	0	15.9278 9691	10,7307 5797
AUSTRI A	9/10/6 1	MSDUA T Index	MSCI Austria USD	Standar d	Price	USD	31502	Yes	Parliam entary	28/09/ 08	0	1	0	-0.4148	5	0	1	0	0	15.9343 5801	10,7752 2578
AUSTRI A	10/10/ 61	MSDUA T Index	MSCI Austria USD	Standar d	Price	USD	31502	Yes	Parliam entary	29/09/ 13	0	1	0	-0.4236	6	0	0	0	0	15.9518 7222	10,7734 2571
BELGIU M	13/09/ 61	MSDUB E Index	MSCI Belgium USD	Standar d	Price	USD	25568	Yes	Parliam entary	24/11/ 91	0	1	1	-0.664	13	0	0	1	0	16.1185 4455	10,4234 6782
BELGIU M	13/09/ 61	MSDUB E Index	MSCI Belgium USD	Standar d	Price	USD	25568	Yes	Parliam entary	21/05/ 95	0	1	1	-0.656	11	0	0	1	0	16.1316 8391	10,4713 1358
BELGIU M	13/09/ 61	MSDUB E Index	MSCI Belgium USD	Standar d	Price	USD	25568	Yes	Parliam entary	13/06/ 99	1	1	1	-0.738	11	1	0	1	0	16.1404 8513	10,5696 7928
BELGIU M	13/09/ 61	MSDUB E Index	MSCI Belgium USD	Standar d	Price	USD	25568	Yes	Parliam entary	18/05/ 03	1	1	1	-0.714	11	0	0	1	0	16.1550 1853	10,6242 5158
BELGIU M	13/09/ 61	MSDUB E Index	MSCI Belgium USD	Standar d	Price	USD	25568	Yes	Parliam entary	10/06/ 07	0	1	1	-0.6298	11	1	0	1	0	16.1787 8615	10,7150 5653
BELGIU M	13/09/ 61	MSDUB E Index	MSCI Belgium USD	Standar d	Price	USD	25568	Yes	Parliam entary	13/06/ 10	1	1	1	-0.652	12	1	1	1	0	16.2061 3125	10,7017 0536
CANAD A	10/04/ 61	MSDUC A Index	MSCI Canada USD	Standar d	Price	USD	31502	Yes	Parliam entary	25/05/ 14	1	1	1	-0.5948	13	0	0	1	0	16.2340 9933	10,7117 2071
CANAD A	10/04/ 61	MSDUC A Index	MSCI Canada USD	Standar d	Price	USD	31502	Yes	Parliam entary	25/10/ 93	0	1	0	-0.1752	6	1	0	0	0	17.1718 7653	10,4866 298
CANAD A	10/04/ 61	MSDUC A Index	MSCI Canada USD	Standar d	Price	USD	31502	Yes	Parliam entary	2/06/9 7	0	1	0	0.03	6	0	0	0	0	17.2135 6802	10,5732 075
CANAD A	10/04/ 61	MSDUC A Index	MSCI Canada USD	Standar d	Price	USD	31502	Yes	Parliam entary	27/11/ 00	0	1	0	-0.183	5	0	1	0	0	17.2393 0828	10,6864 2221
CANAD A	10/04/ 61	MSDUC A Index	MSCI Canada USD	Standar d	Price	USD	31502	Yes	Parliam entary	28/06/ 04	0	1	1	-0.2654	5	0	0	0	0	17.2793 9099	10,7418 8784
CANAD A	10/04/ 61	MSDUC A Index	MSCI Canada USD	Standar d	Price	USD	31502	Yes	Parliam entary	23/01/ 06	1		1	-0.3478	5	1	1	0	0	17.2990 8853	10,7796 8533
CANAD A	10/04/ 61	MSDUC A Index	MSCI Canada USD	Standar d	Price	USD	31502	Yes	Parliam entary	14/10/ 08	1		1	-0.4302	5	0	1	0	0	17.3215 9814	10,7895 3634
CANAD A	10/04/ 61	MSDUC A Index	MSCI Canada USD	Standar d	Price	USD	31502	Yes	Parliam entary	2/05/1 1	1	1	0	-0.2076	5	0	1	0	0	17.3560 0543	10,7884 3075
CANAD A	10/04/ 61	MSDUC A Index	MSCI Canada USD	Standar d	Price	USD	31502	Yes	Parliam entary	19/10/ 15	0	1	0	-0.21	5	1	0	0	0	17.3948 5413	10,8218 8452

