The Effect of Political Events on Stock Market Returns: Evidence from Four European Countries

Júlio Tiago Ramos da Silva Ribeiro

M

2021

U.PORTO

FEP FACULDADE DE ECONOMIA
UNIVERSIDADE DO PORTO

The Effect of Political Events on Stock Market Returns: Evidence from Four European Countries

Júlio Tiago Ramos da Silva Ribeiro

Dissertation
Master in Finance

Supervised by
Júlio Fernando Seara Sequeira da Mota Lobão, Ph.D.

2021

Acknowledgments

I would like to take this opportunity to thank all those who made it possible for me to come this far and allow me to carry out my thesis in the area that I have always loved since I was a child.

First of all, I would like to thank my family, dedicating a special word to my mother, who was always by my side in all situations, when things were going well and when things were going barely, offering me all the necessary resources and support required to be able to achieve my goals.

I would like to acknowledge all the support given by Professor Doctor Júlio Fernando Seara Sequeira da Mota Lobão, whose correct and concrete advice and all the teachings given to me on his part were vital for me to complete this dissertation.

I want also to dedicate a word to all my friends and colleagues who accompanied me and helped me in some way along this journey.

Finally, I would like to dedicate a special word to my grandfather. He passed away the day before I started my university career, and I know how much he wanted us to invest in our academic formation, knowing that we would have to work hard and strive to achieve this. Therefore, I am sure that he will be proud to finish my academic career in the area in which I have always dreamed of studying and I would like to thank all the inspiration given by him during this period.

Resumo

Esta tese examina um tópico que é extremamente interessante para todos aqueles que operam nos mercados financeiros e para todos aqueles que são investidores no mesmo ou apenas entusiastas, que é o que explica os movimentos nos mercados financeiros.

Para tal, a presente investigação pretende estudar o impacto de eventos políticos como eleições, por exemplo, nas rendibilidades dos mercados de ações de 4 países europeus. Para tal, 14 regressões diferentes foram estimadas pelo Ordinary-Least Squares (OLS), realizando os testes estatísticos apropriados para garantir a adequação do modelo e considerando primeiramente somente o momento em que o governo foi eleito para governar o país e, de seguida, será considerado todo o período em que um governo de uma determinada ideologia política está à frente do país, para cada um dos quatro países em estudo (Portugal, Espanha, França e Itália), cujos resultados serão apresentados em forma de tabela, ao longo do trabalho ou em apêndice.

Os resultados obtidos demonstram a importância das variáveis económicas que foram utilizadas no modelo para explicar o comportamento do mercado bolsista, em detrimento das variáveis políticas. Estes resultados estão em linha com os que foram obtidos em alguns estudos e estão em desacordo com os resultados obtidos noutros. Também é relevante indicar que não foram registadas mudanças significativas pela introdução de variáveis como o aparecimento do Euro, o potencial impacto das eleições (com algumas exceções na Espanha), a Crise Financeira Global à qual se seguiu a Crise das Dívidas Soberanas Europeias e a distinção entre eleições esperadas e eleições inesperadas.

Sendo assim, e assumindo todas as limitações que um estudo desta dimensão poderá apresentar, as conclusões a que se chegou foi pela existência da "business cycle theory" e pela ausência de argumentos em relação à "partisan theory", como tal, os investidores deverão estar mais preocupados em alterações que ocorram em variáveis económicas do que em alterações na orientação ideológica do governo nacional.

Palavras-chave: Eleições, Teoria Partidária, Euro, Mercados Financeiros, Teoria dos Ciclos de Negócios

Abstract

This thesis examines a topic that is extremely interesting for those who operate in the financial markets and for all those who are investors in it or just enthusiasts, which is what explains the movements in stock markets.

As such, the present investigation aims to study the impact of political events, including elections, on stock market returns in four European Countries. To do that, 14 different regressions were estimated by Ordinary-Least Squares (OLS) model, performing the appropriate statistical tests to ensure the suitability of the model and considering initially only the time when the government was elected to govern the country and, hereafter, the entire period when the government of a particular political ideology is leading the country, for each of the four countries under study (Portugal, Spain, France, and Italy), whose results will be presented in a table format, either during the work or in an appendix.

Our results demonstrate the importance of the economic variables that were used in the model to explain the behaviour of the stock market, to the detriment of political variables. These results are the same that are obtained in other studies and disagreement with many others. It is relevant to indicate that were no significant changes due to the introduction of variables such as the appearance of the Euro, the possible impact of the elections with some exceptions in Spain), the Global Financial Crisis followed by the European Sovereign Debt Crisis, and the distinction between elections that were expected and elections that were unexpected.

Therefore, and assuming all the limitations that a study of this dimension may present, the conclusion reached is due to the existence of the "business cycle theory" and the lack of arguments about the "partisan theory", as such, investors should be more concerned about changes that occur in economic variables than which may occur in the ideological orientation of the national government.

Keywords: Elections, Partisan Theory, Business Cycle Theory, Euro, Stock Markets

Table of Contents

List of Tables

List of Figures

1. Introduction

Since the Middle Age, small institutions have been created and the existence of the first loans is documented (Pamuk, 2004). Since that period, markets have evolved until the emergence of financial markets globally, until they reach the dimension that we know today (Kindleberger, 2015).

Financial markets are relevant in the citizens' lives and companies, taking a crucial role in our economy and lives, and if, for any reason, they are not performing well, the whole economy and the well-being of their citizens will suffer, being this the main reason why all the knowledge we can acquire in this area is relevant and make this area a scientific topic when it is spent so much time and resources. A lot of scientific work has been done in the last decades to understand the behavior of the financial markets and to obtain all the possible information with the available data. This has implied, for example, carrying out studies about the performance of financial markets during the governance of different parties, understand the possible effects of other countries on this governance, looking at the performance of the financial markets over the years (for example, analyzing the existence or not of an electoral cycle) or also trying to understand the impact on the financial markets of the economic policies taken by the ruling party, previously studied by people such as Niederhoffer et al. (1970), Hibbs (1977), Chappel & Keech (1986), Alesina (1988), citing just some of the best-known authors who studied this topic.

In the last half-century, new things have been discovered and, at present, there are still many others that are the subject of debate in the scientific community about their existence or not, because there are different opinions about certain events. Therefore, in this work, the objective will be to analyze which are the most important variables to explain the performance of stock market indices for the countries under study, looking at recent variables that have not been so studied by other authors. This type of investigation is relevant due to, on one hand, investors are interested in having as much information as possible to be able to carry out investments with a greater degree of security and also with higher returns and, on the other hand, the information allows governments and authorities to understand the effects on society that their policies have in people. Considering these factors, I believe that my dissertation could be an addition to the scientific literature in this area. This dissertation will replicate the study that has been done before by Vuchelen (2003) for the Belgian market for the countries of Portugal, Spain, France, and Italy. To achieve this,

quarterly data will be collected, as well as the most important macroeconomic indicators necessary to proceed with the development of this study.

This work will conclude that economic variables, such as the existence of a reference index, the dollar exchange rate, and the differentials in the long-term interest rate against a reference country of the countries concerned are very relevant to explain the performance of financial markets, contrary to what happens with the political variables which, with few exceptions in the cases of France and Spain, are not statistically significant to explain the performance of the financial markets, the same can be said of the introduction of the Euro and when we consider the financial crisis.

The structure will be the following: in chapter 2, a literature review will be carried out, analyzing what other authors have already concluded in the past, in this case on financial markets and the impact of political events, on the different types of political representation in Parliament and analyzing the issue of the Euro and its impacts, respectively. In chapter 3, the political history of each country will be referred to, in chapter 4 will occur the presentation of the variables that will be used in the model, as well as the models that will be tested and whose results and main observations will be presented in chapter 5. In chapter 6, robustness tests will be performed, modifying some variables that may be susceptible to different interpretations, trying to understand if this has implications in the results and, at the end of this chapter, will be carried out an endogeneity test to see if there are no problems from this point in the estimated regressions. Finally, in chapter 7, the conclusions of the work will be presented, followed by the bibliography and the annexes.

2. Literature Review

In this chapter will be done a literature review, looking at what researchers in this field have concluded on the topics that will be analyzed in this work: therefore, this chapter will be divided into three sub-points, being that in the first one we will look at the conclusions of further studies related to the financial markets, followed by an analysis of the different electoral systems and the main differences between the majority, the proportional and the mixed system and, finally, give a perspective of the process that ended with the introduction of the Euro, as we know it today, in many European countries as the single currency.

2.1. The stock market impacts of political events

Before we present any information about this topic, is important to distinguish between democratic and non-democratic countries. About this, and according to Golder (2005, pp.104) and Bormann & Golder (2013, pp.360), a regime is considered not democratic if either "(i) the chief executive is not elected; (ii) the legislature is not elected; (iii) there is no more than one party; or (iv) there has been no alternation in power". So, in a democratic country, regardless of the electoral system chosen by the institutions of that country, the people are called to vote with a certain periodicity of time, when they have the option to let the incumbent continue or to choose another party to rule the country in the next years.

Bearing in mind that not all political parties have the same ideological guidelines and considering the natural concern of investors in maximizing the returns obtained from the investment made with the minimum level of risk possible to take, a relevant question certainly arose among investors, which was to analyze whether there was any impact in terms of electoral cycles and the candidates who are elected.

Considering this, it is natural that, in the past, as there are now, many authors have studied the impact of the elections on stock markets. Niederhoffer et al. (1970), using U.S. data since 1900 in presidential elections where several Republicans and Democrats were elected during the period in question, have supported the idea of the existence of four-year election cycle theory in stock returns, which is the idea that there are "strong incentive for politicians to stimulate the economy before a presidential election and to pursue deflationary polities following the election" (Allvine & O'Neill, 1980). During the last 50 years, was not

the only study to support this theory. Nordhaus (1975) made a study that confirms the existence of election cycle theory, especially in unplanned economies, which are more identified with capitalism that is known worldwide, and also MacRae (1977) agree what this idea when looked for the U.S. stock market between 1957 and 1972, data also confirmed by the study done by Tufte (1978), that provides evidence that both the British and American governments pursue expansionary policies in election years. The same result, for the United States (U.S.), was also obtained for the study of Allvine & O'Neill (1980), using the U.S. stock market data between 1948 and 1978, Herbst & Slinkman (1984, pp.41) that was clear to conclude, for the period between January 1926 and December 1977, not only that for 95 confidence interval "the evidence strongly supports the existence of a 48-month stock market cycle that is closely associated with U.S. presidential elections-a political-economic cycle" but also that even if has some evidence supporting the existence of a twenty-forth month stock market cycle, is not considered "political" because does not occur close to election dates. Other studies, like Hobbs and Riley (1984), Huang (1985), Gartner & Wellershoff (1995), Zhao et al. (2004), Grier (2008) & Sturm (2009), are some more examples of studies that allow the election cycle theory in the United States. More interesting than this conclusion previously obtained, is that the effects of the election cycle theory in the U.S. are an important factor in predicting not only the U.S. returns but also international stock returns around the world. In almost all countries, like happens in the U.S., the second year presents a lower return and, in many of the countries in the study, that return is negative, according to the results obtained by Foerster & Schmitz (1997).

However, it is important to note that not all authors have concluded that the election cycle theory exists, which are example the cases of Hibbs (1977), McCallum (1978), Golden & Poterba (1980), which consider that the power of the incumbent to manipulate economic policy is quite limited, Beck (1982, pp.208), who said that their paper "gives little or no support to the hypotheses of the political business cycle, at least in the American case", Richards (1986), Alesina & Roubini (1992), with an exception in this last paper of the cases of Germany and New Zealand and Bohl & Gottschalk (2006). Also, Chappell & Keech (1986) have discovered that the conventional political business cycle is observed by Republicans but not for Democrats, something that was allowed by Wong & Aleer (2009), but they considered that also in Democrats the conventional political business cycle exists, even though the effect is tiny when compared to Republican governments. So, even if most

studies indicate the existence of the election cycle theory, you need to be cautious about that topic - is far from being considered a universal truth across the scientific world.

The U.S. market is the most studied in the world, also because it is considered the main reference market that combines with the fact that the U.S. has been an economic world power for several decades. Because of that, previous studies like Foerster (1993) have also shown that changes in the U.S. administration have a positive impact in Canadian markets and, also, conclude for the existence of four-year cycle theory in the Canadian stock market for a 95-confidence interval in the Canadian and U.S. elections.

Looking at the literature existent in the short-term election, we can conclude that different governments with different perspectives in the areas of economic, social, environmental, and religious may be elected and which, of course, will tend to make different political choices in the governmental framework. So, we have a variety of literature that looks for the movement of market returns for a given investor's expectation of future government.

When you look for the study done by Białkowski et al. (2008), we can see at the beginning that even with all the election polls taking place in the weeks before the elections (and that, in many cases, they clearly say who will be the winner of the election), investors are still surprised by the results (verified by a reaction in the stock prices and an increase of volatility). However, like expected, this situation tends to be higher in a situation of uncertainty (a very disputed election or when a party may or may not win with a majority of the seats and, especially, in proportional electoral systems where several parties can win the election and many different coalitions can be formed, which can result in relevant changes in terms of government policies) – like concluded by Ortega & Tornero (2009). Also, Sturm (2009, pp.1363) has concluded that "it is clear that the presidential election cycle affects January's ability to predict subsequent returns over the remainder of the year", something interesting for the investors in the stock market.

On the other side, and now entering in the "partisan theory", explained by Alesina (1989, pp.87) that "the rational partisan theory has many elements. It is based on the hypothesis that different political parties have distinctly different positions, particularly different distributional values". So, it is expected when you look for sectors/industries, we observe a statistically significant impact of the elections like was concluded by Herron et al. (1999) for 15 economic sectors of 74 examined, Shon (2010) when looked at the U.S. elections and the recount results in Florida in 2000 and Oehler et al. (2013) look at the

abnormal stock price returns in eight industries, that are more exposure to uncertainty about tax policy, around the eight presidential elections in the U.S. between 1980 and 2008.

There are several examples that returns in the stock market are different given the government's ideological orientation in function. Hibbs (1977), in their partisan theory, show that left-wing governments tend to cater to the well-being of their working-class electorate by targeting unemployment whereas right-wing governments, prioritize reduction in inflation feared by higher income and occupational status groups, conclusions that were allowed by Alesina & Sachs (1988). Since then, the partisan theory has been discussed in the academic world, being many authors agree with them and others disagree.

Starting in the U.S., before going to the rest of the World, Niederhoffer et al. (1970), Stovall (1992), Gartner & Wellershoff (1995), and Bialkowski et al. (2008) concluded that there was no significant difference (on average) in performance in the financial markets between republican and democratic governments. Johnson et al. (1999) have shown that, when you look at the S&P 500, the returns with Democrat administrations are slightly higher than Republic administrations, but not statistically significant. They also have shown that are statistically significant the higher returns in Democrat administrations when you refer to small stocks, something that was also confirmed by Hensel & Ziemba (1995) and Lobo (1999). On the other side, Riley & Luksetich (1980) shown that markets prefer, at least in the short-term, Republicans than Democrats whereas Huang (1985), Santa-Clara & Valkanov (2003), and Booth & Booth (2003) have shown that the theoretical idea of markets prefer Republicans over Democrats was only a myth, because according to them, returns in the stock market were superior in Democratic governance, being this difference particularly large for small-stock portfolios, conclusions that also are shared by Belo et al. (2013) for firms with high government exposure.

Looking now at the rest of the world, we have numerous papers that allow us to analyze this situation. Some studies have concluded that when right-wing governments are leading the country, the performance of the stock market tends to be better than left-wing governments, like concluded by Hudson et al. (1998) for the United Kingdom and Cahan et al. (2005) for the New Zealand, Vuchelen (2003) when we look for the Belgian market, by Füss & Bechtel (2008) for Germany and by Furió & Pardó (2012) for Spain, contrary to what happens in the U.S. On the other hand, it is interesting to note that another study in Germany there does not appear to find any difference in the financial markets regardless of whether the government party is right-wing or left-wing, according to concluded by Döpke &

Pierdzioch (2006), Worthington (2009) found the same conclusion for the Australian stock market, Ortega & Tornero (2009) for the Spanish stock market and Bialkowski et al. (2008) show that do not observe statistically significant differences in returns between left-wing and right-wing executives when they take into account 24 stock markets and 173 different governments.

Looking now at the countries that belong to the Organization for Economic Co-operation and Development (OECD), we will start to look by the paper done by Carlsen & Pedersen (1999), the rational partisan theory has supported in the United Kingdom (UK), U.S. and Sweden and, until some point, in Canada and Australia but not for the cases of West Germany and Norway, at least with the data used. In their turn, Bialkowski et al. (2007) concluded that, on average, do not exist statistically significant differences in returns between left-wings and right-wing executives. In 19 of the 24 countries studied, these differences are also not statistically significant, exceptions being, for 10% statistically significant level, Austria and Germany (when right-wing executives outperform left-wing executives) and France, Hungary, and Czech Republic (when left-wing governments outperform the right-wing governments).

2.2. Majority Representation vs Proportional Representation vs Mixed Representation

To analyze the impact of several political events on the stock market is important to distinguish between majority-based electoral systems which result in single-party governments and proportional representation that produces coalition-based electoral systems.

Considered the oldest electoral system and used by many countries for being the simplest system, the majority-based electoral system is still important nowadays. Normally associated with two-party systems, elections are crucial political events because the results obtained on the day of the election usually retires all the uncertainty about what the next government will be and the underlying ideology in the next term. This system can be divided by the following electoral formulas, such as plurality, second ballot, and alternative voting systems, being the first two the most common systems. The plurality system, used in many countries and with a huge tradition in the Anglo-Saxon countries, also known as "first-past-the-post" tends to create a "manufactured majority" exaggerating the number of seats by the

leading party. In this system, candidates usually do not need to pass a minimum threshold of votes, but only have more votes than the opponent - this situation may mean that a party with 25% or 30% of the votes at a national level, in a very fragmented system, may have an absolute majority. On the other hand, considering that this system creates over-representation in the most voted parties and under-representation in the smallest parties (Yuval & Herne, 2005) – unless the representation of these small parties is highly concentrated (Bogdanov, 1984), it tends to provoke polarization between two political parties that are in the two opposite poles in the barricade, at the national level and the constitution level (Blais & Carty, 1991). In turn, the second ballot system is very common in many countries with direct presidential elections, like Portugal and France when their presidents are elected. This system is that in the first round of elections a candidate is elected who obtains more than 50% of the votes. If this does not happen, a second round will be held in a short period (usually less than one month), with the two most voted candidates in the first round, and the one who obtains the most votes in the second round wins the elections. For the French National Assembly, a unique electoral system called plurality-runoff is used.

However, many other countries follow electoral systems based on Proportional Representation. According to Monroe (1995), "Duncan Black (1958) defines proportional representation as an attempt to select a political assembly that is a "reflection" of the "shades of political opinion" in society as a whole". Unlikely happens in majority-based electoral systems, here we have several parties that can run for elections if they comply with a minimum set of rules defined in the constitution and the electoral laws of each country. Because of that, it is rare for a single party to be able to have most of the votes or the majority of the seats in parliament (and this is not its main function, but is the inclusion of minority voices), making it necessary to resort to coalitions to govern the country. This situation does not solve the uncertainty on the part of investors on the election day, but just when the coalition that will govern the country is announced (sometimes weeks or months after the election), which may not even include the party with the most votes in the previous election.

According to Norris (1997), the proportional representation systems consist of including open and closed party lists using largest remainders and highest averages formula. The seats in a constituency are divided according to the number of votes cast for party lists that can be open, when voters can express who is their favorite candidate, or closed, when voters are only able to vote in a party, being the lists previously defined by them. The electoral

formula varies among systems. In terms of largest remainders, we have the Hare quota, the Imperiali quota, and the Reinforced Imperiali quota and, because the outcome produces unallocated seats, several systems are used to solve that problem whereas in highest averages systems, according to Golder (2005), are included the D'Hondt formula (the far most common system used in 52% of all proportion system elections), the Sainte-Laguë method, considered the most proportional according to Benoit (2000) and the "modified" Sainte-Laguë method.

Lastly, we have the mixed systems, that try to take the advantages of the other electoral systems, mitigating their flaws, consisting of a "mixture" of the majority-based electoral system and the proportional representation system, that can assume a variety of alternative designs (for example, half of the members of a Parliament can be elected by the plurality system and the other half can be elected by the D'Hondt method in open lists). Here, this electoral system provides two votes for each voter for the legislature, one for each electoral system (Moser & Scheiner, 2004).

According to Vuchelen (2003, pp.90), four political events can affect the stock market, and I quote:

1. **The election results:** being the only source of uncertainty in majority-based systems, is the first information available on what might be the orientation of the next government;

2. **The time required to form a coalition.** Like I said behind, a certain amount of time is needed to establish contacts and agreements between the different parties and, sometimes, these negotiations do not reach a good result and new elections are called;

3. **The composition of a coalition.** The truth is that, even if the coalition is not known, it is, in some way, predictable. Left-wing parties tend to associate more with center and center-left parties and right-wing parties tend to associate more with right-wing parties. In addition, information leaks are normal and indicate the agreements that are expected to be established, even before they are official;

4. **The new government's policies.** When a coalition is announced, there is an indication of what policies will be taken. However, until the government program is officially known, there is always a source of uncertainty for investors about the policies to be carried out, which is relevant information for investors.

It is interesting to note that, according to studies such as Neto & Cox (1997, pp.167) and Ordeshook & Shvetsova (1994), "the effective number of parties appears to depend on the product of social heterogeneity and electoral permissiveness. Elections that are both held under more permissive rules (runoff rather than plurality) and occur in more diverse societies (with a larger effective number of ethnic groups) are those that tend to have the largest fields of contestants for the presidency". Therefore, it can be concluded that people adapt their vote according to the current electoral regime, and on the other hand, their socioeconomic status and other social issues have an impact when it comes to exercising their right to vote.

For this reason, and despite the socio-economic, cultural, and social differences not to be disregarded, the electoral system is very important because, at the end of an election, it can provide different results than if were used another electoral system because people may consider an alternative to vote that is suboptimal (more frequent in a majoritarian-based electoral system) but that would not be exactly the one they would put on a ballot paper if the electoral system were proportional.

2.3. The impact of the introduction of the Euro on financial markets

One of the topics that will be studied in this work will be the impact of the Euro on the economic policies of the countries under study. But, for that, it is important to demonstrate what the Euro is and previous studies in this area.

The Euro appears in 2002 and is the official currency of nineteen countries. The "dream" started in 1992 with the signature of the Maastricht Treaty, where it was decided to create an Economic and Monetary Union (EMU) and the countries that joined the Euro would withdraw the national currencies from circulation, just as it would happen. All of these conditions to join this new project were defined in the Maastricht Treaty, signed at that time by the twelve member-states to the European Economic Commission (EEC). According to them, the conditions under article 140th to join the Euro are as follows:

1. The annual inflation rate should be at most 1.5 percentage points above the average of the three best performing EU countries;
2. The budget deficit should be at most 3% of the gross domestic product;
3. Government debt should be at most 60% of the gross domestic product;

4. Long-term interest rates should be at most two percentage points above the average of the three best performing EU countries in terms of price stability;

5. The country should have been participating in the European exchange rate mechanism, which limits fluctuations between the Euro and national currencies, for two years

The objectives of the introduction of Euro currency were varied, start with promoting higher and easier mobility between citizens, goods, and services across Europe, to eliminating costs, sometimes large, with currency exchange, decreasing inflation across Europe to values close to but below 2% (the main objective allocated to the European Central Bank) and to facilitate international investments within the European Union with the elimination of a set of barriers that previously existed, according to the report "A União Económica e Monetária e o Euro" of the European Commission (2013).

In the 90s, especially after the Maastricht Treaty, numerous studies have been done looking at the effects that entry into the European Union (EU) would have on sovereign countries. The conclusions obtained by several researchers in this topic by studying this in countries like Germany, France, Spain, and the United Kingdom, such as the cases of Goetz (1995), Ladrech (1994), Bürzel (1999), Rometsch & Wessels (1996), Schmidt (1996, 1999, 2002, 2004), Falkner (2000) and Riise et al. (2001), even in the period when the Euro was not yet a reality, have shown that, to a greater or lesser degree, depending on whether national structures before entering the European Union (EU) tended to have more centralized decisions or more decentralized, had been affected by the entry into the EU, in what is described as the "Europeanization" process that, according to Schmidt (2002, pp.894), can be described like "the impact of European policies on national policies, practices, and politics (…). These include the constraints imposed by EU decisions in any given policy area".

These new rules approved in 1992 have increased Europeanization and placed restrictions on the traditional measures adopted in many of these countries by the respective member states, enhanced by the loss of monetary sovereignty (the European Central Bank was created to manage the monetary policy in Eurozone) what may impact on the traditional policies that were adopted by the political formations that govern the country - one of the hypotheses being tested in this work is if the Euro has any impact in the internal politics followed by different parties.

The objective of this work will not be to quantify the impact of the Euro on the European financial markets. This work has already been carried out by many authors, with

particular emphasis on the time when the Euro currency was introduced in several countries of the European Union (EU), in 2002. Examples of these analyzes are the articles by Galati & Tsatsaronis (2002), Goldberg et al. (2002), Gaspar et al. (2001), Hau et al. (2003), Detken & Hartmann (2000), Danthine et al. (2000), Pagano & Von Thadden (2004), Baele et al. (2004) and Hartmann et al. (2000), where various aspects of the implementation of the Euro as a single currency are discussed and analyzed, such as the impact of transactions at European level, the impact of the withdrawal of risks such as the exchange rate, purchase, and sale of assets between countries, the EONIA rates, among other variables. In addition to this topic having been studied extensively in this period, data on the evolution of the situation is regularly provided by the European Central Bank and, also, some recent studies look at evolution over time as is the case of the study by Miccosi (2015), Wyplosz (2013), Arrata et al. (2020), Efstathiou & Papadia (2018), Howarth & Quaglia (2020), Altavilla & Giannone (2017) and Koijen et al. (2016, 2017), where the policies implemented by the European Central Bank (ECB) and the evolution of several indicators are continuously analyzed. These most recent articles analyze, for example, the 2008 financial crisis that had attacked Europe, with a huge impact on the policies followed by the European authorities and on the spreads - differential between countries on the periphery of Europe (Portugal, Spain, Italy, Greece and Ireland) compared to Germany - paid for the 10-year public debt together with the problems of low inflation, which led the European Central Bank to create unconventional measures to fight against this problem as the historic fall in interest rates to negative values and, looking at the ineffectiveness of the measures taken, the creation of the Quantitative Easing, among other instruments, as well as the evolution of European integration in terms of buying and selling assets, foreign investment between European Union countries, the integration of financial markets at European level, the Banking Union decided in 2012 and more recently finalized, the analysis of the importance of the Euro in the market international and other variables under analysis. All this information taken here is relevant and should be considered because it will allow us to understand, in a clearer way, the results that will be obtained after studying the variables in Chapter 4. However, one of the main objectives will be to understand whether the Euro, considering all these factors that have happened at the European level since its introduction, ended up having an impact on the domestic policies carried out by each of the political parties (either left-wing or right-wing) that were in government during this period.

3. A brief political history of Portugal, Spain, France, and Italy

After the literature review that has just been made, in this chapter 3, we will review some of the historical facts of each of the countries that will be under analysis, referring to issues such as the duration of governments that follow a certain political ideology, the electoral system in law of each country, the moment of adhesion to the different European institutions, the elections that took place in these countries, as well as other information that will be relevant throughout the work. In appendices 9 to 13, there will be the most relevant information regarding the elections that took place for Portugal (appendix 9), Spain (appendix 10), France (appendix 11 and 12), and Italy (appendix 13).

3.1.   Political history of Portugal

In any democracy, voters are called to the polls within a certain time previously defined in the national Constitution. In the case that the legislature will be concluded, the electors are called with a certain periodicity previously provided in the Constitution, but, sometimes, voters are called to the polls earlier when governments cease to have the confidence of parliament and end up resigning or being fired from office, exposing themselves to electoral suffrage.

Portugal is a country with centuries of history, but which only started to have a democratic regime after 25th April 1974, with the "Revolução dos Cravos", which led to the fall of the Estado Novo government and its leader Marcelo Caetano and which paved the way that Portugal became a democratic regime. Having joined the European Union on 1st January 1986 together with Spain, becoming the eleventh and twelfth countries to belong to, at the time designated Economic and European Community (EEC), and being one of the founding members of the Euro in 1st January 2002, it is a semi-presidential regime where the President of the Republic is elected in the first round if he has more than half of the total votes, otherwise, there will be a second round with the two most voted candidates in the first round were the one with have the most votes will be elected the next president of Portugal, like said the article 126th of the Portuguese Constitution. Since 1974 Portugal has had only five presidents of the Republic, all of whom have re-applied for a second term (as allowed by the article 128th of the Portuguese Constitution, the maximum term for a President of the Republic is two) and have been re-elected. The five presidents of the Republic were, in

chronological order, Ramalho Eanes (1976-1986), Mário Soares (1986-1996), Jorge Sampaio (1996-2006), Cavaco Silva (2006-2016) and Marcelo Rebelo de Sousa (2016-).

In turn, the Assembly of the Republic is elected through direct elections according to D'Hondt's method. According to the Portuguese Constitution, in the article 148th a minimum of one hundred and eighty (180) and a maximum of two hundred and thirty deputies (230), the current number of deputies in the Assembly of the Republic, are elected through closed lists and where, on the ballot paper, citizens choose the political party they want to win – according to the article 151st, only political party or coalitions can present candidates to the Assembly of the Republic. The legislative elections take place every four years (or less, if the government is dismissed through a motion of censure if it resigns or is dismissed by the President of the Republic) and whence the prime minister who obtains the confidence of the majority of Parliament is able, constitutionally, to lead the destinies of Portugal.

Moving to a more precise analysis of the electoral results and of the governments that left the legislative elections, is possible to conclude that during the period of study (1993-2019) Portugal has six left-wing governments (elected in 1995, 1999, 2005, 2009, 2015 and 2019) and three right-wing governments (elected in 1991, 2002, 2011). Despite Portugal adopt a proportional electoral system that does not tend to favor the creation of absolute majorities, Portugal had three absolute majorities (between 1987 and 1995, where the prime minister at the time, Aníbal Cavaco Silva, also obtained the majority of votes and in 2005, where José Sócrates had a majority of deputies in the Parliament) and another government was a single one deputy to obtain an absolute majority (the government of António Guterres, in 1999, which obtained 115 deputies when, in Portugal, 116 are required to obtain an absolute majority). In the remaining cases, a coalition government was formed (occurred in 2002 and 2011 where PSD and CDS joined forces to form a center-right coalition government) or the creation of specific agreements, usually with minority governments of the PS, either with left-wing parties (since 2015), with some deputies for certain occasions (as occurred between 1995 and 2002) or with the largest opposition party, the PSD, between 2009 and 2011, a period of enormous crisis and financial instability at national and worldwide level. When we look at the period in which each of the political ideologies was in government, we can conclude that in the thirty-two years of the study, fifteen of them we have right-wing governments and in the other seventeen, we have left-wing governments, which demonstrates here the existence of a clear balance in this matter. However, and perhaps

justified by the fact that left-wing governments tend not to form majority governments, unlike what happens with right-wing governments, on two of the six occasions that a left-wing government was managing the destinations of its country - not forgetting that they are the party currently in power, and whose last term in which they were elected has not yet ended and it is not known whether there will be conditions to be able to govern the destinies of the country until 2023 without elections - did not they managed to reach the end of their mandate (in the mandates started in 1999 and 2009) whereas with right-wing governments this situation only happened once (in the mandate started in 2002).

3.2. Political history of Spain

Going to the East, we have the only country that shares a land border with Portugal. Spain was a dictatorship until 1976 when Francisco Franco passed away and governance passed to Juan Carlos I, who opened the country to democracy and established the present political regime – this decision made Spain have a political regime similar to what occurred in the other countries of Western Europe. Like Portugal, it also joined the European Union on 1st January 1986 (at that time, still called the European Economic Community) and was also one of the founding members of the single Euro currency in 2002.

The political organization in Spain is a constitutional monarchy. For that fact, it has a King (currently King Philip VI of Spain) who exercises these functions in a hereditary way and has two chambers with governmental functions: the so-called Chamber of Deputies and the Senate. The 2 Chambers (commonly known as Upper Chamber and Lower Chamber) are elected every 4 years unless the government itself resigns because it is unable to govern the country (unlike happens in Portugal, the King does not have powers to dismiss a prime minister and, in the case of a motion of censure, it is necessary to present an alternative of government to the current one, which is usually known as "constructive" motion of censure) or do not have the necessary support to proceed with its policies that it considers being necessary for the country at that time of governance.

In turn, the Chamber of Deputies is elected through direct elections according to D'Hondt's method – a proportional method, even though according to studies there is a greater difference between the electoral results and the effective number of seats in parliament compared to other countries with the D'Hondt method according to the study by Gallagher M. & Mitchell P. (2005) and Montero J. R. & Riera P. (2009), using the Gallagher Index. Here, three hundred fifty (350) deputies - having been decided based on one deputy

per million inhabitants (although the article 68th of Spanish Constitution between three hundred and four hundred deputies) are elected through closed lists and where, on the ballot paper, citizens can choose the political party they want to elect. In addition, each of the fifty-two electoral districts is entitled to the election of at least two deputies, the rest of them (246) are being defined according to the population of each circumscription.

For the Senate, the Upper Chamber is made up of two hundred sixty-four (264) senators, of whom two hundred and eight (208) are directly elected (four senators for each of the fifty-two circumscriptions) and the other fifty-six (56) are indirectly elected by each of the seventeen autonomous regions that are part of the Spanish territorial system, according to article 69th of the Spanish Constitution.

Moving to a more precise analysis of the electoral results and of the governments that left the legislative elections, is possible to conclude that between 1988 and 2019 Spain has seven left-wing governments (elected in 1986, 1989, 1993, 2004, 2008, 2018, and 2019) and four right-wing governments (elected in 1996, 2000, 2011 and 2016). It is important to point out that there were two governments that, despite having won the elections, were unable to have the necessary votes to form a government elected by the Parliament (in 2015 and 2019) and, consequently, after six months, according to the Spanish law, take place new elections were, in both cases, they confirmed the results obtained previously, with the same party winning the election, in this case, a right-wing government in 2015 and a left-wing government in 2019. Like happened with Portugal, Spain has adopted a proportional electoral system that does not tend to favor the creation of absolute majorities (even considering, as stated above, that the differences between the percentage of votes and the percentage of seats obtained in Parliament tend to be greater than in other countries with a proportional system). Despite that, Spain had three absolute majorities (between 1986 and 1989, with a left-wing government – led by Felipe González - and between 2000 and 2004 and afterward between 2011 and 2015 with a right-wing government – led, respectively, by José Maria Aznar and Mariano Rajoy), and in 1989 the left-wing government, led by Felipe González, was only one vote away from obtaining an absolute majority.

Looking at the time that each of the ideologies had in power, we can conclude that in the thirty-two years of the study, fifteen of them were right-wing governments and the other seventeen were left-wing governments, which demonstrates here the existence of a clear balance in this area. Usually, governments reached almost the end of their legislature, in some cases, elections were only brought forward a few weeks or months (as happened in

the elections of 1989, 1993, and 2011), while others would be brought forward because it was not possible to guarantee their governability (in 1996 and 2019). Four governments managed to reach the end of their mandate (this happened in the elections of 1996, 2000, 2004, and 2011, three of which were right-wing governments). In turn, two of the governments would not be able to be elected by Parliament after they won the elections (in 2015 and 2019) and, as mentioned above, there would be a change of government in 2018 due to a successful motion of censure.

3.3. Political history of France

Now, looking at the country that shares a land border with Spain, which is France, it is a country with a long history and that has had a regime considered democratic throughout its territory since the end of the Second World War in 1945. He was a member founder of the European Economic Community (EEC), established by the Treaty of Rome on 1st January 1958, and was one of the founders of the Euro currency in 2002.

France has a special electoral system because is not proportional, contrary to what happens in many European countries. One of the most important moments in French political life is the election of the President of the Republic because, according to the article 8th and 12th of the French Constitution, he elects the Prime Minister and has the power to dissolve the National Assembly, in addition to having functions shared with the Prime Minister by he elected, the one who obtains more than 50% of the votes in the first round will be elected, by direct and universal suffrage, or, in the case of neither candidate having more than 50% of the votes, the two most voted will pass in the second round and whoever obtains the majority of votes shall be elected (according to the article 7th of the French Constitution). In this part, the French electoral system is the same as many other countries around the world, as in the case of Portugal previously mentioned.

The novelty lies in the election of the National Assembly, which, just as in the election for the President of the Republic, is known as an example of a two-round system (Sisk, 2017), except when a candidate manages to obtain an absolute majority in the first round. If this does not happen, all political parties that obtain a vote greater than or equal to 12,5% in the first round of elections will pass to the second round, with a relative majority being enough to be elected in that single-member constituency. According to the article 24th of the French Constitution, the number of deputies must not be higher than five hundred seventy-seven (that is the current number of deputies) and, for the Senate, that is elected indirectly, the

number of senators must not be higher than three hundred and forty-eight (348).

Looking at the electoral results and the governments that resulted from legislative elections, is possible to observe that during the period of this study (1988-2019) France have three left-wing parliaments (elected in 1988, 1997, and 2012), four right-wing parliaments (elected in 1986, 1993, 2002 and 2007) and one center parliament (elected in 2017). Because France is a presidential regime, it is important to look at the presidential elections, because the president has relevant power in the country's destination (contrary to what happens in Portugal, for example, which is a semi-presidential country and where the role of the president is less relevant). Here, France has three left-wing presidents and governments (elected in 1981, 1988, and 2012), three right-wing presidents and governments (elected in 1995, 2002, and 2007), and one center president and government (in 2017, the liberal Emmanuel Macron). Since 1981, only five presidents led France in this period, starting with François Mitterrand (1981 to 1995), Jacques Chirac (1995 to 2007), Nicolas Sarkozy (2007 to 2012), François Hollande (2012 to 2017), and Emmanuel Macron (2017 -).

In a presidential election, the president was elected with the majority of votes, like happened in many other countries, where if none of the candidates obtain a majority, there is a second round with the two most voted candidates and where here the most voted president will have the most votes and will be elected president (according to the article 6th of the French Constitution). In the parliament election, because follows a plurality system, and like I had explained before about the French electoral system, tends to create majorities when we look at the results of the elections, we can see that all elected parliaments had an absolute majority of deputies: even in the case where the center-right or center-left party, they couldn't get enough votes on my own to have an absolute majority, there is a tendency for the right-most parties to support right-wing governments (led in France by the UMP / LR / RCR) and the left-most parties to support left-wing governments (led in France by the PS), which has been the process interrupted by the triumphant appearance of En Marche!, a liberal center party that managed to win the parliamentary elections in 2017 five weeks after Emmanuel Macron being elected President.

Looking at the time that each of the ideologies had in power, we can conclude that in the thirty-two years of the study, seventeen of them were presidents with right-wing ideology (between 1995 and 2012), in twelve years the elected president was left-wing ideology (between 1988 and 1995 and between 2012 and 2017), and in the last third years, the elected president was a liberal that, for the effects of the study, will be considered a center

ideology. All presidents fulfilled their mandate to the end, with some getting re-elected (like François Mitterrand in 1988 and Jacques Chirac in 2002) and others did not, or because they lost re-election (Nicolas Sarkozy, in 2012) or because they did not even try to run for a second term as happened with François Hollande in 2017, because his popularity is very low at that time and was no chance to have a reasonable result in the following election.

3.4. Political History of Italy

The last country to be studied is Italy. Like France, has had a democratic regime, in this case, a democratic Republic since 1946 and was one of the founding elements of the European Economic Community (EEC), with the Treaty of Rome in 1958 and was also one of the founders of the single Euro currency.

Italy has seen numerous changes in this period in terms of electoral systems. However, and before analyzing each one, it is relevant to look at the Italian Constitution and mention what cannot be changed constitutionally. According to the Constitution, the number of deputies is six hundred and thirty (630), twelve of them elected overseas, and the division of seats among the electoral districts by distributing them proportionally to the population in every electoral district (article 56th) whereas in the Senate, is elected three hundred and fifteen (315), divided the seats on the same way happened with the deputies and only can vote people with the age of twenty-five (article 57th and 58th). Both elections should occur every five years (article 60th) unless the term ends early for reasons of ungovernability.

 Looking at the electoral system, and contrary to what happened in the other countries previously referred to (that only have one electoral system), Italy suffered three electoral reforms since 1993. Donovan (1995) and Chiaramonte & D'Alimonte (2018) referred that, for other reasons, the electoral system that prevailed in Italy between 1945 and 1993 that consisted of a proportional system for the two chambers (the Imperiali quota in the Chamber of Deputies and the D'Hondt method for the Senate) and that ended up collapsing due to the party fragmentation that occurred in Italy in the early 90s, together with some political events and the problems that stemmed from the existence of this situation. After this situation, Italy proceeds an electoral reform that led them to adopt the Mixed-Member Majoritarian (MMM) that, according to Baldini (2011) and Passarelli (2018), 475 of the 630 seats (75%) would be elected in single-member constituencies using a plurality system, or First-Past-the-Post (FPTP), where the candidate with the highest vote would win

the seat in that constituency, even if he had less than 50% of the vote and the rest 155 of the 630 seats (25%) would be allocated proportionally using the L-Hare method, need also to have more than 4% in the vote at a national level. After this, a new reform comes in 2005. According to Passarelli (2018, pp.860), "the law stipulated a proportional system with closed lists that allocates a sizable seat "majority bonus"—guaranteeing 55 percent of seats". The new law introduced a defined rule for pre-electoral coalitions, obligating lists to adhere formally to them by specifying the name of the political leader of the coalition from the outset". In the Senate, this "majority bonus" is allocated by region and not at a national level making the result more unpredictable and being able to make the majority in the Chamber of Deputies and the Senate belong to different political blocks. However, in a few years, in 2017, a new electoral reform was made. The electoral system that was, nowadays, according to data available on "Camera del deputati" (2017) on Dossier n.230 and, also, in the paper published by D'Alimonte (2015) and Chiaramonte & D'Alimonte (2018), Italy have returned to the Mixed-Member Majoritarian system (MMM) but, in this time, 398 of the 630 deputies for the Chamber of Deputies (of which 12 of them are elected abroad) are elected using a proportional representation (PR) and the rest of deputies (232) are elected using a plurality system in single-member constituencies, more identified with the First-Past-the-Post (FPTP) method, as explained above. For the Senate, 199 senators are elected using a proportional representation (of which 6 of them are elected abroad) whereas 116 senators are elected with the First-Past-the-Post (FPTP) method, as happens in the Chamber of Deputies. In addition to this if any party gets more than 40% of the votes, will have 54% of the seats in the Chamber of Deputies but, if that 40% is not achieved, the seats are distributed proportionally.