CHILE	7/05/10	915200	MSEUS CH Index	MSCI Emergi ng Market s Chile USD	Standar d	Price	USD	36892	No	Preside ntial	14/12/ 89	1	0	0	0.1034	1	1	0	1	1	16,3776 4519	8,64305 3857
CHILE	7/05/10	915200	MSEUS CH Index	MSCI Emergi ng Market s Chile USD	Standar d	Price	USD	36892	No	Preside ntial	11/12/ 93	1	0	0	0.1596	1	0	1	1	1	16,4480 0857	8,86901 9147
CHILE	7/05/10	915200	MSEUS CH Index	MSCI Emergi ng Market s Chile USD	Standar d	Price	USD	36892	No	Preside ntial	16/01/ 00	0	0	0	0,0262	1	1	0	1	1	16,5497 339	9,14881 0536
CHILE	7/05/10	915200	MSEUS CH Index	MSCI Emergi ng Market s Chile USD	Standar d	Price	USD	36892	No	Preside ntial	15/01/ 06	0	0	0	0,07	1	1	0	1	1	16,6147 8198	9,36301 4538
CHILE	7/05/10	915200	MSEUS CH Index	MSCI Emergi ng Market s Chile USD	Standar d	Price	USD	36892	No	Preside ntial	17/01/ 10	1	0	0	0,0322	1	0	0	1	1	16,6542 5446	9,45144 1971
CHILE	7/05/10	915200	MSEUS CH Index	MSCI Emergi ng Market s Chile USD	Standar d	Price	USD	36892	No	Preside ntial	15/12/ 13	0	0	0	0,2432	1	1	1	0	1	16,6809 5304	9,56886 3024
CZECH REPUBL IC	21/12/ 95	920000	MSEUS CZ Index	MSCI Emergi ng Market s Czech Republi c USD	Standar d	Price	USD	35245	Yes	Parliam entary	20/06/ 98	0	1	1	-0.3538	5	1	0	0	1	16,1471 6307	9,53994 3021
CZECH REPUBL IC	21/12/ 95	920000	MSEUS CZ Index	MSCI Emergi ng Market s Czech Republi c USD	Standar d	Price	USD	35245	Yes	Parliam entary	15/06/ 02	0	1	1	-0,936	4	0	0	0	1	16,1379 7377	9,65184 949
CZECH REPUBL IC	21/12/ 95	920000	MSEUS CZ Index	MSCI Emergi ng Market s Czech Republi c USD	Standar d	Price	USD	35245	Yes	Parliam entary	3/06/06	1	1	1	-0,2944	5	1	0	0	1	16,1444 1134	9,85802 3957

FRANCE	7/08/61	925000	MSDUF R Index	MSCI France USD	Standard	Price	USD	31502	Yes	Parliamentary	6/05/07	1	1	0	0,062	1	0	0	0	0	17,9420	10,6389
FRANCE	7/08/61	925000	MSDUF R Index	MSCI France USD	Standard	Price	USD	31502	Yes	Parliamentary	6/05/12	0	1	0	0,032	1	1	0	0	0	17,9667	10,6274
GERMA NY	27/09/61	928000	MSDUG R Index	MSCI Germany USD	Standard	Price	USD	31502	Yes	Parliamentary	2/12/90	1	1	1	-0,1236	5	0	0	0	0	18,1904	10,3848
GERMA NY	27/09/61	928000	MSDUG R Index	MSCI Germany USD	Standard	Price	USD	31502	Yes	Parliamentary	16/10/94	1	1	1	-0,125	5	0	0	0	0	18,2153	10,4461
GERMA NY	27/09/61	928000	MSDUG R Index	MSCI Germany USD	Standard	Price	USD	31502	Yes	Parliamentary	27/09/98	0	1	1	-0,1814	5	1	0	0	0	18,2228	10,5057
GERMA NY	27/09/61	928000	MSDUG R Index	MSCI Germany USD	Standard	Price	USD	31502	Yes	Parliamentary	22/09/02	0	1	1	-0,2296	5	0	0	0	0	18,2281	10,5698
GERMA NY	27/09/61	928000	MSDUG R Index	MSCI Germany USD	Standard	Price	USD	31502	Yes	Parliamentary	18/09/05	1	1	1	-0,2966	5	1	1	0	0	18,2279	10,5843
GERMA NY	27/09/61	928000	MSDUG R Index	MSCI Germany USD	Standard	Price	USD	31502	Yes	Parliamentary	27/09/09	1	1	1	-0,324	5	0	0	0	0	18,2210	10,6162
GERMA NY	27/09/61	928000	MSDUG R Index	MSCI Germany USD	Standard	Price	USD	31502	Yes	Parliamentary	22/09/13	1	1	1	-0,17	4	0	0	0	0	18,2055	10,6999
GRECE	27/09/61	930000	MSDUG R Index	MSCI Greece USD	Standard	Price	USD	36892	Yes	Parliamentary	7/03/04	1	1	0	-0,0928	4	1	0	1	1	16,2185	10,2260
GRECE	27/09/61	930000	MSDUG R Index	MSCI Greece USD	Standard	Price	USD	36892	Yes	Parliamentary	16/09/07	1	1	0	-0,1632	5	0	0	1	1	16,2281	10,3107
GRECE	27/09/61	930000	MSDUG R Index	MSCI Greece USD	Standard	Price	USD	36892	Yes	Parliamentary	4/10/09	0	1	0	-0,1216	5	1	1	1	1	16,2300	10,2581
GRECE	27/09/61	930000	MSDUG R Index	MSCI Greece USD	Standard	Price	USD	36892	Yes	Parliamentary	6/05/12	1	1	1	-0,623	7	1	0	1	1	16,2179	10,0358
GRECE	27/09/61	930000	MSDUG R Index	MSCI Greece USD	Standard	Price	USD	36892	Yes	Parliamentary	17/06/12	1	1	1	-0,4068	7	0	1	1	1	16,2179	10,0358
GRECE	27/09/61	930000	MSDUG R Index	MSCI Greece USD	Standard	Price	USD	36892	Yes	Parliamentary	25/01/15	0	1	1	-0,2732	7	1	0	1	1	16,1969	10,0247
GRECE	27/09/61	930000	MSDUG R Index	MSCI Greece USD	Standard	Price	USD	36892	Yes	Parliamentary	20/09/15	0	1	1	-0,2908	8	0	1	1	1	16,1969	10,0247
HUNGA RY	7/05/96	934800	MSEUS HG Index	MSCI Emerging Markets Hungary USD	Standard	Price	USD	36892	Yes	Parliamentary	21/04/02	0	1	1	-0,159	4	1	0	0	1	16,1338	9,33961