Italy has always had a chaotic political and electoral system, something that also happened in the period 1993-2019. Italy, as always happened during their history, had several elections and governments during this period – governments that take months to be formed due to tough negotiations - and many prime ministers who, in some cases, lasted for weeks and, in other cases, independent people was chosen without connections to political parties that, at one time were supported by some political parties and, later, were supported by other political parties. Another example of this political, electoral, and social instability is the fact that Italy, since 1993, has already had four different electoral systems with different methods of counting seats in the Chamber of Deputies and the Senate, which is another symptom of the political instability in this country. Even in governments with a parliamentary majority

through agreements established after elections, changes of the prime minister are usual.

Moving to a more precise analysis of the electoral results and of the governments that left the legislative elections, in the nine elections that Italy have between 1993 and 2019, and considering the existence of four different electoral systems during this period, we have two elections that have been won by left-wing parties (the L'Ulivo in 1996 and 2006), three elections have been won by right-wing parties (the Forza Italia in 1994 and 2001 and The People of Freedom in 2008, all of them led by Silvio Berlusconi) and the last two elections have been won by a populist party called Movimiento 5 Stelle in 2013 and 2018. However, in Italy, it happens several times that the prime minister and the coalition that supports that prime minister do not include the winner of the elections. So, more important than that is to look at the prime ministers and their political orientation. And here, during the period of study (1993-2019) Italy have eight left-wing governments (one between 1992 and 1993, three between 1996 and 2001, one between 2006 and 2008, and three between 2013 and 2018), three right-wing governments (led by Silvio Berlusconi, between 1994 and January 1995, 2001 and 2006 and 2008 to 2011) and four independent governments (a year between 1993 and 1994 led by Carlo Ciampi, more less a year between 1995 and 1996 by Lamberto Dini, a year and a half between the end of 2011 and mid-2013 by Mario Monti and finally Giuseppe Conte that start your mandate in 1st June 2018 until now).

Looking at the time that each of the ideologies had in power, we can conclude that in the twenty-seven years of the study, nine of them were right-wing governments, in other thirteen years Italy has been led by a left-wing government and in the other five years, the government was led by an independent (the fact that the government leader is an independent does not mean that he did not have the support of the parties, not least because he had the necessary parliamentary support for his policies, but he is seen as someone from outside the parties, often referred to as "technocrats", which manages to gather support at times from right and left parties, the only way to sometimes unblock negotiations between parties when no agreement is reached for who should be the prime minister). The fact that Italy has had eleven prime ministers in twenty-two years, and that some of them have repeated the post of prime-minister on more than one occasion (like Berlusconi), is an example of the enormous instability and, as such, very few prime ministers who they started their term of office, they managed to stay for four years, let alone to be re-elected at the polls, which makes any continuity of policies a very delicate situation and have an impact on the political, economic and social problems that Italy currently presents.

4. Data and Methodology

Throughout this thesis, will be tested several hypotheses using time-series data for each one of the four countries that can be studied (Portugal, Spain, France, Italy) looking at the stock market performance (between January 1988 and December 2019 in the case of Spain and France and between January 1993 and December 2019 in the case of Portugal and Italy) and at the specific characteristics of each country, in terms of coalitions to form a government. In this case, for all the variables and regressions, quarter-to-quarter data will be considered.

Before discussing the variables that will be used in the model, we should discuss the differences between center-left governments and center-right governments. Historically, there was a difference between the most left-wing parties, which supported expansionist and Keynesianism policies, caring more about unemployment than inflation, and between more right-wing parties, which support more market-friendly policies, with less regulation and level of taxes, from what is commonly called neoliberalism, caring more about inflation than unemployment. This difference was particularly noticeable in the 1970s and 1980s, when oil shocks caused problems in European economies with different responses to the crisis for the center-left and center-right parties, with better macroeconomic results for center-right politics. In this thesis, one of the things that will be studied is if the differences in policies followed by the center-left and center-right parties continue to be relevant today.

Moving on to the variables under study in the regression, as was done in the study by Vuchelen (2003), which is the reference for this scientific study which have the intention to reply to the work done by other countries, some explanatory variables must be considered to do this analysis. Starting with the dependent variable that will be used throughout this study, this will be the percentage change in the reference index (INSM$_t$) of the country under study (is the dependent variable used by any author when studying the stock market of a country or a group of countries, as Hudson et al. (1998) for the case of United Kingdom and Furió & Pardo (2012) for the case of Spain in a daily basis or Kim and Mei (1994) for the case of Hong Kong in a quarterly basis). All the other variables that will be presented below will help to explain the models that will be presented in the following Chapter. Being the information about the Index of each country be collected on Thomson Reuters Datastream,

the quarterly variation in that Index was calculated by dividing the value of the index in the current period with the value of the index in the previous period and subtracting it by one, obtaining the percentage of the variation that occurred in the Index in a certain quarter. Before passing on the independent variables, will be presented in Table 1 the descriptive statistics of returns of the five stock markets under study (the PSI-20, the IBEX-35, the CAC-40, the FTSE-MIB, and the S&P 500) and in Table 2 the results of the ADF Statistic Test, which shows that the variables under study are stationary, since they are statistically significant at 1% level.

Table 1 - Descriptive Statistics

	Portuguese Index (PSI-20)	Spanish Index (IBEX-35)	French Index (CAC-40)	Italian Index (FTSE-MIB)	S&P 500
Mean (%)	0.012	0.017	0.019	0.014	0.023
Median (%)	0.011	0.012	0.028	0.007	0.029
Maximum	0.458	0.407	0.298	0.416	0.209
Minimum	-0.257	-0.281	-0.287	-0.265	-0.226
St. Deviation (%)	0.117	0.114	0.102	0.112	0.074
Skewness	0.274	0.201	-0.334	0.202	-0.675
Kurtosis	4.015	3.636	4.475	4.032	3.965
Bera-Jarque (p-value)	5.984 (0.050)	3.015 (0.221)	13.971 (0.0009)	5.527 (0.063)	14.681 (0.0006)

Table 2 - ADF Statistic Test

	PSI-20	IBEX-35	CAC-40	MTSE-FIB	S&P 500
ADF Statistic Test	-7.00*** (0.0000)	-8.41*** (0.0000)	-7.91*** (0.0000)	-7.16*** (0.0000)	-7.52*** (0.0000)

The t-ratios are in parenthesis and the *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

Moving forward to independent variables, we start to explain the percentage change in the S&P 500 Index. It is usual when looking at the return of a certain stock index, to use another stock index that is considered referential, as occurs, for example, in the study of Furió & Pardo (2012). Calculated in the same way that was each one of the national indexes, and the data also be collected on Thomson Reuters Datastream, this index is considered one of the reference financial markets around the world, being one of the most followed equity indexes, which can summarize the movements in global financial markets. The comparison allows us to understand which returns can be considered normal and those which are "abnormal", and the special analysis will have to focus on these seconds and understand the

reasons why there was an "abnormal" variation from that of the reference market, on this case, the S&P 500 Index (which will be designated in the regression IS&P) - it will be assumed that the S&P 500 Index reflects the expected normal movement of the market.

Another relevant indicator is to look at the changes in the bond interest rate (will be called IRt) in terms of basis points[1] (in this case, will be considered the long-term bond rate at 10 years period). The information about the 10-year interest rates was obtained on Thomson Reuters Datastream databases and, afterward, the quarterly variations both in the country under study and the difference between the country under study and the reference country (Germany) was carried out by me. Usually, when we look at the interest rate that the government finances over the long term, this is a clear reflection of the way the financial markets look at that country. An increase in the bond interest rate means that the market looks at the country with more doubts about the future ability to honor its previously made financial commitments, which may be due to the policies that are being adopted by that country, asymmetric negative shocks that may affect that country more than others or else, due to the situation of uncertainty that can be experienced in that country as to the result of the elections, to the formation of a coalition government, meaning exactly the opposite a decrease in the bond interest rate. However, again, and as with returns in the stock market, it is normal for there to be some fluctuations in terms of interest rates. The important thing, to understand how the country is being perceived in international markets, is to look at the interest rate of that country and compare it with a reference country (which will be Germany, as it is considered the reference country Euro area) and calculate the basis points, that is, the difference between the interest rate of the country being studied and the interest rate of the reference country (Germany) – the premia that were paid. Another indicator is the change in the dollar exchange rate, which will be discussed in the next paragraph.

The exchange rate, used by authors such as Vuchelen (2003) and Suriani (2015) et al. can be characterized by the amount of local currency needed to obtain another currency. Using the dollar exchange rate (DDOLt) variable with data collected on Thomson Reuters Datastream and considering the quarterly variations on them for the four countries under study that have your own currency until the end of 2001, when the Euro (€) appears, will be used the exchange rate between the own currency/Euro against the dollar. Any of the

---

[1] In comparison with the study of Vuchelen (2002), a slightly difference have been made. Instead of being considered just the change in the long-term interest rate, it will also be considered a reference country (which will be Germany), so, the value that are analyzed will be the premia.

currencies against the dollar operates at a free-floating rate without significant interventions of Central Banks to have a certain interest rate parity, fluctuating more less freely on the exchange market.

The next variable that will be used will be a Dummy, and in this case will be used after studying the information collected at the Ministry of Interior of each country about the electoral results of the different elections that have been made in the past and the political orientation of the government/coalition democratically elected to led the country, using that information in the regression to assess if there are significant differences between the governments. These variables are used by many authors to study the impact of different governments on financial markets, as done by authors like Riley & Luksetich (1980) or Santa-Clara & Valkanov (2003), just referring to two examples. Here, will be used Dummy variables with this notation: in part one of the following chapter, R_t for a right-wing government, L_t for a left-wing government, C_t for a centre government, I_t for a government of independents with party support outside the government in parliament[2], and, keeping the author's original notation, PUR_t when a "purple coalition" is formed in the case of Belgium, in the case when a coalition is formed and, in part two of the following chapter, RP_t for a right-wing government, LP_t for a left-wing government, CP_t for a center government, IP_t for a government of independents with party support outside the government in parliament[3] and, keeping the author's original notation, $PURP_t$ for "purple coalitions" in the case of Belgium, in the case when a certain government is leading the country.

On the other hand, and as in the study by Vuchelen (2003), an economic indicator is used[4]. As there is no data available for Portugal by the KBC Bank, it was necessary to find an alternative to predict what will happen in the following months and, in this scenario, the Composite Leading Indicator (CLI_t), carried out by OECD and whose data could be collected on the website and with recent studies by authors such as Andrea et al. (2017) in which they verify that they have a good predictive capacity, being, therefore, a natural option to substitute a variable for a similar one. The indicators that are used for this indicator are "the MEI database, which provides the main source for selected indicators, covers macroeconomic indicators for the following major subject areas: (1) GDP and its components and industrial production, (2) selected commodity output variables (crude steel,

---

[2] Note: not all dummy variables will be used for all countries
[3] Note: not all dummy variables will be used for all countries
[4] The economic indicator that was used in the Vuchelen (2003) study is the change in the business cycles index calculated by the KBC Bank

crude petroleum, etc.), (3) business and consumer tendency survey series, (4) selected manufacturing variables (deliveries, stocks, new orders, etc.), (5) Construction, (6) domestic trade, (7) labour market series, (8) consumer and producer prices, (9) money aggregates, (10) interest rates, (11) financial variables, (12) exchange rates, (13) international trade and (14) balance of payments data" (Gyomai & Guidetti, 2012, pp.5).

Following will be tested if the adhesion of Euro was statistically significant. Before 2002, each country had its own currency and where the banks of each country and, in part, the governments of those countries had the power of monetary policy they could use (for example, the devaluation of the national currency, to make it easier to export – if the currency was devaluated, is cheaper by a foreign country to buy national goods and, in consequence, they will buy higher quantities) whereas, afterward, management became integrated into the European Central Bank, which was fully independent of any of the European countries and institutions and with the sole objective of guaranteeing inflation close but slightly below 2% annually. In addition to this, Bartram & Karolyi (2006) found that the introduction of the Euro reduced the foreign exchange rate and the study of Bartram et al. (2007) found market dependence within the Euro area for some countries in the equity market, which could be an indicator of the impact that the Euro has, and where it will be studied if the impact persists over the time for stock market indexes. Other studies, such as Lindman et al. (2020) shown that Euro increased the financial market integration. Considering these impacts in certain areas, we will test the hypothesis of the Euro to be a statistically significant variable to explain the stock market returns. To test this hypothesis, a variable called EUR_t will be considered equal to 1 from the first quarter of 2002 onwards and equal to 0 before then.

Then, another Dummy variable will be used to look if when a country has elections in a certain quarter, in the same way, is used in Vuchelen (2003), the performance of the financial markets was significantly different from when there are no elections in that country - for this situation, a variable called ELEC will be used to test this hypothesis, with the information collected on the websites of the Ministry of Interior of each of the countries under study, being equal to 1 in the month when an election occurred and 0 otherwise. In this part, another variable will also be used, in this case, a Multiplicative Dummy (ELEC * Euro), to understand if the government in power have the power to influence the monetary policy in the electoral period even when it no longer had any influence on its Central Bank (since 2002, the European Central Bank is located in Frankfurt and is independent of national

governments, having the function of guaranteeing a level of inflation below but close to 2% annually in the medium-term).

Finally, a variable called cris_fin will be created to study the impact of the Financial Crisis on financial markets and see if it had a statistically significant impact to explain the behavior of the financial markets, and that has already been used in papers such as Nikkinen et al. (2012) and Lucktenberg & Vu (2015), in which they divided the period between the pre-crisis and the crisis to see if there were significant impacts. For this purpose, we will consider the financial crisis as the period between 2008 and 2013 (2008Q1 to 2013Q4), thus include the Global Financial Crisis (GFC) that had strong impacts worldwide and that started in the U.S. in the end of 2007 according to authors like Zhu et al. (2018), Calomiris et al. (2020), Liu et al. (2020) and Yang et al. (2020), and, later, the Debt European Sovereign Crisis (DESC), also European Financial Crisis (EFC), which not only cause that some countries have a lack of confidence of the financial markets in those countries' treasury bills, something that put under difficulties several European countries, also known as PIIGS (nomenclature for Portugal, Ireland, Italy, Greece and Spain), in being able to fulfill their obligations previously assumed in the past with international creditors, and which forced some of them to request international aid at institutions such as the International Monetary Fund (IMF), but which caused a recession at European level in response to the delicate situation in which Europe found itself at this time that just finished in the end of 2013, as used by authors like Calligaris et. al (2016) and Schivardi et al. (2017). So, for this purpose, will be considered the whole period between 2008 and 2013 for the GFC and EFC crisis. Finally, with a Multiplicative Dummy variable called cris_fin$_t$ * ELEC$_t$, we will try to understand if the elections that took place in the period of the financial crisis had a statistically significant impact on the performance of the financial markets in each of the countries under study.

In the next chapter, will be presented the results of three linear regressions in sub-point 5.1. and other three in the sub-point 5.2., being six regressions in total where several hypotheses would be tested, all of the results being presented in table format to make it easier to interpret and compare the results. However, and before doing this, is necessary to refer to the nomenclature that will be used throughout this document for all the regressions under study and explain what are each one of these equations that will be estimated.

So, the nomenclature will be the following: the INSM$_t$ represents the returns of the Stock Market of the country that has in study at the end of the quarter; the CLI$_t$ is the change in the composite leading indicator calculated by the OECD at the end of the quarter; the

DDOL$_t$ is the variation in the dollar exchange rate of the national currency at the end of the quarter; the IR$_t$ is the change in the long interest rate in terms of basis points at the end of the quarter; the IS&P$_t$ represents the returns of the Standard & Poors 500 Index at the end of the quarter; the ELEC$_t$ is a dummy variable equal to 1 in the quarter an election is called; EUR$_t$ is a dummy variable that is equal to 1 if the country has the Euro as their official currency and cris_fin$_t$ is a dummy variable that is equal to 1 in the period between 2008 and 2013; L$_t$ / LP$_t$ is a dummy variable equal to 1 when a left-wing government or coalition is formed / led the country's destinations, being R$_t$ / RP$_t$ a dummy variable equal to 1 when a right-wing government or coalition is formed / led the country's destinations; C$_t$ / CP$_t$ a dummy variable equal to 1 when a center-government or coalition is formed / led the country's destinations; I$_t$ / IP$_t$ a dummy variable equal to 1 when an independent government or coalition is formed / led the country's destinations and PUR$_t$ / PURP$_t$ a dummy variable equal to 1 when a "purple" coalition (left plus right without the centre party) is formed / led the country's destinations

Now, as a starting point, we will start to reproduce the regression that has been done by Vuchelen (2003) for Belgium in the four countries under study (Portugal, Spain, France, and Italy), only considering the difference that we made in the calculation of the variable IR$_t$, and the substitution of the KBC Bank Indicator for the Composite Leading Indicator (CLI$_t$), due to the limitations presented behind. So, the first regression is:

$$INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + ELEC_{t-1} + L_t + R_{t-1} + (I_t \ / \ C_t \ / \ PURP_t)$$

This will be the initial equation and, from here, we will add new variables that could be relevant to understanding the behavior of the model and to see if these new variables are statistically significant or not. In the following regression, we will proceed to a re-estimation of the model adding the variables related to the adhesion of the Euro. The entry into force of the Euro in 2002 meant the conclusion of the process started in the previous decade, with the Maastricht Treaty, of the creation of an Economic and Monetary Union which, according to authors such as Mankiw (2003) and Burda & Wyplosz (2013), consists of an agreement between a group of sovereign countries for the use of a common currency and a common monetary policy. For this, will be assumed EUR$_t$ = 1 from the first quarter of 2002 onwards and EUR$_t$ = 0 before 2002 and a multiplicative Dummy called Euro * Elections (EUR$_t$ * ELEC$_{t-1}$) that would assume the value 1 if elections took place in a certain quarter after 2002

and have the value of 0 if elections do not take place in that quarter or if they took place before 2002. So, the second regression will be the next:

$$INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + EUR_t + EUR_t * ELEC_{t-1} + ELEC_{t-1} + L_t + R_{t-1} + (I_t / C_t)$$

For the last equation in the first part, a new regression will be estimated where will be added the variables related to the financial crisis (will assume the value equal to $cris\_fin_t = 1$ from the first quarter of 2008 until the last quarter of 2013 and $cris\_fin_t = 0$ between the period before 2007 or after January 2014 and a multiplicative dummy called Financial Crisis * Elections ($cris\_fin_t * ELEC_{t-1}$) that will assume the value 1 if elections took place in a quarter between 2008 and 2013 and will assume a value of 0 if elections do not take place in that quarter between 2008 and 2013 or if they took place in any period outside the range between 2008 and 2013). Therefore, the estimated equation will be the following:

$$INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + EUR_t + EUR_t * ELEC_{t-1} + ELEC_{t-1} + cris\_fin_t + cris\_fin_t * ELEC_{t-1} + L_t + R_{t-1} + (I_t / C_t)$$

In the second part of Chapter 5, will be replicated the same structure from the first subpoint considering the same variables (with a difference in terms of political parties that will be explained) and we will add in the regressions the same new variables that were done before. For that, the political variables will be changed, now being considered all the period when a partisan was in government using the variables LP_t and RP_{t-1} for left-wing governments and right-wing governments, respectively, and a third political variable (be this $PURP_t$, IP_t, or CP_t for Belgium, Italy, and France, respectively) instead of L_t, R_{t-1}, and PUR_t, I_t or C_t, as it had been used in the three previous regressions. So, the first regression of the second part will be the following:

$$INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + ELEC_{t-1} + LP_t + RP_{t-1} + (IP_t / CP_t / PURP_t)$$

In turn, in the following regression, the variables related to the Euro will be added. Again, will be assumed $EUR_t = 1$ from the first quarter of 2002 onwards and $EUR_t = 0$

before 2002 and a multiplicative Dummy called Euro * Elections ($EUR_t * ELEC_{t-1}$) that would assume the value 1 if elections took place in a certain quarter after 2002 and have the value of 0 if elections do not take place in that quarter or if they took place before 2002. So, the regression will be the following:

$$INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + EUR_t + EUR_t * ELEC_{t-1} + ELEC_{t-1} + LP_t + RP_{t-1} + (IP_t / CP_t)$$

Finally, about the last regression that will be estimated in Chapter 5, the variables related to the Financial Crisis will be added. Again, the variables related to the financial crisis (will assume the value equal to $cris\_fin_t = 1$ from the first quarter of 2008 until the last quarter of 2013 and $cris\_fin_t = 0$ between the period before 2007 or after January 2014 and a multiplicative dummy called Financial Crisis * Elections ($cris\_fin_t * ELEC_{t-1}$) that will assume the value 1 if elections took place in a quarter between 2008 and 2013 and will assume a value of 0 if elections do not take place in that quarter between 2008 and 2013 or if they took place in any period outside the range between 2008 and 2013). Therefore, the last equation estimated will be the following:

$$INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + EUR_t + EUR_t * ELEC_{t-1} + ELEC_{t-1} + cris\_fin_t + cris\_fin_t * ELEC_{t-1} + LP_t + RP_{t-1} + (IP_t / CP_t)$$

In the next chapter, the results of the regressions indicated in this chapter will be presented and, on the other hand, they will also be analyzed and discussed, in order to understand which variables and characteristics of the variables help to explain the performance of stock indexes and try to understand if the new variables introduced in the model are good or not to explain the variations in returns in financial markets for each one of the countries under study.

5. Results of the empirical study

In this chapter, we will present the results obtained in the regressions for all the countries under study (Portugal, Spain, France, and Italy), using tables to compare the results obtained between countries and explain which are the objectives of introducing the new variables that will be carried out throughout the chapter. In sub-point 5.1., the presentation of the results will be started, considering the moment when a government wins the elections and comes to power whereas in sub-point 5.2., will be presented the results when we consider all the periods that a government leads the country's destinations. In addition to the presentation of results, the most important things of the results obtained will be mentioned and discussed here, with a more global assessment being left to Chapter 7, the conclusion.

5.1.   Results of Regressions: Coalition elected

[5.1] $INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + ELEC_{t-1} + L_t + R_{t-1} + (I_t / C_t / PURP_t)$

Table 3 – Regression Results basis when a coalition is formed

	Reference Study (Belgium)	Portugal	Spain	France	Italy
c value	-0.08 (-0.13)	-0.95 (-1.03)	-0.52 (-0.77)	-0.43 (-0.82)	-0.60 (-0.80)
Dollar exchange rate (DDOL_t)	0.54 (2.11)	0.32* (1.87)	0.27** (2.41)	0.37*** (4.08)	0.26* (1.81)
% change in the reference market (IS&P_t)	0.61 (8.37)	0.78*** (6.33)	0.98*** (11.14)	0.98*** (14.10)	0.87*** (8.60)
Long-term interest rate (IR_t)	-4.39 (-3.32)	-0.028** (-2.37)	-0.07*** (-5.23)	-0.04** (-2.00)	-0.056*** (-3.97)
Composite Leading Indicator (CLI_t)[5]	1.39 (2.81)	2.76*** (3.09)	1.06 (1.20)	2.72*** (3.60)	3.44*** (3.07)
Elections (ELEC_{t-1})	6.67 (2.77)	-0.59 (-0.15)	-3.78 (-1.18)	1.37 (0.43)	-2.29 (-0.62)
Left (L_t)	-4.67 (-2.39)	1.73 (0.47)	-2.06 (-0.72)	7.26* (1.88)	-2.89 (-0.64)
Right (R_{t-1})	8.07 (2.80)	1.83 (0.24)	-1.52 (-0.36)	-9.07** (-2.05)	-0.51 (-0.09)
Purple (PURP_t)	-15.77 (-2.35)				
Center (C_t)				-2.11 (-0.39)	
Independent (I_t)					-0.20 (-0.05)
R²	0.57	0.50	0.67	0.75	0.64
R² adjusted	0.53	0.47	0.65	0.73	0.61
White Test (Heteroscedasticity)		0.7024	0.8728	0.1641	0.8903
Breusch-Godfrey Test (Autocorrelation)		0.6682	0.1609	0.3417	0.7285
Durbin-Watson (DW)	2.00	2.20	2.29	2.25	2.24
n	108	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the election of a government (L, R, I, C, or PUR) are 1 when the government is elected. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

---

[5] In the case of Belgium, the economic variable used are not the Composite Leading Indicator (CLI) but is used the change in the business cycle index calculated by the KBC bank

As expected and previously verified in studies like Vuchelen (2003), we can conclude that the S&P 500 stock market, one of the reference markets worldwide has a huge impact on any of the stock markets that we can consider - an event that can be explained by the globalization of financial markets, where an event occurred anywhere affect all the stock market indexes (Helleiner, 1995; Bordo, 2010; Garas et al., 2010). The other variables that explain the changes that occurred in any one of the four countries, just capture deviations from the influence of the S&P 500. In this case, another relevant variable is the Composite Leading Indicator (for Portugal, France, and Italy) – a higher Composite Leading Indicator (CLI_t) have a positive impact on the stock market, due to the future expectations for the economy becomes more positive, and this increases confidence in the investors in financial markets. We have also the long-term interest rate (IR_t), when a higher bond long exchange rate (at 10 years) means that the country has to spend more for the loans it asks for abroad, and that gives a negative signal to the markets, not only because it means that this country will have difficulties to accomplish its financial commitments but also a higher amount of interest will create more difficulties to honor these compromises. Finally, we should look at the question of the dollar exchange rate ($DDOL_t$), which was a statistically significant variable (at least at 10%) for all countries. So, a higher dollar exchange rate has a positive impact on the stock market index because of the effects they have on the domestic economy, and in the end, these effects are transmitted to the financial markets.

If we look at the political variables, we see that, in itself, none of the variables are significant excluding France, when an election of a left-wing or right-wing government is statistically significant at 10% and 5%, respectively. In this case, was also statistically different the election of a left-wing government, a right-wing government, or a center-government[6].

On the other hand, we can verify that, for all countries in the study, and contrary to indicated in the study by Alesina (1997, pp.149), where he wrote that "is consistent with a reasonable interval between a change in regime (in quarter t) and a change in policy (in period t + 1)" and Vuchelen (2003), when this situation reported by Alesina was confirmed in the results obtained, the variable elections ($ELEC_t$), here, is not statistically significant.

Now, will be presented the results of the regression [5.2]:

---

[6] The F-statistic assumes the value of 3.914 and the probability that will be irrelevant the entrance of a new government independently of their political orientation assumes a p-value of 0.0226.

[5.2] $INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + EUR_t + EUR_t * ELEC_{t-1} + ELEC_{t-1} + L_t + R_{t-1} + (I_t / C_t)$

Table 4 - Regression results with variable Euro

	Portugal	Spain	France	Italy
c value	-0.20	-0.48	-0.035	0.58
	(-0.13)	(-0.48)	(-0.05)	(0.43)
Dollar exchange rate (DDOLt)	0.30*	0.27**	0.37***	0.21
	(1.72)	(2.37)	(3.97)	(1.40)
% change in the reference market (IS&Pt)	0.77***	0.98***	0.97***	0.86***
	(6.26)	(10.85)	(13.92)	(8.49)
Long-term interest rate (IRt)	-0.025**	-0.07***	-0.04*	-0.052***
	(-2.09)	(-5.14)	(-1.88)	(-3.67)
Composite Leading Indicator (CLIt)	2.88***	1.09	2.75***	3.45***
	(3.22)	(1.21)	(3.60)	(3.05)
Elections (ELECt-1)	6.11	-4.46	1.52	-5.16
	(0.98)	(-1.05)	(0.34)	(-0.86)
Euro (EURt)	-1.07	-0.06	-0.68	-1.67
	(-0.59)	(-0.05)	(-0.68)	(-1.05)
Elections * Euro (EURt * ELECt-1)	-11.30	1.14	-0.036	4.13
	(-1.41)	(0.24)	(-0.01)	(0.64)
Left (Lt)	1.82	-2.05	7.26*	-2.88
	(0.50)	(-0.70)	(1.86)	(-0.69)
Right (Rt-1)	6.52	-1.51	-9.07**	0.28
	(0.81)	(-0.35)	(-2.05)	(0.05)
Center (Ct)			-1.79	
			(-0.33)	
Independent (It)				-0.71
				(-0.19)
R²	0.52	0.67	0.75	0.64
R² adjusted	0.47	0.64	0.72	0.60
White Test (Heteroscedasticity)	0.4083	0.9489	0.0584	0.8983
Breusch-Godfrey Test (Autocorrelation)	0.5264	0.1619	0.3233	0.6609
Durbin-Watson (DW)	2.23	2.29	2.26	2.26
n	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the election of a government (L, R, I, or C) are 1 when the government is elected. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

As we can see, the new variables introduced in the model to study the Euro were not statistically significant. On one hand, these results can be considered until certain point surprising, if we think that countries such as Portugal and Spain had high levels of inflation in the years before the appearance of the Euro, and also if we think that the currencies of

Portugal (Escudo), Spain (Peseta) and Italy (Lira), mainly, had a clear trend depreciation against the dollar in the 90s that ceased to occur since the Euro was introduced in 2002. If, in addition to this, we consider the total loss of control of monetary policy by the member states which is now exclusively lead by the European Central Bank (ECB), it could be expected that there would be significant structural changes with the adhesion to the Euro, but the truth is that according to the results of the regression presented above this does not happen or, at least, would not have a statistically significant impact in the stock market of each one of these countries.

On the other hand, we can also think about why Euro does not have a statistically significant impact. During this period, situations of crisis and several difficulties have already occurred in Europe, which probably caused the Euro not to significantly improve the quality of life and performance in the financial markets (our explained variable) that was expected at the moment of their creation. Even if we consider the fact that the currency is now under the control of the European Central Bank and not of the national Central Banks as it used to be, the truth is that, in the past, and according to the legislation in force in many of the European countries, central banks were already effectively independent from national governments. So, the change was not so huge as if the government directly monetize the public debt contracted with the Central Bank of its country. Another possibility, that will be studied afterward in Chapter 6, in sub-point 6.2., is to look at the hypothesis that it should be considered the entire period beginning in the convergence period, starting in 1994 instead of 2002.

So, and now adding the variables related to the financial crisis (cris_fin$_t$ and ELEC$_t$ * cris_fin$_t$), the results that we can obtain when we run the regression [5.3] are the ones presented in the following page:

[5.3] $INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + EUR_t + EUR_t * ELEC_{t-1} + ELEC_{t-1}$
$+ cris\_fin_t + cris\_fin_t * ELEC_{t-1} + L_t + R_{t-1} + (I_t / C_t)$

Table 5 - Regression results with the Financial Crisis

	Portugal	Spain	France	Italy
c value	-0.22	-0.54	-0.06	0.57
	(-0.14)	(-0.54)	(-0.07)	(0.42)
Dollar exchange rate (DDOL$_t$)	0.33*	0.27**	0.37***	0.22
	(1.82)	(2.32)	(4.01)	(1.44)
% change in the reference market (IS&P$_t$)	0.78***	1.00***	0.98***	0.86***
	(6.27)	(11.00)	(13.91)	(8.49)
Long-term interest rate (IR$_t$)	-0.023*	-0.07***	-0.04*	-0.052***
	(-1.94)	(-5.21)	(-1.82)	(-3.56)
Composite Leading Indicator (CLI$_t$)	2.88***	0.70	2.60***	3.35***
	(3.19)	(0.75)	(3.35)	(2.94)
Elections (ELEC$_{t-1}$)	6.10	-4.55	1.96	-6.06
	(0.98)	(-1.07)	(0.42)	(-0.97)
Euro (EUR$_t$)	-0.44	0.02	0.04	-1.03
	(-0.22)	(0.15)	(0.03)	(-0.60)
Elections * Euro (ELEC$_{t-1}$ * EUR$_t$)	-10.19	3.97	-0.19	6.17
	(-1.20)	(0.78)	(-0.04)	(0.73)
Left (L$_t$)	1.68	-2.31	7.96**	-2.63
	(0.46)	(-0.79)	(2.03)	(-0.62)
Right (R$_{t-1}$)	7.62	-1.57	-9.99*	1.72
	(0.92)	(-0.36)	(-1.97)	(0.26)
Center (C$_t$)			-2.39	
			(-0.44)	
Independent (I$_t$)				-0.88
				(-0.22)
Financial Crisis (cris_fin$_t$)	-1.83	-0.55	-2.07	-1.99
	(-0.82)	(-0.31)	(-1.48)	(-1.06)
Financial Crisis * Elections (cris_fin$_t$ * ELEC$_{t-1}$)	-3.63	-9.43	-0.16	-2.32
	(-0.43)	(-1.50)	(-0.02)	(-0.27)
R²	0.52	0.68	0.75	0.65
R² adjusted	0.47	0.65	0.73	0.60
White Test (Heteroscedasticity)	0.6191	0.9553	0.1929	0.9770
Breusch-Godfrey Test (Autocorrelation)	0.5291	0.1995	0.3366	0.5447
Durbin-Watson (DW)	2.24	2.26	2.29	2.27
n	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the election of a government (L, R, I, or C) are 1 when the government is elected. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

We observe that, in this model, the addition of the new variables is not statistically significant for the estimated model here. Some explanations can be given to justify the negative trend of the financial crisis on stock markets (the variable cris_fint assumes negative values for the four countries under analysis, as it could be explained considering that crisis has a negative impact on the financial markets) but are not statistically significant at any level.

The explanation for these results may be slightly different. On one hand, we have other economic and financial variables considered in the model, that may incorporate some of the effects of the financial crisis (like the Composite Leading Indicator). On the other hand, we are studying economies in developed countries that, in this period, were integrated into a strong European community and were supported by the European Central Bank (ECB), which helped to mitigate the impact this crisis had on the financial markets giving the signal that, even in a difficult period, everything would be done for the countries that are in trouble did not go into default, which calmed the concerns of the investors.

Before moving on to the next subtopic, it is important to look at the variables related to the political orientation of the government that will lead the country's destinies. The results obtained allow us to see if the election of a government is relevant to the performance of the stock market index, but it does not allow us to see if the impact is statistically significant in the light of the election of another government with a different political-ideological orientation. For this, it is necessary to carry out a test where the hypothesis considered is that there is no difference between the different governments and proceed to carry out a test. Thus, for the regression [5.3], and equaling $L_t = R_{t-1} = C_t / I_t$ (H0), the results are this:

Table 6 - Results at political variables be equal when a coalition is formed

	F-Statistic value	p-value
Portugal	0.41	0.5221
Spain	0.02	0.8871
France	4.06	0.0199**
Italy	0.16	0.8549

The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

With these results presented below, is possible to observe what we expect when we look at the results of Table 3: because the difference between the election of a left-wing government and a right-wing government is too big (the difference is almost 18 percent) in

France, the p-value is only 0.0199 and the F-Statistic is 4.06, being relevant to the markets at a 5% level of significant whether a left government or a right government is elected. In the other countries under study, such as Portugal, Spain, and Italy, the government is indifferent to the financial markets, which was in line with the fact that there are not statistically significant political variables for these three countries in the results obtained in the regression [5.3].

For the next subtopic, it is relevant to distinguish between, which is called in literature when we refer to partisan theory, "traditional party models" and "rational party models" – according to the first concept, the effects of the shock on macroeconomic variables are permanent, unlike what happens in the second concept, where they are temporary, which should happen in a situation of efficient markets. In order to discover the answer to this question, a re-estimation of the regressions will be done in the next subtopic. Here, the ideological variables L and R (equal to one when left-wing or right-wing government form part of the new coalition) will be switched by LP and RP (is equal to one when a center-left or center-right government is leading the country's destinies), occurring the same for the variables C and I for CP and IP for the cases of France and Italy, respectively. With this slight change, it will be possible not only to understand if the election of a government has an impact on the stock markets of that country but if it is relevant which government manages the destinations of the country for the period established in the Constitution of each of these countries (usually, used to be 4 or 5 years) for financial markets.

5.2. Results of Regressions: when a partisan government is in power

In this second point, we will replicate the same structure that has been followed in the previous subpoint considering the same variables, as explained in Chapter 4, with a difference in terms of political parties that will be considered the whole period when a party was in power and not just the quarter that he was elected through elections. So, for the first regression in this second part, we present the following results:

[5.4]   INSMt = CLIt + DDOLt + IRt + IS&Pt + ELECt-1 + LPt + RPt-1 + (IPt / CPt / PURPt)

Table 7 - Regression Results basis when a party is in power

	Reference Study	Portugal	Spain	France	Italy
c value	0.18 (0.08)	-1.02 (-0.26)	-1.53 (-0.43)	-4.68 (-1.19)	-0.026 (-0.01)
Dollar exchange rate (DDOLt)	0.54 (1.96)	0.32* (1.83)	0.28** (2.47)	0.41*** (4.49)	0.25* (1.72)
% change in the reference market (IS&Pt)	0.60 (7.61)	0.79*** (6.50)	0.98*** (11.13)	0.98*** (13.81)	0.88* (8.86)
Long-term interest rate (IRt)	-4.06 (-2.87)	-0.03** (-2.54)	-0.069*** (-5.21)	-0.047** (-2.14)	-0.053*** (-3.69)
Composite Leading Indicator (CLIt or KBCt index)	1.14 (2.22)	2.67*** (3.01)	1.19 (1.36)	2.90*** (3.75)	3.23*** (2.87)
Left (LPt)	-1.25 (-0.54)	0.84 (0.21)	1.10 (0.32)	3.89 (0.99)	0.23 (0.07)
Right (RPt)	1.05 (0.44)	-0.992 (-0.23)	0.64 (0.19)	4.68 (1.19)	-1.25 (-0.41)
Purple (PURPt)	-1.72 (-0.46)				
Center (CPt)				4.15 (0.97)	
Independent (IPt)					-1.65 (-0.51)
Elections (ELECt-1)	8.04 (3.58)	-0.14 (-0.04)	-4.25* (-1.80)	-3.24 (-1.39)	-2.64 (-0.94)
R²	0.51	0.51	0.67	0.73	0.64
R² adjusted	0.47	0.47	0.65	0.71	0.61
White Test (Heteroscedasticity)		0.7989	0.8091	0.0587	0.9424
Breusch-Godfrey Test (Autocorrelation)		0.5776	0.1439	0.4115	0.6902
Durbin-Watson (DW)	1.96	2.22	2.30	2.28	2.26
n	108	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the parties (LP, RP, IP, CP, or PURP) are 1 when the government of that political ideology is running the country. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

The conclusions obtained are similar to which we have in the regression [5.1.] in the previous subpoint – the considerations made here about the dollar exchange rate (DDOLt), the importance of the S&P 500, the long-term interest rate (IRt), and the Composite Leading Indicator (CLIt) are valid here. These four variables, as expected, are statistically significant, at least, at 10% level, and similar to those obtained in equation 1, as in Vuchelen (2003).

Looking at the details, we can say that, like happened in the study of Vuchelen (2003),

in France, when we stop looking at the formation of the coalition and look at governance by a certain party, the variables related to the political orientation of the government in power are not statistically significant. We can also say that, in Spain, elections now have a statistically significant impact at 10% level, contrary to the results obtained in the first subpoint and line with the results obtained by Vuchelen (2003): with a significant difference, in Belgium, the impact of the elections on the financial market is positive whereas in Spain this is negative.

Now, with the variables relative to EURt, have the results of the regression [5.5]:

[5.5] $INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + EUR_t + EUR_t * ELEC_{t-1} + ELEC_{t-1} + LP_t + RP_{t-1} + (IP_t / CP_t)$

Table 8 - Regression results with the variable Euro

	Portugal	Spain	France	Italy
c value	0.96	-1.32	-7.76	1.25
	(0.22)	(-0.36)	(-1.54)	(0.37)
Dollar exchange rate (DDOLt)	0.29	0.28**	0.40***	0.21
	(1.65)	(2.43)	(4.29)	(1.38)
% change in the reference market (IS&Pt)	0.78***	0.98***	0.97***	0.87***
	(6.37)	(10.81)	(13.64)	(8.68)
Long-term interest rate (IRt)	-0.028**	-0.069***	-0.044*	-0.052***
	(-2.27)	(-5.13)	(-1.95)	(-3.53)
Composite Leading Indicator (CLIt)	2.72***	1.23	2.93***	3.25***
	(3.06)	(1.36)	(3.77)	(2.85)
Left (LPt)	-0.54	0.95	7.30	-0.14
	(-0.13)	(0.27)	(1.46)	(-0.04)
Right (RPt-1)	-2.07	0.49	8.43*	-1.19
	(-0.50)	(0.14)	(1.67)	(-0.38)
Center (CPt)			8.46	
			(1.55)	
Independent (IPt)				-2.06
				(-0.62)
Elections (ELECt-1)	6.42	-4.92	0.92	-5.14
	(0.98)	(-1.32)	(0.19)	(-1.13)
Euro (EURt)	-0.95	-0.09	-1.00	-1.50
	(-0.52)	(-0.07)	(-0.94)	(-0.92)
Elections * Euro (ELECt-1 * EURt)	-9.01	1.12	-6.14	3.99
	(-1.17)	(0.23)	(-0.99)	(0.67)
R²	0.52	0.67	0.74	0.64
R² adjusted	0.47	0.64	0.71	0.61
White Test (Heteroscedasticity)	0.4650	0.8930	0.0672	0.9322
Breusch-Godfrey Test (Autocorrelation)	0.5120	0.1462	0.2155	0.6186
Durbin-Watson (DW)	2.24	2.30	2.36	2.27
n	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the parties (LP, RP, IP, or CP) are 1 when the government of that political ideology is running the country. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

Once again, the results are similar to those who are obtained with the equivalent regression in the previous part (in this case, regression 2), when we can conclude that joining the Euro seems to have a negative impact on all the countries under study, but not statistically significant at any level. So, the conclusions made in the previous point remain relevant for this part, about the expectations of the adhesion and the reasons that could explain the fact that the introduction of the variable Euro was irrelevant to explain the model.