HUNGAR RY	7/05/96	934800	MSEUS HG Index	MSCI Emergi ng Market s Hungar y USD	Standar d	Price	USD	36892	Yes	Parliam entary	23/04/ 06	0	1	1	-0,1358	5	0	0	0	1	16,1252 073	9,51537 2692
HUNGAR RY	7/05/96	934800	MSEUS HG Index	MSCI Emergi ng Market s Hungar y USD	Standar d	Price	USD	36892	Yes	Parliam entary	25/04/ 10	0	1	0	0,0546	5	1	0	0	1	16,1180 9765	9,47466 6848
HUNGAR RY	7/05/96	934800	MSEUS HG Index	MSCI Emergi ng Market s Hungar y USD	Standar d	Price	USD	36892	Yes	Parliam entary	6/04/14	0	1	0	-0,1026	4	0	0	0	1	16,1046 0709	9,54982 8162
IRELAN D	17/08/61	937200	MSDUI E Index	MSCI Ireland USD	Standar d	Price	USD	32993	Yes	Parliam entary	25/11/ 92	0	1	1	-0,2178	7	0	0	0	0	15,0837 2496	10,1055 8733
IRELAN D	17/08/61	937200	MSDUI E Index	MSCI Ireland USD	Standar d	Price	USD	32993	Yes	Parliam entary	6/06/97	0	1	1	-0,2134	9	0	0	0	0	15,1141 4788	10,4399 3995
IRELAN D	17/08/61	937200	MSDUI E Index	MSCI Ireland USD	Standar d	Price	USD	32993	Yes	Parliam entary	17/05/02	0	1	1	-0,1704	8	0	0	0	0	15,1808 8767	10,7581 9178
IRELAN D	17/08/61	937200	MSDUI E Index	MSCI Ireland USD	Standar d	Price	USD	32993	Yes	Parliam entary	24/05/07	0	1	1	-0,1688	7	0	0	0	0	15,2915 9992	10,8971 3945
IRELAN D	17/08/61	937200	MSDUI E Index	MSCI Ireland USD	Standar d	Price	USD	32993	Yes	Parliam entary	25/02/11	1	1	1	-0,278	8	1	1	0	0	15,3360 954	10,7859 8765
IRELAN D	17/08/61	937200	MSDUI E Index	MSCI Ireland USD	Standar d	Price	USD	32993	Yes	Parliam entary	26/02/16	1	1	1	-0,4906	10	0	0	0	0	15,3660 4588	11,1282 3324
ISRAEL	7/09/10	300400	MSEUSI S Index	MSCI Emergi ng Market s Israel USD	Standar d	Price	USD	34365	No	Parliam entary	29/05/96	1	1	1	0,01	11	1	0	0	1	15,5533 5928	10,1093 2337
ISRAEL	7/09/10	300400	MSEUSI S Index	MSCI Emergi ng Market s Israel USD	Standar d	Price	USD	34365	No	Parliam entary	17/05/99	0	1	1	0,122	15	1	0	0	1	15,6279 3829	10,1486 7114
ISRAEL	7/09/10	300400	MSEUSI S Index	MSCI Emergi ng Market s Israel USD	Standar d	Price	USD	34365	No	Parliam entary	6/02/01	1	1	1	0,248	12	1	1	0	1	15,6778 8381	10,1835 7195