Now, we will move on to the last regression that will be estimated, the regression [5.6], when the variables related to the financial crisis are added and the results are presented in the table below:

[5.6] $INSM_t = CLI_t + DDOL_t + IR_t + IS\&P_t + EUR_t + EUR_t * ELEC_{t-1} + ELEC_{t-1}$
$+ cris\_fint + cris\_fint * ELEC_{t-1} + LP_t + RP_{t-1} + (IP_t / CP_t)$

Table 9 - Regression results considering the Financial Crisis

	Portugal	Spain	France	Italy
c value	2.51	1.68	-12.99	1.52
	(0.53)	(0.41)	(-1.61)	(0.46)
Dollar exchange rate (DDOL$_t$)	0.32*	0.27**	0.40***	0.22
	(1.79)	(2.41)	(4.34)	(1.44)
% change in the reference market (IS&P$_t$)	0.79***	0.99***	0.99***	0.87***
	(6.41)	(10.98)	(13.61)	(8.60)
Long-term interest rate (IR$_t$)	-0.026**	-0.069***	-0.045*	-0.052***
	(-2.11)	(-5.17)	(-1.98)	(-3.48)
Composite Leading Indicator (CLI$_t$)	2.72***	0.87	2.63***	3.16***
	(3.03)	(0.94)	(3.25)	(2.75)
Left (LP$_t$)	-2.13	-2.00	12.39	-0.55
	(-0.45)	(-0.51)	(1.55)	(-0.17)
Right (RP$_{t-1}$)	-3.69	-2.72	13.71*	-1.11
	(-0.78)	(-0.68)	(1.70)	(-0.35)
Center (CP$_t$)			12.78	
			(1.56)	
Independent (IP$_t$)				-2.28
				(-0.69)
Elections (ELEC$_{t-1}$)	7.22	-5.78	3.49	-5.25
	(1.09)	(-1.54)	(0.62)	(-1.15)
Euro (EUR$_t$)	-0.30	0.30	-0.22	-1.03
	(-0.15)	(0.20)	(-0.18)	(-0.60)
Elections * Euro (ELEC$_t$ * EUR$_t$)	-7.70	5.23	-8.47	5.39
	(-0.94)	(0.97)	(-1.30)	(0.76)
Financial Crisis (cris_fint)	-1.87	-0.74	-1.98	-1.81
	(-0.83)	(-0.41)	(-1.33)	(-0.94)
Financial Crisis * Elections (cris_fint * ELEC$_{t-1}$)	-4.92	-11.01	-6.64	-1.87
	(-0.54)	(-1.59)	(-0.63)	(-0.25)
R²	0.52	0.68	0.74	0.65
R² adjusted	0.47	0.65	0.72	0.60
White Teste (Heteroscedasticity)	0.6952	0.9037	0.0886	0.9782
Breusch-Godfrey Test (Autocorrelation)	0.4897	0.2470	0.1174	0.5017
Durbin-Watson (DW)	2.25	2.25	2.42	2.28
n	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the parties (LP, RP, IP, or CP) are 1 when the government of that political ideology is running the country. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

In this part, we also cannot see significant changes in comparison with the regression [5.3] estimated previously. The financial crisis, as it occurred in the previous point, it is not a statistically significant variable to explain the stock index performance of the countries under study. More one time, we could try to say that they have a negative impact on the performance of the financial markets, which is a reasonable conclusion for what is expected and that is reflected in all the regressions estimated for each of the countries but not being a statistically significant variable, we can consider it irrelevant to explain the model. Although, there is something of interest to highlight about France. Governance by any of the government's ideologies (be it left, right, or center government) has a very positive impact on the performance of the French stock exchange index CAC-40, and in the case of a right-wing government the variable is even statistically significant at 10% level, that is something new to observe because neither in the work carried out by the reference author nor in the other countries under study, this phenomenon is verified, being the government's political orientation completely irrelevant to analyze the performance of the stock market index of the country concerned. Related to this, it is important to take a closer look at the variables relating to the political orientation of the government that leads the country's destinies. The results obtained allow us to see if a government with certain political ideals that is leading the country is relevant to explain the performance of the stock market index, but it does not allow us to see if would be substantially different if another government was led the country. For this, we have done a test where the hypothesis considered is that there is no difference between the different governments and proceed to carry out a test. Thus, for the regression [5.6], and equaling $LP_t = RP_{t-1} = CP_t / IP_t$ (Hypothesis 0), the results obtained are as follows:

Table 10 - Results at political variables be equal when a party is in power

	F-Statistic value	p-value
Portugal	0.77	0.3827
Spain	0.32	0.5706
France	0.77	0.4632
Italy	0.39	0.6783

The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

With these results presented above in Table 10, we conclude that, even if a right-wing government has a statistically significant impact on the performance of the CAC-40,

there is no substantial difference between a right-wing government and another government that is leading the country's destinations in France. In the case of Portugal, Spain, and Italy, the results were already expected to be not statistically significant, considering that none of the political variables estimated in regression [5.6] presented above were statistically significant.

Featured the results in chapter 5, in the next chapter some robustness tests will be made, and some points will be discussed in variables that can be interpreted from a different perspective.

6. Robustness Tests

In this chapter, some robustness tests will be done and discussed. You will be performed some tests changing some variables that could be more controversial or, in the alternative, could be a great impact on the results of the model. Firstly, will be assumed that the reasons were given by Vuchelen (2003) for the existence of a lag for the variable R and RP is not justifiable and, so, we will estimate a model with the variable R and RP without any lag. Afterward, we will look for the variable Euro that, in the original model, was assumed that will be started in 2002 (when the currency effectively started to circulate) but rather assume as the period of the beginning of the Euro that which was the beginning of the second phase of Economic and Monetary Union, that is, from the year 1994. Considering the data and considering that the sample period concerning Portugal and Italy only start in 1993, this second test will only be carried out for Spain and France. Afterward, we will analyze the issue of elections in two different ways: firstly, answering to one of the issues raised in the study of Vuchelen (2003), studying a possible difference that may exist between expected and unexpected elections, to understand if the behavior of the financial markets is substantially different in these situations and hereafter, considering that we had considered in the previous chapter the elections with a lag of 1 period, that is, observing the behavior of the financial markets in the quarter before the election date, here, we will look for the behavior of the stock market indexes in the quarter where the election takes place and the impact on the results obtained for the four countries under analysis will also be analyzed. Finally, will be studied if the model does not suffer any problems with the question of endogeneity, through the Granger Test.

6.1. The question of the right-wing government

One of the points that may raise more doubts in the study carried out by Vuchelen (2003) is the fact that he introduced a lag in the variable R and RP relative, respectively, to the coalition and governability of right-wing governments. In their study, Vuchelen (2003, pp.97) said about the lag when a right-wing government is elected or when is considered the governance, and I quote "This asymmetry cannot be explained on theoretical grounds. Our interpretation is that investors wait to see if some elements of the right-wing party program will be implemented. In other words, they are afraid of being too optimistic too soon about future policies". In fact, there may be some uncertainty as to whether the new government

will be able to comply with everything that was agreed in the electoral program, but this situation can occur with any elected government, not necessarily with a specific political orientation. So, we considered that is unfair to place this situation directed only at a right-wing government. At this point, this fact will be questioned, due to its fragile argumentation, and we will discuss and see if there is a meaningful difference between the results obtained considering the variable R or RP with or without lag.

For that, re-estimating the equations previously obtained is something that is required to do. For this, we will use as a basis the last equations estimated in each one of the subpoints of Chapter 4, not considering the lag in the R or the RP variable. In this part, we will discuss the results obtained, results that can be consulted in appendix 1 and 2, respectively, when the lag in R and the lag in RP variables are retired.

When we look at the results, starting with the election of a government of a certain party, we find that in France the variable L was statistically significant at 5% and remained so, as expected, because there has not occurred any modification in this variable. However, when we refer to variable R, the withdrawal of the lag that existed in this variable in the previous chapter implies that, in France, the variable ceased to be statistically significant at 10% level, that is, the election of a right-wing government left of being relevant to the performance of the French stock markets and the reverse situation has occurred in Spain, being this variable becomes statistically significant at 10% level.

Now, when we move on to the analysis of considering the entire period that a government of a given political orientation is in the government (usually called partisan government), it is necessary to consider one thing: the evaluation of the variable turns out to be different, because while in the previous case we looked for the positive impact of each government on the performance of the financial markets, and then, if we wanted to compare if there were differences between the variables, we could perform a new test where we equalized the variables and saw if there really was a difference between the different governments, in this case, in the new regression the values that are obtained must be analyzed as the difference that exists between the variable under study and the variable that is missing (that is, in this case, the value obtained for Portugal and Spain is the difference between a government of left and a right-wing government and, in the case of France and Italy, the difference between a left-wing or right-wing government versus a government of center or independent, as we are referring to France or Italy, respectively. Therefore, when in the previous chapter it was mentioned that a right-wing government was statistically significant

at 10% level in Chapter 5.2., we were not referring to a right-wing or center government, but the impact that a right-wing government had, alone, on the French stock index. When, in turn, the test of whether it is a left-wing government, right-wing government, or center governance relevant for the French stock market, we could clearly conclude that it was not relevant because they all had a positive impact (although the other variables were not statistically significant for very little) on the performance of the CAC-40, and it is these results that end up being confirmed when, in this regression, we establish a relationship between the performance of a left-wing government comparing with a right-wing government or center government, that it is not, in fact, statistically significant, neither for France nor for any of the other three countries under study, as had already been indicated in the previous chapter, with nothing new about this subject.

6.2. Change in the variable Euro

As stated in the introductory part of this chapter, in this subpoint we will consider that the Euro dummy variable has a value equal to 1 from the year 1994 and not from 2002. On January 1, 2002, it was the official date on which the national currencies of the countries that joined the founding of the single currency, were replaced by the currency called the Euro, but the process for creating that currency at the European level began much earlier. In the first phase, in 1990, the first step was taken towards the creation of an Economic and Monetary Union, but it was in 1994 that, through the Maastricht Treaty signed in 1991 and with the introduction of the second phase and the introduction of the application of the convergence criteria (Feldsieper, 1998; Jeronimo et. al., 2000), the creation of a currency global economy at European level seemed less and less a utopia and more and more a medium-term reality for financial markets. For this reason, in this subpoint, we will study whether the consideration that the Euro starts in 1994 instead of 2002 has any impact on the results obtained in the estimated model. Due to the fact that our data for Portugal and Italy started only in the year 1993 and that we had few observations before 1994 (only 4), this test will only be carried out for the cases of Spain and France, with the final results of the regressions estimated to be presented in annex 3 when a coalition is formed and in annex 4 when it is considered all the period that a party was led the country's destinations.

The truth is that, when we proceed to the re-estimation of the equations considering the new Euro variable to start in 1994 (which will be called eur_b), there are no changes that are relevant to be highlighted. When we look at the case of Spain, whether we are considering

the moment when a coalition government is formed or the period of governance by a particular party or govern in a coalition of a given political orientation, the statistically significant variables are the same, the Dollar Exchange Rate (DDOL$_t$) at 5% level, the Long-Term Interest Rate (IR$_t$) and the quarterly change in the S&P 500 Index (IS&P$_t$) which are statistically significant at 1% level, with no changes in this case, neither in the variable that was modified nor in any of the other variables under study.

In the case of France, the situation was slightly different. Is true that, for both cases (when you consider only equal to one when a coalition is formed or when a government by certain political orientation is leading the country's destinations), the new variable Eur_b is not statistically significant, as it was not already the variable Eur in the previous regressions presented in the last Chapter. Furthermore, the variables that were statistically significant at 1% of significance level remain significant in the new estimated regressions (namely, Dollar Exchange Rate, the Composite Leading Indicator, and the variations in the S&P 500 reference stock market). The only small impact that is possible to detect is when we look at the political parties and, especially, at the right-wing governments: in this case, the new regressions estimated considering that the Euro begins in January 1994 and not at January 2002 causes right-wing governments to cease to be statistically significant at 10% level and, therefore, that there is some reduction in the importance of the government that is leading the destinies of the country, with the election of a left-wing government now being only statistically relevant, whose effects are diluted according to governance, as demonstrated, for example, in the study by Vuchelen (2003) for the Belgian case.

6.3. Expected and unexpected elections

In Chapter 5, one of the variables that have been used was elections (ELEC$_t$), as it is usually considered a relevant variable for estimating these types of models. However, one of the questions that can be considered is whether we should not make a distinction between expected and unexpected elections, taking into account that unexpected elections usually take place in circumstances other than the expected elections, as a rule, and tend to catch the financial markets by surprise (this surprise may be greater or less depending on the political moment that the country is going through), in the sense that the elections were planned to take place on another date and were anticipated. The question of uncertainty is considered very relevant, although it is sometimes overlooked in the literature, and has been studied by

authors such as Berlemann & Markwardt (2007) or, more recently, by authors like Hampton (2018), Ramelli et. al. (2018) and Wagner et. al. (2018) about the impacts in the U.S. of Donald Trump's surprise election in 2016, with unexpected results. However, here, the surprise result of the election will not be studied in the face of what was expected by investors - a relevant topic that could be studied in the future, but rather the scheduling of elections for a period earlier than initially was expected, a theme that was tested unsuccessfully in the reference study of Vuchelen (2003) but which I believe is relevant to be studied

In this subpoint, we will look at the impact that expected and unexpected elections have on the financial markets and try to understand if there is a significant difference between the two types of elections. This analysis will be carried out for only three of the four countries that are being studied here (Portugal, Spain, and Italy), taking into account that, due to the unique characteristics of the French political system, France never had in the period considered in our sample elections in advance in face of the predicted, and the results of the regressions will be presented in appendix 5 and 6, in this subpoint the results of the test to hypothesis H0 will show that the expected elections will be the same as the unexpected elections (elecexp = elecunexp).

However, before proceeding to the estimation of the results and their respective analysis, it is extremely important to distinguish what is expected elections (elecexp) and unexpected elections (elecunexp). Therefore, expected elections will be considered as all those that take place at the end of a government's term of office, in the period provided for under that country's constitution whereas unexpected elections will be all those that take place in advance, regardless of whether they are the result of a motion. from successful censorship of a prime minister or derived from an electoral advance that was made by the prime minister himself because he believes that this can bring him political benefits. With this distinction made, it is already possible to proceed with the analysis of the results, which, do not present any changes to us. In terms of the variables that have been replaced (ELEC by elecexp and elecunexp), none of them is statistically significant to explain the behavior of the stock markets in each of the countries under study, not having a significant impact on the final results obtained. When we look at the other variables, we see that, with the lonely exception that occurs in Spain, in the situation where we consider all government governance in the political variables, the variable that analyzes the financial crisis in the election period is statistically significant at 10% level that was not in the regression estimated in the previous chapter. Therefore, in this consideration that was made of expected elections and unexpected

elections, the division is not necessary to try to improve the government, as you can see when we performed the test elecexp = elecunexp (H0) and we see if there is any difference among them, the results obtained are clear in pointing out that they are not and are as follows:

1) When a coalition is elected:

Table 11 - Results if expected elections are equal to unexpected elections when a coalition is formed

	F-Statistic Value	p-value
Portugal	0.002	0.9672
Spain	0.03	0.8675
Italy	0.25	0.6205

The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

2) When it is considered all the time that a party was in power:

Table 12 - Results if expected elections are equal to unexpected elections when a party is in power

	F-Statistic Value	p-value
Portugal	0.20	0.6522
Spain	0.35	0.5568
Italy	0.29	0.5931

The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

As it is possible to observe in tables 11 and 12, the p-value is higher than 0.05 for all cases, whether we are referring to Portugal, Spain, or Italy and we are considering only the moment when the government is elected or the full period in which the government of a certain political orientation has running the country - which in this case is the equivalent of saying that the variables introduced in the model are not significant and do not help to explain the performance of the stock market indexes of each one of the countries under analysis.

6.4. The question of lag in the variable Elections (ELEC$_t$)

In the previous chapter, it was assumed that the variable Elections should be accompanied by a lag of one unit, following the studies presented by the reference author Vuchelen (2003). And, if it is true that the months before the election can have a very relevant

impact on the financial markets, and this may be due to the uncertain situation of who will be the winner of the upcoming elections, to the fear that certain political parties may reach the end. government with ideologies that do not please investors or a situation of instability that may be aggravated by the lack of clear political leadership and parliamentary strength, it is also true that the moments immediately preceding the elections are extremely relevant, as well as the subsequent days, and are a period of disclosure of a lot of information to all citizens, including those who operate on that country's stock market. Could also be considered the months following, especially in countries where political uncertainty is very present, with a very fragmented parliament and where alliances can be difficult and unpredictable, and where the formation of a new government is a long and complicated process. However, in this case, the creation of new governments does not tend to be complicated in Portugal and France (due to the electoral results or the political system) and, in the case of Spain, it only became a problem as of 2016, although always knew what would be the most logical government alliance that could occur. Therefore, for this case, we will only consider elections with a lag of one unit, as performed in the previous chapter, but also adding a new variable where there will be no such lag, being the results presented in an appendix.

More one time, we will start to look at the situation when a coalition is formed. When we look at these results, we see that the most significant change occurs when, considering the variables $ELEC_t$ and $ELEC_{t-1}$, the first becomes statistically significant at 10% level in the case of Spain, which indicates that the situation that occurs before elections has a negative impact on the Spanish IBEX-35 stock index. In the case of Italy, the introduction of the new variables is completely irrelevant and, in the cases of Portugal and France, it causes the variables Long-term Interest Rate (IR_t), in the case of Portugal, and the election of a left-wing government (L_t), in the case of France, become statistically significant from 10% to 5% level, in the case of Portugal, and from 5% to 10% level, in the case of France, not being very significant changes at the results obtained, like we can see in appendix 7.

On the other hand, if we consider a situation when a government is in power and not only when a coalition is formed, which results are in annex 8, we have more changes that should be reported. In the case of Portugal and Italy, the variables related to the elections are not statistically significant and there is no change in the significant variables and their level of significance compared to the regression [5.3] in Chapter 5. In Spain, the estimation of the new regression makes both variables related to the elections ($ELEC_{t-1}$ and $ELEC_t$)

statistically significant at 10% level, which means that the elections have a negative impact on the Spanish stock index, either in the months before the election, or at the time of the election. Last but not least, France is a completely different case because as it is possible to see in the table placed in appendix 8, in the results presented, when the White Test is made, the regression presents problems of heteroscedasticity (p-value lower than 0.05), which requires the use of an estimator that is consistent in the presence of heteroscedasticity, with this option falling on the estimator of Newey-West. Due to this situation, several variables became statistically significant, such as the political variables with the different political parties, which became statistically significant at 1% level at the individual level (although, afterward, there is no difference in the government that leads the country's destinations because any government has a positive impact on the French stock market index) and the variable Elections with a lag of one unit, which also shows to have a positive impact on the French stock market index. On the other hand, there are two variables that, in the new estimated regression, have become statistically significant with a negative impact on the performance of the CAC-40, the French stock index, which is the variable that looks at the elections that took place, considering a lag of 1 unit, since France joined the Euro, at 5% significance level and the elections that took place during the period of the financial crisis that hit Europe at 10% significance level, which for the purposes of the study has been considered the period between 2008 and 2013 inclusive.

To sum up, it is possible to refer that, although the use of 1 lag for the elections variable is a practice verified in several scientific studies in this area, and justified by a well-known author like Alesina (1997), we should not disregard the hypothesis of proceeding to the use of another variable related to the elections, without considering the lag in that variable, considering the impact that the days before and after the election can have on the performance of the stock market indexes of that country during this period, as these results are interpreted by investors in the financial markets.

6.5. The question of endogeneity (Granger Test)

So far it has been assumed, as an assumption, that the independent variables helped to explain the dependent variables and that the dependent variables had no impact on the independent variables. However, this assumption does not always hold and sometimes the dependent variables also explain the independent variables, which is a problem that can be

found in some estimated models. To verify if this situation happens, an endogeneity test will be carried out using, in this case, the Granger Test.

One of the authors who introduced this question was Granger. In his paper, Granger (1969, pp.424) managed to develop a model that, and I quote, "it can be shown that the cross-spectrum between two variables can be divided into two parts, each relating to a single causal arm of a feedback situation". Therefore, to carry out the test, two variables must be tested at a time, one of which must be the dependent variable and the other one of the independent variables previously used in the models.