JAPAN	28/04/64	939200	MSDUJ N Index	MSCI Japan USD	Standard	Price	USD	31502	Yes	Parliamentary	23/07/93	0	1	1	-0.028	10	1	0	0	1	18,64193451	10,574161
JAPAN	28/04/64	939200	MSDUJ Japan N Index	MSCI Japan USD	Standard	Price	USD	31502	Yes	Parliamentary	20/10/96	1	1	1	-0.24	8	1	0	0	1	18,65071252	10,63417263
JAPAN	28/04/64	939200	MSDUJ Japan N Index	MSCI Japan USD	Standard	Price	USD	31502	Yes	Parliamentary	25/06/00	1	1	1	-0.1806	10	0	0	0	1	18,6591148	10,64955179
JAPAN	28/04/64	939200	MSDUJ Japan N Index	MSCI Japan USD	Standard	Price	USD	31502	Yes	Parliamentary	9/11/03	1	1	1	-0.123	9	0	0	0	1	18,66455982	10,66364189
JAPAN	28/04/64	939200	MSDUJ Japan N Index	MSCI Japan USD	Standard	Price	USD	31502	Yes	Parliamentary	11/09/05	1	1	0	-0.0446	9	0	1	0	1	18,66572668	10,70099289
JAPAN	28/04/64	939200	MSDUJ Japan N Index	MSCI Japan USD	Standard	Price	USD	31502	Yes	Parliamentary	30/08/09	0	1	0	-0.2712	10	1	0	0	1	18,66370535	10,66263015
JAPAN	28/04/64	939200	MSDUJ Japan N Index	MSCI Japan USD	Standard	Price	USD	31502	Yes	Parliamentary	16/12/12	1	1	0	-0.1396	11	1	0	0	1	18,66374456	10,72115417
JAPAN	28/04/64	939200	MSDUJ Japan N Index	MSCI Japan USD	Standard	Price	USD	31502	Yes	Parliamentary	14/12/14	1	1	0	-0.038	9	0	1	0	1	18,66374456	10,74770522
KOREA	12/12/96	941000	MSEUS Korea N Index	MSCI Emerging Markets Korea USD	Standard	Price	USD	32598	Yes	Presidential	18/12/92	1	0	0	-0.16	1	1	0	0	1	17,59395554	9,18184353
KOREA	12/12/96	941000	MSEUS Korea N Index	MSCI Emerging Markets Korea USD	Standard	Price	USD	32598	Yes	Presidential	19/12/97	0	0	0	-0.194	1	1	0	0	1	17,64314231	9,509073884
KOREA	12/12/96	941000	MSEUS Korea N Index	MSCI Emerging Markets Korea USD	Standard	Price	USD	32598	Yes	Presidential	19/12/02	1	0	0	-0.0218	1	0	0	0	1	17,67880918	9,725725714
KOREA	12/12/96	941000	MSEUS Korea N Index	MSCI Emerging Markets Korea USD	Standard	Price	USD	32598	Yes	Presidential	19/12/07	1	0	0	-0.026	1	1	0	0	1	17,69908573	9,924330946
KOREA	12/12/96	941000	MSEUS Korea N Index	MSCI Emerging Markets Korea USD	Standard	Price	USD	32598	Yes	Presidential	19/12/12	0	0	0	0.032	1	1	0	0	1	17,72762236	10,0525251

MEXIC O	18/05/94	848400	MSEUT MXF Index	MSCI Emergi ng Market s Mexico USD	Standar d	Price	USD	36892	Yes	Preside ntial	2/07/00	1	0	0	-0.1496	1	1	0	0	0	1	18,4295 9886	9,06134 5266
MEXIC O	18/05/94	848400	MSEUT MXF Index	MSCI Emergi ng Market s Mexico USD	Standar d	Price	USD	36892	Yes	Preside ntial	2/07/06	1	0	1	-0.2822	1	0	0	0	0	1	18,5014 1982	9,13078 7509
MEXIC O	18/05/94	848400	MSEUT MXF Index	MSCI Emergi ng Market s Mexico USD	Standar d	Price	USD	36892	Yes	Preside ntial	1/07/12	1	0	1	-0.3626	1	1	0	0	0	1	18,5781 4422	9,17963 5434
NETHER LANDS	13/11/61	952800	MSDUN E Index	MSCI Netherl ands USD	Standar d	Price	USD	31502	Yes	Parliam entary	6/09/89	1	1	1	-0.2938	9	0	0	0	0	0	16,5134 3702	10,4428 9688
NETHER LANDS	13/11/61	952800	MSDUN E Index	MSCI Netherl ands USD	Standar d	Price	USD	31502	Yes	Parliam entary	3/05/94	0	1	1	-0.52	11	1	0	0	0	0	16,5487 6316	10,5311 6892
NETHER LANDS	13/11/61	952800	MSDUN E Index	MSCI Netherl ands USD	Standar d	Price	USD	31502	Yes	Parliam entary	6/05/98	0	1	1	-0.42	9	0	0	0	0	0	16,5696 304	10,6625 6203
NETHER LANDS	13/11/61	952800	MSDUN E Index	MSCI Netherl ands USD	Standar d	Price	USD	31502	Yes	Parliam entary	15/05/02	1	1	1	-0.442	10	1	0	0	0	0	16,5973 6435	10,7475 317
NETHER LANDS	13/11/61	952800	MSDUN E Index	MSCI Netherl ands USD	Standar d	Price	USD	31502	Yes	Parliam entary	22/01/03	1	1	1	-0.428	9	0	1	0	0	0	16,6020 8231	10,7456 7119
NETHER LANDS	13/11/61	952800	MSDUN E Index	MSCI Netherl ands USD	Standar d	Price	USD	31502	Yes	Parliam entary	22/11/06	1	1	1	-0.47	10	0	1	0	0	0	16,6094 9989	10,8144 826
NETHER LANDS	13/11/61	952800	MSDUN E Index	MSCI Netherl ands USD	Standar d	Price	USD	31502	Yes	Parliam entary	9/06/10	1	1	1	-0.59	10	1	0	0	0	0	16,6258 3993	10,8267 2489
NETHER LANDS	13/11/61	952800	MSDUN E Index	MSCI Netherl ands USD	Standar d	Price	USD	31502	Yes	Parliam entary	12/09/12	1	1	1	-0.464	11	0	1	0	0	0	16,6342 0489	10,8242 0532
NEW ZEALAN D	29/05/73	955400	MSDUN Z Index	MSCI New	Standar d	Price	USD	32142	Yes	Parliam entary	27/10/90	1	1	0	-0.0436	3	0	0	0	0	1	15,0363 6555	10,1071 4964

POLAN D	22/11/ 96	961600	MSEUS PO Index	MSCI Emergi ng Market s Poland USD	Standar d	Price	USD	34607	Yes	Parliam entary	21/09/ 97	1	1	1	-0,324	6	1	0	0	0	0	17,4607 5156	8,91495 8638
POLAN D	22/11/ 96	961600	MSEUS PO Index	MSCI Emergi ng Market s Poland USD	Standar d	Price	USD	34607	Yes	Parliam entary	23/09/ 01	0	1	1	-0,18	7	1	0	0	0	0	17,4596 7477	9,06350 9752
POLAN D	22/11/ 96	961600	MSEUS PO Index	MSCI Emergi ng Market s Poland USD	Standar d	Price	USD	34607	Yes	Parliam entary	25/09/ 05	1	1	1	-0,46	6	1	0	0	0	0	17,4573 3273	9,20550 1857
POLAN D	22/11/ 96	961600	MSEUS PO Index	MSCI Emergi ng Market s Poland USD	Standar d	Price	USD	34607	Yes	Parliam entary	21/10/ 07	1		1	-0,17	5	1	1	0	0	0	17,4561 4391	9,33462 7467
POLAN D	22/11/ 96	961600	MSEUS PO Index	MSCI Emergi ng Market s Poland USD	Standar d	Price	USD	34607	Yes	Parliam entary	9/10/1 1	1	1	1	-0,216	6	0	0	0	0	0	17,4668 3533	9,47774 1128
POLAN D	22/11/ 96	961600	MSEUS PO Index	MSCI Emergi ng Market s Poland USD	Standar d	Price	USD	34607	Yes	Parliam entary	25/10/ 15	1	1	1	-0,2484	6	1	0	0	0	0	17,4668 3533	9,57935 9672
PORTU GAL	4/08/6 1	962000	MSDUS PT Index	MSCI Portuga l USD	Standar d	Price	USD	32659	Yes	Parliam entary	10/10/ 99	0	1	0	-0,118	5	0	0	0	0	0	16,1396 4479	9,94629 0091
PORTU GAL	4/08/6 1	962000	MSDUS PT Index	MSCI Portuga l USD	Standar d	Price	USD	32659	Yes	Parliam entary	17/03/ 02	0	1	1	-0,196	5	1	0	0	0	0	16,1592 0209	9,99081 3239
PORTU GAL	4/08/6 1	962000	MSDUS PT Index	MSCI Portuga l USD	Standar d	Price	USD	32659	Yes	Parliam entary	20/02/ 05	0	1	0	-0,1	5	1	0	0	0	0	16,1672 0291	9,99901 8721
PORTU GAL	4/08/6 1	962000	MSDUS PT Index	MSCI Portuga l USD	Standar d	Price	USD	32659	Yes	Parliam entary	20/02/ 09	0	1	1	-0,268	5	0	0	0	0	0	16,1733 6478	10,0046 4171