The first independent variable that will be tested is Elections, together with the dependent variable (which is always tested). Although there is not much literature for this specific case, the question that arises is whether it will only be the elections and their results that have consequences on financial markets of the country under study or if there may also be an inverse relationship of the performance of the financial markets having an impact on which are the election results. The dollar exchange rate (DDOLt) independent variable will also be tested, a variable that is already customary to undergo this type of test when the dependent variable is the performance of the stock market, as performed by authors such as Ajayi et al. (1998, pp.248) when was "statistically significant (at one percent level) unidirectional causality from stock return differentials to changes in exchange rates in all the six advanced markets in our sample" whereas "the results for emerging economies show that unidirectional causality is statistically significant, (at the one percent levels) in three of the eight countries under study", Granger et al. (2000, pp.337) when "it is found that data from South Korea are in agreement with the traditional approach. That is, exchange rates lead to stock prices. On the other hand, data of the Philippines suggest the result expected under the portfolio approach: stock prices lead to exchange rates with negative correlation. Data from Hong Kong, Malaysia, Singapore, Thailand, and Taiwan indicate strong feedback relations, whereas that of Indonesia and Japan fail to reveal any recognizable pattern." and, more recently, Luzarraga-Goitia et. al. (2021) does not show a clear pattern but, in periods of crisis (in that study the period of crisis was considered between 2008-2015), seems to exist unidirectional causality from exchange rates to stock market. Finally, the last independent variable to test will be the long-term interest rate (IRt), when studies such as Gjerde & Sættem (1998, pp.73) that show, for the case of Norway, "the significance of the real interest rate, which e.g. leads inflation and influences stock returns immediately" and Ahmed et al. (2017) for the case of Pakistan, when was found unidirectional causality from

Interest Rate to the KSE100 and no correlation, at 10% level, from KSE100 to Interest Rate. So, due to the fact that some studies prove the existence of a causal relationship between these two variables, was thought that would be pertinent to study them.

Since previous research has demonstrated that the choice of lag has significant impacts on the final results obtained in the Granger Test, as shown by Thornton & Batten (1984). For that, and to ensure the most reliable results possible, we will proceed to the minimization of the Akaike Information Criterion (AIC) / Schwarz Information Criterion (SC), starting with the lag of one, using a similar methodology as used by Paramati et al. (2016) and Lopez & Weber (2017), in their cases for Panel Data, through the tools provided by EViews and for Cheng et al. (2006), where they used Hannan-Quinn Criterion (HQ) and AIC to select the optimal lag for running the Granger causality Test.

For this case and taking into account that the ADF Test rejected the Unit Root Hypothesis, that is, it confirmed that the Stock Market variables for each one of the four countries are stationarity, no different levels are required. As such, table 13, inserted below, will show a summary of the results of the Granger causality test. The results are that no endogeneity problems are found when is used as lag criteria the lag minimization according to the Akaike Information Criterion (AIC) / Schwarz Information Criterion (SC) for lags between 1 and 8.

Table 13 - Testing Causality using the Granger Test

	Portugal	France	Spain	Italy
DDOL -» Stock Market	0.005 (0.9456)	0.931 (0.3364)	1.083 (0.3000)	0.078 (0.7801)
Stock Market -» DDOL	0.384 (0.5370)	0.229 (0.6329)	0.228 (0.6338)	0.011 (0.9160)
IR -» Stock Market	1.099 (0.2970)	0.134 (0.7153)	0.063 (0.8017)	1.066 (0.3043)
Stock Market -» IR	0.114 (0.7365)	2.326 (0.1298)	0.276 (0.6000)	1.246 (0.2669)
Elections -» Stock Market	0.985 (0.3232)	1.841 (0.1773)	1.268 (0.2624)	2.632 (0.1077)
Stock Market -» Elections	0.009 (0.9230)	0.057 (0.8116)	0.284 (0.5949)	1.063 (0.3050)

The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

7. Conclusion

This work aimed to study some Western European countries, using the reference study by Vuchelen (2003) as a starting point and updating it with the necessary information and the study of relevant variables that occurred during the period of the study under analysis (1988-2019 for Spain and France and 1993-2019 for Italy and Portugal).

It was possible to conclude, according to the results of the study, that the main determining variables for the performance of the financial markets were the macroeconomic variables. On the other hand, the variables that were related to political factors did not prove to be statistically significant throughout the model. Thus, the foregoing results can be understood as being favorable to the existence of "business cycle theory".

On the other side, the "partisan theory" does not seem to apply in this case. Although in many studies there is a clear difference between when considering the moment when a certain party won the elections and considering the entire period of government of that same government, with the rare exception of France (which proved to be statistically significant at 5% level when a government is created), there is no evidence that the government has any influence on the performance of the country's stock market index either for when a government is elected or when is considered the period of governance. This shows that, to a certain extent, governments and financial markets adapt to each other and the results end up not producing significant effects during the governance period, being the economic variables much more relevant to explain the evolution of stock market indexes.

On the other hand, there could be an expectation that the introduction of a Euro variable could be statistically significant, considering that the introduction of a single currency that would replace national currencies, together with the rules that were introduced for the adhesion of countries, could have a significant impact on the stock market index of each country. The results showed, for all countries, unequivocally, that the introduction of the Euro is not significant, whether we consider the official entry of the Euro in 2002 or, alternatively, the beginning of the second phase of the creation of the Economic and Monetary Union in 1994. Similar conclusions were reached when we analyzed the financial crisis that affected Europe, first the Global Financial Crisis in 2008 and 2009 and then the European Sovereign Debt Crisis (or European Financial Crisis) between 2010 and 2013.

Another variable that is important to highlight is the issue of elections. Contrary to what happens in the reference study by Vuchelen (2003), the existence of a significant impact

of elections on the performance of financial markets is not estimated. Concerning this matter, several studies reach different conclusions, with much more consensus regarding the volatility of financial markets during the election period, as indicated in studies such as Goodell & Vähämaa (2013) and Mnasri & Essaddam (2021), for the case of American elections, Bialkowski et al. for 27 countries belonging to the OECD and Opare (2012) for a group of European countries and Siokis & Papapoulos (2007), something that has not been tested in this work and, on which nothing can be concluded than the existence of a significant change in returns in the electoral period, either these are positive or negative. Regarding the possible impact or not of elections on financial markets, we have studies that point in both directions: authors such as Vuchelen (2003), Leblang & Mukherjee (2005) and Oehler et. al. (2013) who clearly said that elections have an impact on the financial markets, whereas other studies like Kabiru et. al. (2015) is unable to clearly answer this question and Siokis & Papapoulos (2007), which found, for the case of Greece, that considering the 1986-2004 period the elections did not have a significant impact on the financial markets, but that this impact existed if we consider the 1994-2004 subperiod, and others say emphatically that elections have no impact on the financial markets, as are the cases of Abidin et. al. (2010), for almost all the New Zealand's elections apart from 2002, Jandl (2014) and Hasmin & Mosallamy (2020) - these last studies have similar results to those we found for the countries under study, except for some cases when Spain for the regression [5.4] and in appendix 7 and 8 when is found that elections are statistically significant at 10% significance level. Finally, should be mentioned that, in the Tests of Endogeneity, no causality was found between the dependent variable and the different independent variables tested.

However, for further research, these results still leave unanswered some important questions that can be discussed in the future. Firstly, the question of expected elections and unexpected elections can be something that could be re-studied. In this work, the issue was looked at from the point of view of the election date - that is, if the elections were on the date originally planned, they were expected and, if they were anticipated, they were unexpected. But the question can also be looked at from the point of view of the results of the elections, collecting the polls before the elections and, through the appropriate tests, making a comparison and discovering the elections with the most surprising results and those that were the most expected - possibly, the surprising results will be expected to provoke greater movements in the stock market of the respective countries, for transmitting unexpected news and information to investors. Secondly, the impact of electoral

fragmentation (more parties and a winner farther from the absolute majority of votes and deputies and, as consequence, more dependent on support for led the country) can be studied through the introduction, for example, of an entropy indicator. This situation could lead, for example, to the need for a larger period for the formation of a government, the repetition of elections more frequently or the occurrence of political crises more regularly. Finally, from my perspective, it would be extremely interesting to replicate this study to Eastern countries that left the domain of the Union of Soviet Socialist Republics (USSR) and joined the European Union (EU) in 2004, which could provide extremely interesting results considering their political, economic, social and historical context - the results could be extremely interesting and eventually bring new relevant information to the scientific community, from my perspective.

References

Abidin, S. Z., Old, C., & Martin, T. (2010). Effects of New Zealand general elections on stock market returns.

Ahmed, R. R., Vveinhardt, J., Streimikiene, D., & Fayyaz, M. (2017). Multivariate Granger causality between macro variables and KSE 100 index: evidence from Johansen cointegration and Toda & Yamamoto causality. *Economic research-Ekonomska istraživanja*, *30*(1), 1497-1521.

Ajayi, R. A., Friedman, J., & Mehdian, S. M. (1998). On the relationship between stock returns and exchange rates: tests of Granger causality. *Global finance journal*, *9*(2), 241-251.

Alesina, A., & Sachs, J. (1988). Political Parties and the Business Cycle in the United States, 1948 1984. *Journal of Money, Credit, and Banking*, *20*(1), 63-82.

Alesina, A. (1989). Politics and business cycles in industrial democracies. *Economic policy*, *4*(8), 55-98.

Alesina, A., & Roubini, N. (1992). Political cycles in OECD economies. *The Review of Economic Studies*, *59*(4), 663-688.

Alesina, A., Roubini, N., & Cohen, G. D. (1997). *Political cycles and the macroeconomy*. MIT press.

Allvine, F. C., & O'Neill, D. E. (1980). Stock market returns and the presidential election cycle: Implications for market efficiency. *Financial Analysts Journal*, *36*(5), 49-56.

Altavilla, C., & Giannone, D. (2017). The effectiveness of non-standard monetary policy measures: evidence from survey data. *Journal of Applied Econometrics*, *32*(5), 952-964.

Andrea, T., Beata, G., & Marcel, B. (2017). The composite leading indicator for German business cycle. *Journal of Competitiveness*, *9*(4), 114.

Arrata, W., Nguyen, B., Rahmouni-Rousseau, I., & Vari, M. (2020). The scarcity effect of QE on repo rates: Evidence from the euro area. *Journal of Financial Economics*, *137*(3), 837-856.

Baele, L., Ferrando, A., Hördahl, P., Krylova, E., & Monnet, C. (2004). *Measuring financial integration in the euro area* (No. 14). ECB occasional paper.

Baldini, G. (2011). The different trajectories of Italian electoral reforms. *West European Politics*, *34*(3), 644-663.

Bartram, S. M., & Karolyi, G. A. (2006). The impact of the introduction of the Euro on foreign exchange rate risk exposures. *Journal of empirical finance*, *13*(4-5), 519-549.

Bartram, S. M., Taylor, S. J., & Wang, Y. H. (2007). The Euro and European financial market dependence. *Journal of Banking & Finance*, *31*(5), 1461-1481.

Berlemann, M., & Markwardt, G. (2007). Unemployment and inflation consequences of unexpected election results. *Journal of Money, Credit and Banking*, *39*(8), 1919-1945.

Bialkowski, J., Gottschalk, K., & Wisniewski, T. P. (2007). Political orientation of government and stock market returns. *Applied Financial Economics Letters*, *3*(4), 269-273.

Białkowski, J., Gottschalk, K., & Wisniewski, T. P. (2008). Stock market volatility around national elections. *Journal of Banking & Finance*, *32*(9), 1941-1953.

Beck, N. (1982). Does there exist a political business cycle: A Box-Tiao analysis. *Public Choice*, *38*(2), 205-209.

Belo, F., Gala, V. D., & Li, J. (2013). Government spending, political cycles, and the cross section of stock returns. *Journal of Financial Economics*, *107*(2), 305-324.

Benoit, K. (2000). Which electoral formula is the most proportional? A new look with new evidence. *Political Analysis*, 381-388.

Blais, A., & Carty, R. K. (1991). The psychological impact of electoral laws: measuring Duverger's elusive factor. *British Journal of Political Science*, *21*(1), 79-93.

Blais, A., & Loewen, P. J. (2009). The French electoral system and its effects. *West European Politics*, *32*(2), 345-359.

Black, D. (1958). The theory of committees and elections.

Bogdanor, V. (1984). *What is proportional representation?* (p. 44). Oxford: Martin Robertson.

Bohl, M. T., & Gottschalk, K. (2006). International evidence on the Democrat premium and the presidential cycle effect. *The North American Journal of Economics and Finance*, *17*(2), 107-120.

Booth, J. R., & Booth, L. C. (2003). Is presidential cycle in security returns merely a reflection of business conditions? *Review of Financial Economics*, *12*(2), 131-159.

Bordo, B. (2010). 1. The Globalization of International Financial Markets: What Can History Teach Us?. In *International financial markets* (pp. 29-78). University of Chicago Press.

Bormann, N. C., & Golder, M. (2013). Democratic electoral systems around the world, 1946–2011. *Electoral Studies*, *32*(2), 360-369.

Brack, N., Costa, O., & Pequito Teixeira, C. (2012). Attitudes towards the focus and style of political representation among Belgian, French and Portuguese parliamentarians. *Representation*, *48*(4), 387-402.

Burda, M., & Wyplosz, C. (2013). *Macroeconomics: a European text*. Oxford university press.

Bürzel, T. A. (1999). Towards convergence in Europe? Institutional adaptation to Europeanization in Germany and Spain. *JCMS: Journal of Common Market Studies*, *37*(4), 573-596.

Cahan, J., Malone, C. B., Powell, J. G., & Choti, U. W. (2005). Stock market political cycles in a small, two-party democracy. *Applied Economics Letters*, *12*(12), 735-740.

Calligaris, S., Del Gatto, M., Hassan, F., Ottaviano, G. I., & Schivardi, F. (2016). *Italy's productivity conundrum. A study on resource misallocation in Italy (No. 030)*. Directorate General Economic and Financial Affairs (DG ECFIN), European Commission.

Calomiris, C. W., Jaremski, M., & Wheelock, D. C. (2020). Interbank connections, contagion and bank distress in the Great Depression. *Journal of Financial Intermediation*, 100899.

Carlsen, F., & Pedersen, E. F. (1999). Rational partisan theory: evidence for seven OECD economies. *Economics & Politics*, *11*(1), 13-32.

Chappell, H. W., & Keech, W. R. (1986). Party differences in macroeconomic policies and outcomes. *The American Economic Review*, *76*(2), 71-74.

Cheng, J. C., Taylor, L. W., & Weng, W. (2006). Exchange rates and prices: revisiting Granger causality tests. *Journal of Post Keynesian Economics*, *29*(2), 259-283.

Chiaramonte, A., & D'Alimonte, R. (2018). The new Italian electoral system and its effects on strategic coordination and disproportionality. *Italian Political Science*, *13*(1), 8-18.

Comissão Nacional de Eleições (2021). Eleições/Referendos. Retrieved from: https://www.cne.pt/content/eleicoes-referendos

Constitucional, VII Revisão (1976). *Constituição da República portuguesa*. Lisboa.

Cowles, M. G., Caporaso, J. A., & Risse, T. (Eds.). (2001). *Transforming Europe: Europeanization and domestic change*. Cornell University Press.

D'Alimonte, R. (2015). The new Italian electoral system: majority-assuring but minority-friendly. *Contemporary Italian Politics*, *7*(3), 286-292.

Danthine, J. P., Giavazzi, F., & Von Thadden, E. L. (2000). European financial markets after EMU: a first assessment. National Bureau of Economic Research Working Paper Series, (w8044).

del Estado, B. O. (1978). Constitución española. *Madrid: Ministerio de la Presidencia. Retrieved December*, *10*, 2006.

Detken, C., & Hartmann, P. (2000). The euro and international capital markets. International finance, 3(1), 53-94.

Documentazione, U., & Costituzionale, C. (2017). Il Nuovo Sistema Elettorale : La " Legge Rosato ." 1–8.

Donovan, M. (1995). The politics of electoral reform in Italy. *International Political Science Review*, *16*(1), 47-64.

Döpke, J., & Pierdzioch, C. (2006). Politics and the stock market: Evidence from Germany. *European Journal of Political Economy*, *22*(4), 925-943.

Efstathiou, K., & Papadia, F. (2018). The euro as an international currency. *Bruegel Policy Contribution*, (2018/25), 18.

European Commission. (2013). Compreender as políticas da União Europeia: a União Económica e Monetária e o Euro. *Direcção Geral de Comunicação*. Bruxelles, Belgium.

Falkner, G. (2000). How pervasive are Euro-politics? Effects of EU membership on a new member state. *JCMS: Journal of Common Market Studies*, *38*(2), 223-250.

Feldsieper, M. (1998). Europa: Euro, a moeda única da Europa. *Revista Conjuntura Económica*, *52*(8), 126-129.

Foerster, S. R. (1993). Stock market performance and elections: made-in-Canada effects?

Foerster, S. R., & Schmitz, J. J. (1997). The transmission of US election cycles to international stock returns. *Journal of International Business Studies*, *28*(1), 1-13.

Furió, D., & Pardo, Á. (2012). Partisan politics theory and stock market performance: Evidence for Spain. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, *41*(155), 371-392.

Füss, R., & Bechtel, M. M. (2008). Partisan politics and stock market performance: The effect of expected government partisanship on stock returns in the 2002 German federal election. *Public Choice*, *135*(3-4), 131-150.

Galati, G., & Tsatsaronis, K. (2003). The impact of the euro on Europe's financial markets. *Financial Markets, Institutions & Instruments*, 12(3), 165-222.

Gallagher, M., & Mitchell, P. (Eds.). (2005). *The politics of electoral systems*. OUP Oxford.

Garas, A., Argyrakis, P., Rozenblat, C., Tomassini, M., & Havlin, S. (2010). Worldwide spreading of economic crisis. *New journal of Physics*, *12*(11), 113043.

Gärtner, M., & Wellershoff, K. W. (1995). Is there an election cycle in American stock returns? *International Review of Economics & Finance*, *4*(4), 387-410.

Gaspar, V., Perez-Quiros, G., & Sicilia, J. (2001). The ECB monetary policy strategy and the money market. *International Journal of Finance & Economics*, 6(4), 325-342.

Gjerde, Ø., & Saettem, F. (1999). Causal relations among stock returns and macroeconomic variables in a small, open economy. *Journal of international financial markets, Institutions and money*, *9*(1), 61-74.

Goetz, K. H. (1995). National governance and European integration: intergovernmental relations in Germany. *JCMS: Journal of Common Market Studies*, *33*(1), 91-116.

Goldberg, L. S., Kambhu, J., Sarkar, A., Mahoney, J. M., & Radecki, L. J. (2002). Securities trading and settlement in Europe: issues and outlook. *Available at SSRN 687145*.

Golden, D. G., & Poterba, J. M. (1980). The price of popularity: The political business cycle reexamined. *American Journal of Political Science*, 696-714.

Golder, M. (2005). Democratic electoral systems around the world, 1946–2000. *Electoral Studies*, *24*(1), 103-121.

Goodell, J. W., & Vähämaa, S. (2013). US presidential elections and implied volatility: The role of political uncertainty. *Journal of Banking & Finance*, *37*(3), 1108-1117.

Granger, C. W. (1969). Investigating causal relations by econometric models and cross-spectral methods. *Econometrica: journal of the Econometric Society*, 424-438.

Granger, C. W., Huangb, B. N., & Yang, C. W. (2000). A bivariate causality between stock prices and exchange rates: evidence from recent Asianflu☆. *The Quarterly Review of Economics and Finance*, *40*(3), 337-354.

Grier, K. (2008). US presidential elections and real GDP growth, 1961–2004. *Public Choice*, *135*(3-4), 337-352.

Gunther, R. (1989). Electoral laws, party systems, and elites: the case of Spain. *The American Political Science Review*, 835-858.

Gyomai, G. & Guidetti, E. (2012, April). OECD System of Composing leading indicators.

Hampton, K. N. (2018). 'Social Media or Social Inequality: Trump's 'Unexpected' Election. *Trump and the Media*, 159-66.

Hashim, N., & El Mosallamy, D. (2020). Presidential elections and stock market: A comparative study. *Journal of Finance and Economics*, *8*(3), 116-126.

Hau, H., Killeen, W., & Moore, M. (2002). The euro as an international currency: explaining puzzling first evidence from the foreign exchange markets. *Journal of International Money and Finance*, 21(3), 351-383.

Helleiner, E. (1995). Explaining the globalization of financial markets: bringing states back in. *Review of International Political Economy*, *2*(2), 315-341.

Hensel, C. R., & Ziemba, W. T. (1995). United States investment returns during Democratic and Republican administrations, 1928–1993. *Financial Analysts Journal*, *51*(2), 61-69.

Herbst, A. F., & Slinkman, C. W. (1984). Political-economic cycles in the US stock market. *Financial Analysts Journal*, *40*(2), 38-44.

Herron, M. C., Lavin, J., Cram, D., & Silver, J. (1999). Measurement of political effects in the United States economy: A study of the 1992 presidential election. *Economics & Politics*, *11*(1), 51-81.