PORTUGAL	4/08/61	PT 962000	MSDUS PT Index	MSCI Portugal USD	Standard d	Price	USD	32659	Yes	Parliamentary	5/06/11	0	1	1	-0.2268	5	1	1	0	0	0	0	16,17235275	10,00601667
SPAIN	3/08/61	972400	MSDUS P Index	MSCI Spain USD	Standard d	Price	USD	31502	Yes	Parliamentary	29/10/89	0	1	0	-0.268	13	0	0	0	0	0	0	17,47448168	9,971962922
SPAIN	3/08/61	972400	MSDUS P Index	MSCI Spain USD	Standard d	Price	USD	31502	Yes	Parliamentary	6/06/93	0	1	1	-0.224	11	0	0	0	0	0	0	17,48816103	10,02529026
SPAIN	3/08/61	972400	MSDUS P Index	MSCI Spain USD	Standard d	Price	USD	31502	Yes	Parliamentary	3/03/96	1	1	1	-0.224	11	1	1	0	0	0	0	17,50149207	10,0950468
SPAIN	3/08/61	972400	MSDUS P Index	MSCI Spain USD	Standard d	Price	USD	31502	Yes	Parliamentary	12/03/00	1	1	0	-0.11	12	0	0	0	0	0	0	17,51815459	10,25218655
SPAIN	3/08/61	972400	MSDUS P Index	MSCI Spain USD	Standard d	Price	USD	31502	Yes	Parliamentary	14/03/04	0	1	1	-0.148	11	1	0	0	0	0	0	17,57343018	10,32708722
SPAIN	3/08/61	972400	MSDUS P Index	MSCI Spain USD	Standard d	Price	USD	31502	Yes	Parliamentary	9/03/08	0	1	1	-0.122	10	0	0	0	0	0	0	17,64378602	10,38227367
SPAIN	3/08/61	972400	MSDUS P Index	MSCI Spain USD	Standard d	Price	USD	31502	Yes	Parliamentary	20/11/11	1	1	0	-0.108	13	1	1	0	0	0	0	17,66003087	10,31972321
SPAIN	3/08/61	972400	MSDUS P Index	MSCI Spain USD	Standard d	Price	USD	31502	Yes	Parliamentary	20/12/15	1	1	1	-0.426	10	0	1	0	0	0	0	17,65767446	10,32508735
SPAIN	3/08/61	972400	MSDUS P Index	MSCI Spain USD	Standard d	Price	USD	31502	Yes	Parliamentary	26/06/16	1	1	1	-0.34	9	0	1	0	0	0	0	17,6563868	10,35562019
SWEDEN	28/09/61	975200	MSDUS W Index	MSCI Sweden USD	Standard d	Price	USD	31502	Yes	Parliamentary	15/09/91	0	1	1	-0.246	7	0	0	0	0	0	1	15,96929107	10,51415744
SWEDEN	28/09/61	975200	MSDUS W Index	MSCI Sweden USD	Standard d	Price	USD	31502	Yes	Parliamentary	18/09/94	0	1	1	-0.094	7	0	0	0	0	0	1	15,98807181	10,50286361
SWEDEN	28/09/61	975200	MSDUS W Index	MSCI Sweden USD	Standard d	Price	USD	31502	Yes	Parliamentary	20/09/98	0	1	1	-0.272	7	0	0	0	0	0	1	15,99603795	10,61939945
SWEDEN	28/09/61	975200	MSDUS W Index	MSCI Sweden USD	Standard d	Price	USD	31502	Yes	Parliamentary	15/09/02	0	1	1	-0.203	7	0	0	0	0	0	1	16,00436218	10,73768172
SWEDEN	28/09/61	975200	MSDUS W Index	MSCI Sweden USD	Standard d	Price	USD	31502	Yes	Parliamentary	17/09/06	0	1	1	-0.3	7	0	0	0	0	0	1	16,02164026	10,85989302
SWEDEN	28/09/61	975200	MSDUS W Index	MSCI Sweden USD	Standard d	Price	USD	31502	Yes	Parliamentary	19/09/10	0	1	1	-0.386	8	0	0	0	0	0	1	16,05389051	10,86046716
SWEDEN	28/09/61	975200	MSDUS W Index	MSCI Sweden USD	Standard d	Price	USD	31502	Yes	Parliamentary	14/09/14	0	1	1	-0.38	8	0	0	0	0	0	1	16,08723698	10,88859416
SWITZERLAND	28/09/61	975600	MSDUS Z Index	MSCI Switzerland and USD	Standard d	Price	USD	31502	Yes	Parliamentary	20/10/91	1	1	1	-0.58	17	0	0	0	0	0	0	15,73243008	11,03137193