Hibbs Jr, D. A. (1977). Political parties and macroeconomic policy. *The American political science review*, 1467-1487.

Hobbs, G. R., & Riley, W. B. (1984). Profiting from a presidential election. *Financial Analysts Journal*, *40*(2), 46-52.

Howarth, D., & Quaglia, L. (2020). One money, two markets? EMU at twenty and European financial market integration. *Journal of European Integration*, 42(3), 433-448.

Huang, R. D. (1985). Common stock returns and presidential elections. *Financial Analysts Journal*, *41*(2), 58-61.

Hudson, R., Keasey, K., & Dempsey, M. (1998). Share prices under Tory and Labour governments in the UK since 1945. *Applied Financial Economics*, *8*(4), 389-400.

Jandl, S. (2014). *The effect of national elections on the stock market: a comparison between developed OECD countries and emerging markets* (Doctoral dissertation, Univerza v Ljubljani, Ekonomska fakulteta).

Jeronimo, V., Pagan, J. A., & Soydemir, G. (2000). Privatization and European economic and monetary union. *Eastern Economic Journal*, *26*(3), 321-333.

Johnson, R. R., Chittenden, W. T., & Jensen, G. R. (1999). Presidential politics, stocks, bonds, bills, and inflation. *The journal of portfolio management*, *26*(1), 27-31.

Kabiru, J. N., Ochieng, D. E., & Kinyua, H. W. (2015). The effect of general elections on stock returns at the nairobi securities exchange. *European scientific journal*, *11*(28), 435-460.

Kim, H. and J. Mei, 1994, Political risk and stock returns: the case of Hong Kong. New York University Salomon Brothers Working Paper No. 94-30.

Kindleberger, C. P. (2015). *A financial history of Western Europe*. Routledge.

Koijen, R. S., Koulischer, F., Nguyen, B., & Yogo, M. (2016). *Quantitative easing in the euro area: The dynamics of risk exposures and the impact on asset prices* (No. 601).

Koijen, R. S., Koulischer, F., Nguyen, B., & Yogo, M. (2017). Euro-area quantitative easing and portfolio rebalancing. *American Economic Review*, 107(5), 621-27.

Ladrech, R. (1994). Europeanization of domestic politics and institutions: The case of France. *J. Common Mkt. Stud.*, 32, 69.

Laurent, B. (2021). France Politique [Web Log Post]. Retrieved from: https://www.france-politique.fr

Leblang, D., & Mukherjee, B. (2005). Government partisanship, elections, and the stock market: Examining American and British stock returns, 1930–2000. *American Journal of Political Science*, *49*(4), 780-802.

Leston-Bandeira, C. (2009). Dissent in a party-based parliament: The Portuguese case. *Party Politics*, *15*(6), 695-713.

Lindman, S., Tuvhag, T., Jayasekera, R., Uddin, G. S., & Troster, V. (2020). Market Impact on financial market integration: Cross-quantilogram analysis of the global impact of the euro. *Journal of Empirical Finance*, *56*, 42-73.

Liu, A., Paddrik, M., Yang, S. Y., & Zhang, X. (2020). Interbank contagion: An agent-based model approach to endogenously formed networks. *Journal of Banking & Finance*, *112*, 105191.

Lobo, B. J. (1999). Jump risk in the US stock market: Evidence using political information. *Review of Financial Economics*, *8*(2), 149-163.

Lopez, L., & Weber, S. (2017). Testing for Granger causality in panel data. *The Stata Journal*, *17*(4), 972-984.

Luchtenberg, K. F., & Vu, Q. V. (2015). The 2008 financial crisis: Stock market contagion and its determinants. *Research in International Business and Finance*, *33*, 178-203.

Luzarraga-Goitia, J., Regúlez-Castillo, M., & Rodríguez-Castellanos, A. (2021). The dynamics between the stock market and exchange rates: Spain 1999–2015. *The European Journal of Finance*, *27*(7), 655-678.

MacRae, C. D. (1977). A political model of the business cycle. *Journal of political economy*, *85*(2), 239-263.

Mankiw, N. G. (2009). Macroeconomics, *New York, Worth Publishers,* Seventh Edition.

McCallum, B. T. (1978). The political business cycle: An empirical test. *Southern economic journal*, 504-515.

Micossi, S. (2015). The monetary policy of the European Central Bank (2002-2015). *CEPS Special Report*, 109.

Ministere de L' Intérieur (2021). Portail du ministère de l'Intérieur de la République française. Retrieved from https://www.interieur.gouv.fr/Elections/Les-resultats/

Ministerio del Interior. (2021). Consulta de Resultados Electorales. Retrieved from http://www.infoelectoral.mir.es/infoelectoral/min/

Ministero dell'Interno (2021). Dipartimento per gli Affari Interni e Territoriali. Retrieved from https://elezionistorico.interno.gov.it

Mnasri, A., & Essaddam, N. (2021). Impact of US presidential elections on stock markets' volatility: Does incumbent president's party matter?. *Finance Research Letters*, *39*, 101622.

Monroe, B. L. (1995). Fully proportional representation. *American Political Science Review*, *89*(4), 925-940.

Montero, J. R., & Riera, P. (2009). El sistema electoral español: cuestiones de desproporcionalidad y de reforma. *Anuario de la Facultad de Derecho de la Universidad Autónoma de Madrid*, *13*, 225-270.

Moser, R. G., & Scheiner, E. (2004). Mixed electoral systems and electoral system effects: controlled comparison and cross-national analysis. *Electoral studies*, *23*(4), 575-599.

Neto, O. A., & Cox, G. W. (1997). Electoral institutions, cleavage structures, and the number of parties. *American Journal of Political Science*, 149-174.

Niederhoffer, V., Gibbs, S., & Bullock, J. (1970). Presidential elections and the stock market. *Financial Analysts Journal*, 111-113.

Nikkinen, J., Piljak, V., & Äijö, J. (2012). Baltic stock markets and the financial crisis of 2008–2009. *Research in International Business and Finance*, *26*(3), 398-409.

Nilsson, R., & Gyomai, G. (2000, May). OECD System of Leading Indicators. In *Workshop on Key Economic Indicators, Bangkok*.

Nordhaus, W. D. (1975). The political business cycle. *The review of economic studies*, *42*(2), 169-190.

Norris, P. (1997). Choosing electoral systems: proportional, majoritarian and mixed systems. *International political science review*, *18*(3), 297-312.

OECD (2021). Composite leading indicator (CLI) (indicator). doi: 10.1787/4a174487-en (Accessed on 08 January 2021).

Oehler, A., Walker, T. J., & Wendt, S. (2013). Effects of election results on stock price performance: evidence from 1980 to 2008. *Managerial Finance*.

Opare, A. (2012). Effects of general elections on the return and volatility of stocks: the evidence from Europe. Available at SSRN 2224033.

Ordeshook, P. C., & Shvetsova, O. V. (1994). Ethnic heterogeneity, district magnitude, and the number of parties. *American journal of political science*, 100-123.

Ortega, D. F., & Tornero, Á. P. (2009, October). Politics and elections at the Spanish Stock Exchange. In *9th Global Conference on Business & Economics, Cambridge University, UK*.

Pamuk, S. (2004). The evolution of financial institutions in the Ottoman Empire, 1600-1914. *Financial History Review*, *11*(1), 7.

Pantzalis, C., Stangeland, D. A., & Turtle, H. J. (2000). Political elections and the resolution of uncertainty: the international evidence. *Journal of banking & finance*, *24*(10), 1575-1604.

Paramati, S. R., Ummalla, M., & Apergis, N. (2016). The effect of foreign direct investment and stock market growth on clean energy use across a panel of emerging market economies. *Energy Economics*, *56*, 29-41.

Passarelli, G. (2018). Electoral systems in context: Italy. *The oxford handbook of electoral systems*, 851-870.

Ramelli, S., Wagner, A. F., Zeckhauser, R., & Ziegler, A. (2018). *Stock price rewards to climate saints and sinners: Evidence from the Trump election*. National Bureau of Economic Research.

Richards, D. J. (1986). Unanticipated money and the political business cycle. *Journal of Money, Credit and Banking, 18*(4), 447-457.

Riley, W. B., & Luksetich, W. A. (1980). The market prefers republicans: Myth or reality. *Journal of Financial and Quantitative Analysis*, 541-560.

Rometsch, D., & Wessels, W. (Eds.). (1996). *The European Union and member states: towards institutional fusion?* (Vol. 2). Manchester University Press.

Santa-Clara, P., & Valkanov, R. (2003). The presidential puzzle: Political cycles and the stock market. *The Journal of Finance*, *58*(5), 1841-1872.

Schivardi, F., Sette, E., & Tabellini, G. (2017). Credit misallocation during the European financial crisis. *Bank of Italy Temi di Discussione (Working Paper) No, 1139*.

Schmidt, V. A. (1997). European integration and democracy: the differences among member states. *Journal of European Public Policy*, *4*(1), 128-145.

Schmidt, V. A. (1999). European "federalism" and its encroachments on national institutions. *Publius: The Journal of Federalism*, *29*(1), 19-44.

Schmidt, V. A. (2002). Europeanization and the mechanics of economic policy adjustment. *Journal of European Public Policy*, *9*(6), 894-912.

Schmidt, V. A. (2002). The effects of European integration on national forms of governance: reconstructing practices and reconceptualizing democracy. In *Participatory Governance* (pp. 141-176). VS Verlag für Sozialwissenschaften, Wiesbaden.

Schmidt, V. A. (2004). Europeanization of national democracies: the differential impact on simple and compound polities. *Politique européenne*, (2), 115-142.

Siokis, F., & Kapopoulos, P. (2007). Parties, elections and stock market volatility: evidence from a small open economy. *Economics & Politics*, *19*(1), 123-134.

Sisk, T. D. (2017). Elections, Electoral Systems and Party Systems. *International Institute for Democracy and Electoral Assistance*.

Stovall, R. H. (1992). Forecasting stock market performance via the presidential cycle. *Financial Analysts Journal*, 5-8.

Sturm, R. R. (2009). The 'other' January effect and the presidential election cycle. *Applied Financial Economics*, *19*(17), 1355-1363.

Suriani, S., Kumar, M. D., Jamil, F., & Muneer, S. (2015). Impact of exchange rate on stock market. *International Journal of Economics and Financial Issues*, *5*(1S).

Texte intégral de la Constitution du 4 octobre 1958 en vigueur. French conseil constitutional. Consulted on 19th January 2021. Available on https://www.conseil-constitutionnel.fr/le-bloc-de-constitutionnalite/texte-integral-de-la-constitution-du-4-octobre-1958-en-vigueur

Thornton, D. L., & Batten, D. S. (1984). *Lag length selection and Granger causality*. Federal reserve bank of St. Louis.

Tufte, E. R. (1978). *Political control of the economy*. Princeton University Press.

Vuchelen, J. (2003). Electoral systems and the effects of political events on the stock market: The Belgian case. *Economics & Politics*, *15*(1), 85-102.

Wagner, A. F., Zeckhauser, R. J., & Ziegler, A. (2018). Company stock price reactions to the 2016 election shock: Trump, taxes, and trade. *Journal of Financial Economics*, *130*(2), 428-451.

Wong, W. K., & McAleer, M. (2009). Mapping the Presidential Election Cycle in US stock markets. *Mathematics and Computers in Simulation*, *79*(11), 3267-3277.

Worthington, A. C. (2009). Political cycles in the Australian stock market since Federation. *Australian Economic Review*, 42(4), 397-409.

Wyplosz, C. (2013). Non-Standard Monetary Policy Measures-An Update. *Non-Standard Monetary Policy Measures-An Update*, 7.

Yang, H. F., Liu, C. L., & Chou, R. Y. (2020). Bank diversification and systemic risk. The *Quarterly Review of Economics and Finance, 77*, 311-326.

Yuval, F., & Herne, K. (2005). Sophisticated behavior under majoritarian and non-majoritarian voting procedures. *Political Behavior*, *27*(3), 217-237.

Zhao, X., Liano, K., & Hardin III, W. G. (2004). Presidential Election Cycles and the Turn-of-the-Month Effect. *Social science quarterly*, *85*(4), 958-973.

Zhu, B., Ma, S., Xie, R., Chevallier, J., & Wei, Y. M. (2018). Hilbert spectra and empirical mode decomposition: A multiscale event analysis method to detect the impact of economic crises on the European carbon market. *Computational Economics, 52*(1), 105-121.

Appendix

Appendix 1: Right-wing government question when a coalition is formed

Table 14 - Regression results without considering any lag in right-wing

	Portugal	Spain	France	Italy
c value	-0.17	-0.42	-0.02	0.49
	(-0.11)	(-0.42)	(-0.03)	(-0.85)
Dollar exchange rate (DDOLt)	0.30*	0.29**	0.37***	0.23
	(1.70)	(2.54)	(3.90)	(1.47)
% change in the reference market (IS&Pt)	0.76***	1.01***	0.97***	0.86***
	(6.19)	(11.27)	(13.64)	(8.51)
Long-term interest rate (IRt)	-0.026**	-0.071***	-0.04*	-0.052***
	(-2.07)	(-5.33)	(-1.78)	(-3.56)
Composite Leading Indicator (CLIt)	2.78***	0.43	2.87***	3.34***
	(3.10)	(0.46)	(3.69)	(2.93)
Elections (ELECt-1)	6.09	-5.59	-3.02	-4.82
	(0.97)	(-1.55)	(-0.76)	(-1.08)
Left (Lt)	1.91	-2.67	7.90**	-2.57
	(0.52)	(-0.93)	(1.98)	(-0.61)
Right (Rt)	4.13	-5.31*	-0.99	1.18
	(0.65)	(-1.69)	(-0.30)	(0.28)
Center (Ct)			-2.52	
			(-0.45)	
Independent (It)				-0.82
				(-0.21)
Euro (EURt)	-0.57	0.37	0.03	-0.94
	(-0.29)	(0.27)	(0.03)	(-0.54)
Euro * Elections (EURt * ELECt-1)	-7.69	3.80	-1.88	4.88
	(-0.94)	(0.76)	(-0.37)	(0.67)
Financial Crisis (cris_fint)	-1.89	-0.61	-2.07	-2.05
	(-0.84)	(-0.35)	(-1.44)	(-1.09)
Financial Crisis * Elections (cris_fint * ELECt-1)	-1.97	-9.78	6.66	-1.38
	(-0.24)	(-1.57)	(1.00)	(-0.18)
R²	0.52	0.69	0.74	0.65
R² adjusted	0.47	0.66	0.72	0.60
White Test (Heteroscedasticity)	0.7125	0.9523	0.2406	0.9706
Breusch-Godfrey Test (Autocorrelation)	0.5928	0.1653	0.3376	0.5532
Durbin-Watson (DW)	2.25	2.26	2.28	2.27
n	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the election of a government (L, R, I, or C) are 1 when the government is elected. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

Appendix 2: Right-wing government question when we consider the period that a party leads the country's destinations

Table 15 - Regression results without considering any lag in right-wing government when a party is in power

	Portugal	Spain	France	Italy
c value	-0.92	-0.94	-0.05	-0.84
	(-0.48)	(-0.75)	(-0.02)	(-0.43)
Dollar exchange rate (DDOL$_t$)	0.30*	0.27**	0.41***	0.22
	(1.69)	(2.40)	(4.38)	(1.48)
% change in the reference market (IS&P$_t$)	0.77***	0.99***	0.97***	0.87***
	(6.39)	(11.03)	(13.40)	(8.64)
Long-term interest rate (IR$_t$)	-0.026**	-0.07***	-0.044*	-0.053***
	(-2.11)	(-5.20)	(-1.91)	(-3.54)
Composite Leading Indicator (CLI$_t$)	2.72***	0.87	2.97***	3.17***
	(3.04)	(0.95)	(3.75)	(2.78)
Elections (ELEC$_{t-1}$)	5.53	-5.13	-3.32	-4.96
	(0.88)	(-1.42)	(-0.83)	(-1.11)
Left (LP$_t$)	1.29	0.54	-0.37	1.81
	(0.88)	(0.44)	(-0.18)	(0.93)
Right (RP$_t$)			0.70	1.38
			(0.34)	(0.65)
Euro (EUR$_t$)	-0.37	0.20	-0.26	-1.08
	(-0.19)	(0.14)	(-0.21)	(0.63)
Elections * Euro (ELEC$_{t-1}$ * EUR$_t$)	-7.41	3.97	-1.64	5.20
	(-0.91)	(0.79)	(-0.32)	(0.74)
Financial Crisis (cris_fin$_t$)	-1.86	-0.62	-1.87	-1.81
	(-0.83)	(-0.35)	(-1.25)	(-0.95)
Financial Crisis * Elections (cris_fin$_t$ * ELEC$_{t-1}$)	-1.74	-9.09	7.18	-2.02
	(-0.21)	(-1.45)	(1.06)	(-0.27)
R²	0.52	0.68	0.74	0.65
R² adjusted	0.47	0.65	0.71	0.61
White Test (Heteroscedasticity)	0.6742	0.8829	0.0899	0.9582
Breusch-Godfrey Test (Autocorrelation)	0.5428	0.1962	0.3663	0.5119
Durbin-Watson (DW)	2.25	2.27	2.31	2.28
n	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the parties (LP, RP, IP, or CP) are 1 when the government of that political ideology is running the country. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

Appendix 3: Variable eur_b, since 1994, instead of eur that starts in 2002 when a coalition is formed for Spain and France

Table 16 - Regression results when Euro begins in 1994 when a coalition is formed

	Spain	France
c value	-1.06	0.19
	(-0.70)	(0.17)
Dollar exchange rate (DDOL$_t$)	0.26**	0.37***
	(2.29)	(3.99)
% change in the reference market (IS&P$_t$)	1.00***	0.98***
	(11.15)	(13.97)
Long-term interest rate (IR$_t$)	-0.072***	-0.039*
	(-5.33)	(-1.72)
Composite Leading Indicator (CLI$_t$)	0.67	2.60***
	(0.72)	(3.34)
Elections (ELEC$_{t-1}$)	-6.85	2.96
	(-1.34)	(0.53)
Euro (EUR_B$_t$)	0.78	-0.31
	(0.46)	(-0.23)
Elections * Euro (ELEC$_{t-1}$ * EUR_B$_t$)	8.05	-2.33
	(1.19)	(-0.30)
Left (L$_t$)	-2.20	7.87**
	(-0.76)	(1.99)
Right (R$_{t-1}$)	-5.10	-8.70
	(-1.02)	(-1.40)
Center (C$_t$)		-2.28
		(-0.42)
Financial Crisis (cris_fin$_t$)	-0.59	-1.98
	(-0.36)	(-1.53)
Financial Crisis * Elections (cris_fin$_t$ * ELEC$_{t-1}$)	-9.54	1.05
	(-1.60)	(0.13)
R²	0.68	0.75
R² adjusted	0.65	0.73
White Test (Heteroscedasticity)	0.9609	0.4230
Breusch-Godfrey Test (Autocorrelation)	0.2060	0.2868
Durbin-Watson (DW)	2.27	2.31
n	128	128

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the election of a government (L, R, or C) are 1 when the government is elected. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

Appendix 4: Variable eur_b, since 1994, instead of eur that starts in 2002 when it is considered the period that a party leads the country's destinations

Table 17 - Regression results when Euro begins in 1994 when a party is in power

	Spain	France
c value	-1.12	-1.89
	(-0.28)	(-0.28)
Dollar exchange rate (DDOL$_t$)	0.28**	0.40***
	(2.47)	(4.37)
% change in the reference market (IS&P$_t$)	1.00***	0.99***
	(11.10)	(13.76)
Long-term interest rate (IR$_t$)	-0.069***	-0.04*
	(-5.17)	(-1.74)
Composite Leading Indicator (CLI$_t$)	0.78	2.80***
	(0.84)	(3.47)
Left (LP$_t$)	-0.13	2.40
	(-0.04)	(0.36)
Right (RP$_{t-1}$)	-1.56	4.69
	(-0.41)	(0.72)
Center (CP$_t$)		3.78
		(0.58)
Elections (ELEC$_{t-1}$)	-6.62	2.33
	(-1.30)	(0.41)
Euro (EUR_B$_t$)	1.79	-2.27
	(0.93)	(-1.39)
Elections * Euro (ELEC$_t$ * EUR_B$_t$)	4.60	-7.33
	(0.79)	(-1.13)
Financial Crisis (cris_fin$_t$)	-1.06	-1.79
	(-0.62)	(-1.36)
Financial Crisis * Elections (cris_fin$_t$ * ELEC$_{t-1}$)	-9.04	3.56
	(-1.46)	(0.34)
R²	0.68	0.75
R² adjusted	0.65	0.72
White Teste (Heteroscedasticity)	0.9415	0.1021
Breusch-Godfrey Test (Autocorrelation)	0.2672	0.0974
Durbin-Watson (DW)	2.28	2.43
n	128	128

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the parties (LP, RP, or CP) are 1 when the government of that political ideology is running the country. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

Appendix 5: Expected and unexpected elections when a coalition is formed for Portugal, Spain, and Italy

Table 18 - Regression results with expected and unexpected elections when a coalition is formed