SWITZE RLAND	28/09/ 61	975600	MSDUS Z Index	MSCI Switzerl and USD	Standar d	Price	USD	31502	Yes	Parlam entary	22/10/ 95	0	1	1	-0.564	14	1	0	0	0	0	15,7672 1631	11,0162 6368
SWITZE RLAND	28/09/ 61	975600	MSDUS Z Index	MSCI Switzerl and USD	Standar d	Price	USD	31502	Yes	Parlam entary	24/10/ 99	0	1	1	-0.55	15	0	0	0	0	0	15,7817 8214	11,0744 4787
SWITZE RLAND	28/09/ 61	975600	MSDUS Z Index	MSCI Switzerl and USD	Standar d	Price	USD	31502	Yes	Parlam entary	19/10/ 03	0	1	1	-0.466	14	1	0	0	0	0	15,8087 1342	11,1050 3137
SWITZE RLAND	28/09/ 61	975600	MSDUS Z Index	MSCI Switzerl and USD	Standar d	Price	USD	31502	Yes	Parlam entary	21/10/ 07	0	1	1	-0.422	12	0	0	0	0	0	15,8372 0606	11,2161 0851
SWITZE RLAND	28/09/ 61	975600	MSDUS Z Index	MSCI Switzerl and USD	Standar d	Price	USD	31502	Yes	Parlam entary	23/10/ 11	0	1	1	-0.468	11	0	0	0	0	0	15,8839 4145	11,2223 187
SWITZE RLAND	28/09/ 61	975600	MSDUS Z Index	MSCI Switzerl and USD	Standar d	Price	USD	31502	Yes	Parlam entary	18/10/ 15	0	1	1	-0.412	12	0	0	0	0	0	15,9302 4661	11,2328 521
TURKEY	2/08/6 1	979200	MSEUS TK Index	MSCI Emergi ng Market s Turkey USD	Standar d	Price	USD	32904	Yes	Parlam entary	20/10/ 91	0	1	1	-0.4594	5	1	0	0	0	1	17,8418 4391	8,78766 9559
TURKEY	2/08/6 1	979200	MSEUS TK Index	MSCI Emergi ng Market s Turkey USD	Standar d	Price	USD	32904	Yes	Parlam entary	24/12/ 95	0	1	1	-0.5724	5	1	0	0	0	1	17,9057 8016	8,87254 6827
TURKEY	2/08/6 1	979200	MSEUS TK Index	MSCI Emergi ng Market s Turkey USD	Standar d	Price	USD	32904	Yes	Parlam entary	18/04/ 99	1	1	1	-0.5564	5	1	0	0	0	1	17,9644 0643	8,95018 7004
TURKEY	2/08/6 1	979200	MSEUS TK Index	MSCI Emergi ng Market s Turkey USD	Standar d	Price	USD	32904	Yes	Parlam entary	3/11/0 2	1	1	0	-0.3144	3	1	1	0	0	1	18,0052 0318	8,97444 1386
TURKEY	2/08/6 1	979200	MSEUS TK Index	MSCI Emergi ng Market s Turkey USD	Standar d	Price	USD	32904	Yes	Parlam entary	22/07/ 07	1	1	0	-0.0684	4	0	0	0	0	1	18,0662 6197	9,26332 4908

			s Turkey USD																		
			MSCI Emergi ng Market s																		
TURKEY	2/08/6 1	979200	MSEUS TK Index	Standar d	Price	USD	32904	Yes	Parliam entary	12/06/ 11	1	1	0	-0.0034	4	0	0	0	1	18,1225 9312	9,35857 3006
			MSCI Emergi ng Market s																		
TURKEY	2/08/6 1	979200	MSEUS TK Index	Standar d	Price	USD	32904	Yes	Parliam entary	7/06/1 5	1	1	0	-0.1826	4	0	0	0	1	18,1807 7245	9,54994 0265
			MSCI Emergi ng Market s																		
TURKEY	2/08/6 1	979200	MSEUS TK Index	Standar d	Price	USD	32904	Yes	Parliam entary	1/11/1 5	1	1	0	-0.01	4	0	1	0	1	18,1807 7245	9,54994 0265
			MSCI Emergi ng Market s																		
UNITED KINGD OM	2/05/6 1	982600	MSCI UK USD	Standar d	Price	USD	31502	Yes	Parliam entary	9/04/9 2	1	1	0	-0.162	5	0	0	0	0	17,8687 7268	10,2486 2655
UNITED KINGD OM	2/05/6 1	982600	MSCI UK USD	Standar d	Price	USD	31502	Yes	Parliam entary	1/05/9 7	0	1	0	-0.136	6	1	0	0	0	17,8813 5276	10,3796 3808
UNITED KINGD OM	2/05/6 1	982600	MSCI UK USD	Standar d	Price	USD	31502	Yes	Parliam entary	7/06/0 1	0	1	0	-0.186	7	0	0	0	0	17,8949 6142	10,4934 0624
UNITED KINGD OM	2/05/6 1	982600	MSCI UK USD	Standar d	Price	USD	31502	Yes	Parliam entary	5/05/0 5	0	1	0	-0.296	7	0	0	0	0	17,9030 1579	10,5836 7002
UNITED KINGD OM	2/05/6 1	982600	MSCI UK USD	Standar d	Price	USD	31502	Yes	Parliam entary	6/05/1 0	1	1	1	-0.278	7	1	0	0	0	17,9412 6722	10,5639 6831
UNITED KINGD OM	2/05/6 1	982600	MSCI UK USD	Standar d	Price	USD	31502	Yes	Parliam entary	7/05/1 5	1	1	0	-0.264	6	0	0	0	0	17,9921 2059	10,6260 9314
UNITED STATES	12/04/ 61	984000	MSCI USA	Standar d	Price	USD	31502	Yes	Preside ntial	3/11/9 2	0	0	0	-0.1398	1	1	0	0	0	19,3626 9458	10,5052 8959
UNITED STATES	12/04/ 61	984000	MSCI USA	Standar d	Price	USD	31502	Yes	Preside ntial	5/11/9 6	0	0	0	-0.016	1	0	0	0	0	19,4116 8666	10,5874 5372
UNITED STATES	12/04/ 61	984000	MSCI USA	Standar d	Price	USD	31502	Yes	Preside ntial	7/11/0 0	1	0	0	-0.042	1	1	0	0	0	19,4579 9335	10,7148 2281
UNITED STATES	12/04/ 61	984000	MSCI USA	Standar d	Price	USD	31502	Yes	Preside ntial	2/11/0 4	1	0	0	0.014	1	0	0	0	0	19,4950 1844	10,7693 2947

UNITED STATES	12/04/61	984000	MSDUUS Index	MSCI USA USD	Standard	Price	USD	31502	Yes	Presidential	4/11/08	0	0	0	0.058	1	1	0	0	0	0	19,53284742	10,80551419
UNITED STATES	12/04/61	984000	MSDUUS Index	MSCI USA USD	Standard	Price	USD	31502	Yes	Presidential	6/11/12	0	0	0	0.022	1	0	0	0	0	0	19,56526049	10,8081147
UNITED STATES	12/04/61	984000	MSDUUS Index	MSCI USA USD	Standard	Price	USD	31502	Yes	Presidential	8/11/16	1	0	0	-0.078	1	1	0	0	0	0	19,59662063	10,86027172

Master thesis summary

Objectives

The objective of this master thesis is to highlight the potential influence of national elections on the stock market performance of 29 OECD countries during the period from 1989 to 2016.

Method

An event study and regression have been performed in order to highlight the movement of abnormal returns around the elections and test the significance of several parameters influence on the compounded abnormal returns.

Results

Regarding the event study, significant influences have been found on both long and short term bases around the event. Moreover, certain characteristics of the election appears to have a stronger impact on abnormal returns.

No significance was found regarding the regression on the multiple explanatory variables.

Conclusion

Three main periods have been identified with significant influence of elections on the performance of the stock exchange. The victory of a right wing candidate, a positive margin of victory and the fact that the elected party do not change from the previous cycle are the three characteristics that have a strong positive significant impact on elections abnormal returns. However, as the regression factors are not significant, further analysis have to be performed in order to identify the influencing parameters.