	Portugal	Spain	Italy
c value	-0.22	-0.54	0.55
	(-0.14)	(-0.54)	(0.40)
Dollar exchange rate (DDOL$_t$)	0.33*	0.27**	0.21
	(1.76)	(2.32)	(1.34)
% change in the reference market (IS&P$_t$)	0.78***	1.00***	0.86***
	(6.22)	(10.95)	(8.30)
Long-term interest rate (IR$_t$)	-0.023*	-0.07***	-0.053***
	(-1.92)	(-5.17)	(-3.59)
Composite Leading Indicator (CLI$_t$)	2.89***	0.71	3.38***
	(3.16)	(0.75)	(2.95)
Expected Elections (elecexp$_{t-1}$)	6.11	-3.98	-5.97
	(0.97)	(-0.73)	(-0.94)
Unexpected Elections (elecunexp$_{t-1}$)	6.59	-4.75	-2.35
	(0.49)	(-1.07)	(-0.51)
Euro (EUR$_t$)	-0.44	0.21	-0.99
	(-0.22)	(0.15)	(-0.58)
Elections * Euro (ELEC$_{t-1}$ * EUR$_t$)	-10.41	3.79	6.15
	(-1.04)	(0.73)	(0.72)
Left (L$_t$)	1.68	-2.30	-2.67
	(0.45)	(-0.79)	(-0.63)
Right (R$_{t-1}$)	7.27	-1.57	-1.04
	(0.61)	(-0.36)	(-0.20)
Independent (I$_t$)			-0.85
			(-0.21)
Financial Crisis (cris_fin$_t$)	-1.83	-0.55	-1.86
	(-0.81)	(-0.31)	(-0.98)
Financial Crisis * Elections (cris_fin$_t$ * ELEC$_{t-1}$)	-3.48	-9.43	-4.11
	(-0.38)	(-1.49)	(-0.44)
R²	0.52	0.68	0.65
R² adjusted	0.46	0.64	0.60
White Test (Heteroscedasticity)	0.6166	0.9584	0.9821
Breusch-Godfrey Test (Autocorrelation)	0.4999	0.2054	0.5131
Durbin-Watson (DW)	2.24	2.26	2.30
n	108	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the election of a government (L, R, I, or C) are 1 when the government is elected. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

Appendix 6: Expected and unexpected elections for Portugal, Spain, and Italy when it is considered the period that a party leads the country's destinations

Table 19 - Regression results with expected and unexpected elections when we consider all the time that a party is in power

	Portugal	Spain	Italy
c value	1.05	2.96	1.80
	(0.18)	(0.64)	(0.49)
Dollar exchange rate (DDOL$_t$)	0.31*	0.28**	0.21
	(1.69)	(2.43)	(1.31)
% change in the reference market (IS&P$_t$)	0.79***	0.99***	0.87***
	(6.36)	(10.96)	(8.52)
Long-term interest rate (IR$_t$)	-0.026**	-0.07***	-0.053***
	(-2.08)	(-5.19)	(-3.50)
Composite Leading Indicator (CLI$_t$)	2.81***	0.89	3.20***
	(3.05)	(0.96)	(2.77)
Expected elections (elecexp$_{t-1}$)	6.51	-3.81	-6.24
	(0.95)	(-0.76)	(-1.01)
Unexpected Elections (elecunexp$_{t-1}$)	11.05	-6.92	-3.74
	(1.03)	(-1.63)	(-0.78)
Euro (EUR$_t$)	-0.33	0.35	-0.94
	(-0.16)	(0.24)	(-0.55)
Elections * Euro (ELEC$_{t-1}$ * EUR$_t$)	-10.54	5.13	6.39
	(-1.02)	(0.95)	(0.77)
Left (LP$_t$)	-0.64	-3.25	-0.85
	(-0.11)	(-0.72)	(-0.24)
Right (RP$_{t-1}$)	-2.24	-4.08	-1.57
	(-0.39)	(-0.88)	(-0.45)
Independent (IP$_t$)			-2.61
			(-0.73)
Financial Crisis (cris_fin$_t$)	-1.85	-0.78	-1.58
	(-0.82)	(-0.43)	(-0.82)
Financial Crisis * Elections (cris_fin$_t$ * ELEC$_{t-1}$)	-2.90	-11.96*	-5.15
	(-0.28)	(-1.68)	(-0.62)
R²	0.52	0.68	0.65
R² adjusted	0.46	0.64	0.60
White Test (Heteroscedasticity)	0.6737	0.9157	0.9772
Breusch-Godfrey Test (Autocorrelation)	0.3771	0.3029	0.4527
Durbin-Watson (DW)	2.27	2.25	2.31
n	108	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the parties (LP, RP, IP, or CP) are 1 when the government of that political ideology is running the country. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

Appendix 7: Variable Elections with and without lag when a coalition is formed

Table 20 - Regression results considering the variable elections with and without lag when a coalition is formed

	Portugal	Spain	France	Italy
c value	-0.26	-0.42	-0.03	0.39
	(-0.17)	(-0.43)	(-0.04)	(0.28)
Dollar exchange rate (DDOL$_t$)	0.33*	0.29**	0.37***	0.23
	(1.83)	(2.51)	(3.91)	(1.49)
% change in the reference market (IS&P$_t$)	0.78***	1.02***	0.98***	0.87***
	(6.25)	(11.22)	(13.84)	(8.48)
Long-term interest rate (IR$_t$)	-0.026**	-0.071***	-0.041*	-0.052***
	(-2.03)	(-5.29)	(-1.82)	(-3.56)
Composite Leading Indicator (CLI$_t$)	2.90***	0.43	2.58***	3.36***
	(3.20)	(0.45)	(3.30)	(2.94)
Elections (ELEC$_t$)	4.19	-5.32*	-1.10	2.28
	(0.65)	(-1.69)	(-0.34)	(0.62)
Elections (ELEC$_{t-1}$)	6.02	-4.77	1.96	-5.86
	(0.96)	(-1.13)	(0.42)	(-0.93)
Euro (EUR$_t$)	-0.52	0.38	0.06	-0.90
	(-0.26)	(0.26)	(0.06)	(-0.52)
Elections * Euro (ELEC$_{t-1}$ * EUR$_t$)	-9.96	3.78	-0.24	5.92
	(-1.17)	(0.75)	(-0.05)	(0.70)
Left (L$_t$)	-2.46	2.64	9.08*	-4.79
	(-0.34)	(0.64)	(1.77)	(-0.87)
Right (R$_{t-1}$)	7.68	-1.60	-10.01*	1.76
	(0.92)	(-0.37)	(-1.97)	(0.26)
Center (C$_t$)			-1.37	
			(-0.22)	
Independent (I$_t$)				-0.77
				(-0.19)
Financial Crisis (cris_fint)	-1.88	-0.61	-2.12	-2.05
	(-0.84)	(-0.35)	(-1.50)	(-1.09)
Financial Crisis * Elections (cris_fint * ELEC$_{t-1}$)	-3.51	-9.80	-0.14	-2.19
	(-0.42)	(-1.57)	(-0.02)	(-0.26)
R²	0.53	0.69	0.75	0.65
R² adjusted	0.47	0.65	0.72	0.60
White Test (Heteroscedasticity)	0.7013	0.9432	0.2243	0.9760
Breusch-Godfrey Test (Autocorrelation)	0.5000	0.1601	0.3455	0.5763
Durbin-Watson (DW)	2.25	2.26	2.29	2.26
n	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the government (L, R, I, or C) are 1 when the government is elected. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

Appendix 8: Variable Elections with and without lag when it is considered the period that a party leads the country's destinations

Table 21 - Regression results considering the variable elections with and without lag when a party is in power

	Portugal	Spain	France	Italy
c value	2.27	2.08	-13.05***	1.49
	(0.47)	(0.51)	(-4.86)	(0.43)
Dollar exchange rate (DDOLt)	0.32*	0.28**	0.41***	0.22
	(1.74)	(2.51)	(4.27)	(1.42)
% change in the reference market (IS&Pt)	0.77***	1.01***	0.99***	0.87***
	(6.22)	(11.21)	(11.96)	(8.54)
Long-term interest rate (IRt)	-0.027**	-0.072***	-0.043**	-0.052***
	(-2.18)	(-5.37)	(-2.43)	(-3.46)
Composite Leading Indicator (CLIt)	2.72***	0.44	2.64***	3.16***
	(3.03)	(0.47)	(3.00)	(2.74)
Elections (ELECt)	2.38	-4.00*	1.89	0.14
	(0.74)	(-1.81)	(0.59)	(0.05)
Elections (ELECt-1)	7.27	-6.33*	3.58**	-5.23
	(1.09)	(-1.69)	(2.28)	(-1.13)
Euro (EURt)	-0.39	0.60	-0.31	-1.02
	(-0.20)	(0.42)	(-0.32)	(-0.59)
Elections * Euro (ELECt-1 * EURt)	-7.66	5.13	-8.44**	5.37
	(-0.93)	(0.96)	(-2.31)	(0.75)
Left (LPt)	-2.00	-2.12	12.37***	-0.53
	(-0.42)	(-0.54)	(5.63)	(-0.16)
Right (RPt-1)	-3.56	-2.99	13.72***	-1.08
	(-0.75)	(-0.75)	(5.57)	(-0.34)
Center (CPt)			12.91***	
			(6.36)	
Independent (IPt)				-2.26
				(-0.67)
Financial Crisis (cris_fint)	-1.85	-0.91	-1.91	-1.82
	(-0.82)	(-0.51)	(-1.45)	(-0.94)
Financial Crisis * Elections (cris_fin * ELECt-1)	-4.73	-11.71*	-6.57*	-1.87
	(-0.51)	(-1.71)	(-1.74)	(-0.24)
R²	0.53	0.69	0.74	0.65
R² adjusted	0.47	0.65	0.71	0.60
White Test (Heteroscedasticity)	0.6555	0.9272	0.0290[7]	0.9840
Breusch-Godfrey Test (Autocorrelation)	0.5373	0.2654	0.1199	0.5023
Durbin-Watson (DW)	2.24	2.24	2.42	2.28
n	108	128	128	108

The t-ratios are in parenthesis; R² is the coefficient of determination; R² adj. is the coefficient of determination adjusted for degrees of freedom; DW is the Durbin–Watson autocorrelation coefficient and n is the number of observations. The Dummy variables representing the parties (LP, RP, IP, or CP) are 1 when the government of that political ideology is running the country. The values presented in the Test of Heteroscedasticity of White and the test of Autocorrelation of Breusch-Godfrey are the p-values. The *, **, and *** means that the variable was statistically significant, respectively, at 10%, 5%, and 1% levels.

---

[7] Corrected by the Newey-West estimator, which has impact in the results and in the variables that are statistically significant

Appendix 9: Portuguese Legislative Result Elections

Figure 1 - Portuguese Legislative Result Elections

Electoral Results for Portugal: Percentage (Nº deputies)

	PS	PSD	CDU	CDS	BE	PRD	PAN	CHEGA	IL	LIVRE	PSN	PaF (PSD + CDS)	Left Diputies	Right-Deputies	Center-Deputies	Government
19 july 1987	22,24% (60)	50,22% (148)	12,14% (31)	4,44% (4)		4,91% (7)							98	152	0	Right-wing
6 october 1991	29,13% (72)	50,60% (135)	8,80% (17)	4,43% (5)							1,68% (1)		89	140	1	Right-wing
1 october 1995	43,76% (112)	34,12% (88)	8,57% (15)	9,05% (15)									127	103	0	Left-wing
10 october 1999	44,06% (115)	32,32% (81)	8,99% (17)	8,34% (15)	2,44% (2)								134	96	0	Left-wing
17 march 2002	37,79% (96)	40,21% (105)	6,94% (12)	8,72% (14)	2,81% (3)								111	119	0	Right-wing
20 february 2005	45,03% (121)	28,77% (75)	7,54% (14)	7,24% (12)	6,35% (8)								143	87	0	Left-wing
27 september 2009	36,55% (97)	29,11% (81)	7,86% (15)	10,43% (21)	9,82% (16)								128	102	0	Left-wing
5 june 2011	28,06% (74)	38,65% (108)	7,91% (16)	11,70% (24)	5,17% (8)								98	132	0	Right-wing
4 october 2015	32,31% (86)		8,25% (17)		10,19% (19)		1,39% (1)					38,5% (107)	122	107	1	Left-wing
6 october 2019	36,34% (108)	27,76% (79)	6,33% (12)	4,22% (5)	9,52% (19)		3,32% (4)	1,29% (1)	1,29% (1)	1,09% (1)			140	86	4	Left-wing

Data collected on "Comissão Nacional de Eleições": https://www.cne.pt/content/eleicoes-referendos

Left-Wing	6
Right-Wing	4

Appendix 10: Spanish Legislative Result Elections

Figure 2 - Spanish Legislative Result Elections

Electoral Results for Spain: Percentage (Nº deputies)

	PSOE	PP	CDS	CiU/DiL/CDC/JxC	IU/IU-LV	PNV	Más País	ERC/ICV	UPyD	C's	UP+confluences	VOX	Left-Wing Diputies	Right-Wing Diputies	Center Diputies	Government
22 june 1986	44,06% (184)	25,97% (105)	9,22% (19)	5,02% (18)	4,63% (7)	1,53% (6)							198	126	26	Left-Wing
29 october 1989	39,60% (175)	25,79% (107)	7,89% (14)	5,04% (18)	9,07% (17)	1,24% (5)							200	131	19	Left-Wing
6 june 1993	38,78% (159)	34,76% (141)		4,94% (17)	9,55% (18)	1,24% (5)							181	164	5	Left-Wing
3 march 1996	37,63% (141)	38,79% (156)		4,60% (16)	10,54% (21)	1,27% (5)		0,67% (1)					168	177	5	Right-Wing
12 march 2000	34,16% (125)	44,52% (183)		4,19% (15)	5,45% (8)	1,53% (7)		0,84% (1)					141	202	7	Right-Wing
14 march 2004	42,59% (164)	37,71% (148)		3,23% (10)	4,96% (5)	1,63% (7)		2,52% (8)					181	161	8	Left-Wing
9 march 2008	43,64% (169)	40,11% (154)		3,03% (10)	3,80% (2)	1,19% (6)		1,16% (3)					176	166	8	Left-Wing
20 november 2011	28,76% (110)	44,63% (186)		4,17% (16)	6,92% (11)	1,33% (5)		1,05% (3)	4,70% (5)				140	205	5	Right-Wing
20 december 2015	22,00% (90)	28,71% (123)		2,25% (8)	3,68% (2)	1,20% (6)		2,39% (9)		13,94% (40)	20,66% (69)		172	172	6	Right-Wing
26 june 2016	22,63% (85)	33,01% (137)		2,01% (8)		1,19% (5)		2,63% (9)		13,06% (32)	21,15% (71)		167	178	5	Right-Wing
26 june 2016	22,63% (85)	33,01% (137)		2,01% (8)		1,19% (5)		2,63% (9)		13,06% (32)	21,15% (71)		167	178	5	Left-Wing
28 april 2019	28,67% (123)	16,69% (66)		1,91% (7)		1,51% (6)		3,89% (15)		15,86% (57)	14,98% (43)	10,26% (24)	185	158	7	Left-Wing
10 november 2019	28,00% (122)	20,82% (82)		2,19% (8)		1,57% (6)	2,40% (2)	3,61% (13)		6,79% (8)	12,84% (32)	15,09% (47)	179	163	8	Left-Wing

Data collected on "Ministerio del Interior":	http://www.infoelectoral.mir.es/infoelectoral/min/							Left-Wing	8
								Right-Wing	5

Note: Despite the left-wing parties are in minority in terms of the number of deputies with the 26th of June 2016 elections, it could come to power on the 1st of June 2018 with a successful censure motion that was supported by some independentist parties that are ideologically right-wing.

Appendix 11: France Presidential Result Elections

Figure 3 - France Presidential Result Elections with 1st and 2nd round

France (Presidential Election with first and second round):

	Round	UDF / MoDem	PS	PCF/LF/FI	LO	FN	VEC	MDC	EM	UMP / LR / RCR	Government
26 april 1981	1	28,32%	25,85%	15,35%						18,00%	
10 may 1981	2	48,24%	51,76%								Left-Wing
24 april 1988	1	16,55%	34,10%	6,76%		14,39%	6,76%			19,94%	
8 may 1988	2		54,02%							45,98%	Left-Wing
23 april 1995	1	18,58%	23,30%	8,64%	5,30%	15,00%				20,84%	
7 may 1995	2		47,36%							52,64%	Right-Wing
21 april 2002	1	6,84%	16,18%		5,72%	16,86%	5,25%	5,33%		19,88%	
5 may 2002	2					17,79%				82,21%	Right-Wing
22 april 2007	1	18,57%	25,87%			10,44%				31,18%	
6 may 2007	2		46,94%							53,06%	Right-Wing
22 april 2012	1	9,13%	28,63%	11,10%		17,90%				27,18%	
6 may 2012	2		51,64%							48,36%	Left-Wing
23 april 2017	1		6,36%	19,58%		21,30%			24,01%	20,01%	
7 may 2017	2					33,90%			66,10%		Centre
									Left-Wing		3
									Right-Wing		3
									Centre		1

Appendix 12: France Legislative Result Elections and Deputies

Figure 4 - France Legislative Result Elections

France (Legislative Results by political orientation and deputies):

	Right-Wing	Left-Wing	National Front	Left Front	Centre		Right-Wing Deputies	Left-Wing Deputies	Alt-Right Deputies	Center Deputies	Government
1986	44,84%	42,45%	9,65%				290	248	35	0	Right-Wing
1988	46,85%	52,10%	1,07%				271	303	1	0	Left-Wing
1993	58,01%	35,81%	5,90%				485	91	1	0	Right-Wing
1997	46,02%	47,79%	5,64%				253	320	1	3	Left-Wing
2002	52,76%	45,13%	1,85%				399	177	0	1	Right-Wing
2007	49,65%	49,10%	0,08%				345	227	0	5	Right-Wing
2012	44,12%	49,93%	3,66%	1,08%			229	341	3	2	Left-Wing
2017	26,95%	7,49%	8,75%	6,06%	49,11%		136	73	10	358	Centre

Data collected on "Ministére de l'Interiour" and "France Politique"

https://www.france-politique.fr

https://www.interieur.gouv.fr/Elections/Les-resultats/

Right-Wing	4
Left-Wing	3
Centre	1

Appendix 13: Italian Legislative Result Elections

Figure 5 - Italian Legislative Result Elections

Electoral Results for Italy: Percentage (Nº deputies)

		CD/PPI/CCD/UDC	PCI/PDS/DS/PD	PSI	MSI/AN	PRI	LN/LN-MpA/Lega	PRC/SEL/LeU	FI/PdL	PS	RI	PPI+UD+PRI+SVP	DL	IdV	M5S	FdI	SC
1	14 june 1987	34,31% (234)	26,58% (177)	14,26% (94)	5,91% (35)	3,70% (21)											
	5 april 1992	29,66% (206)	16,11% (107)	13,62% (92)	5,37% (34)	4,39% (27)	8,65% (55)	5,62% (35)									
2	27 march 1994	11,07% (33)	20,36% (124)	2,19% (14)	13,47% (110)		8,36% (118)	6,05% (38)	21,01% (132)	4,68% (13)							
	21 april 1996	5,84% (30)	21,06% (172)		15,66% (93)		10,07% (59)	8,57% (35)	20,57% (123)		4,34% (26)	6,81% (72)					
	13 may 2001	3,22% (40)	16,57% (136)		12,02% (99)		3,94% (30)	5,03% (11)	29,43% (194)				14,52% (83)				
3	10 april 2006	6,76% (39)	31,27% (226)		12,34% (72)		4,58% (26)	5,84% (41)	23,72% (140)					2,30% (17)			
	14 april 2008	5,62% (36)	33,18% (217)				8,30% (60)		37,38% (276)					4,37% (29)			
	25 february 2013		25,43% (297)				4,09% (18)	3,20% (37)	21,56% (98)						25,56% (109)		8,30% (39)
4	4 march 2018		18,76% (112)				17,35% (125)	3,38% (14)	14,00% (104)						32,68% (227)	4,35% (32)	

Data collected on "Ministerio dell'Interno":   https://elezionistorico.interno.gov.it

Left-Wing Deputies	Right-Wing Deputies	M5S Deputies	Centre Deputies	Others	Goverments:
305	68	0	251	6	3 prime-ministers (Centre)
262	140	0	222	6	2 prime-ministers (Left-Wing + independent)
246	339	0	40	5	2 prime-ministers (Right-Wing + Independent)
320	275	0	30	5	3 prime-ministers (Left-Wing)
261	328	0	40	1	1 prime-minister (Right-Wing)
348	238	0	43	1	1 prime-minister (Left-Wing)
249	344	0	36	1	2 prime-ministers (Right-Wing + independent)
345	125	109	47	2	3 prime-ministers (Left-Wing)
136	265	227	0	2	1 prime-minister (Independent)

		Left-Wing			8
		Right-Wing			3
		Centre			3
		Independent			4

FACULDADE DE **ECONOMIA**