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Political premiums and election cycles in the UK stock market, 1965-2008

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PREFACE AND ACKNOWLEDGEMENTS

With this master thesis about the interaction between politics and the stock market in the United Kingdom, I attempt to obtain my master's degree in Economics & Business. Before continuing to my research, I would like to thank those who have helped me to complete my study and this thesis.

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A personal and special word of thanks goes to my parents, who have always supported me and my choices, even though they might not always have agreed with me. Without their unconditional love, support and encouragement I could have never followed the path of my choice. Thank you, mum and dad.

Also, I would like to thank my friends for their contribution to an unforgettable study time and their never ending interest in my study progress. Without intending to forget others, I would like to thank one of them in person. Tommy van Lent has not only been a true friend throughout the years, but since our study paths have led us together to Maastricht, Utrecht and Rotterdam, I do not exaggerate when I say that he has been an important factor in both starting and completing my studies. Working and studying together with him has always been a pleasure, both inside and outside the lecture rooms. Thank you for that, Tom.

Maarten Ackermans

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ABSTRACT

This thesis analyses British stock market returns between 1965 and 2008, by testing two theories that describe the interaction between economics and politics: the political policy theory and the political business cycle theory. Despite that (both nominal and excess) stock market returns were higher in times of Conservative Party dominance, a political premium was found for times of a Labour government: corrected for economic variables that help to explain excess returns, the stock market performs better under a Labour administration and this outperformance is statistically significant. Furthermore, in UK stock market returns no election cycle was found. Since inflation rates do show a cyclical pattern that follows election dates, the political business cycle theory is not rejected: these outcomes just show that the stock market is too efficient to be 'fooled' by a government aiming for re-election in its economic policy.

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CHAPTER 1: Introduction

The interface between economics and politics is very extensive and the link between politics and the economy is undeniable. Everyday examples of the way politicians (the government) influence the economy are through tax regulation, interest rate policy[1] or awarding subsidies. Usually, a government uses these tools to achieve its goals in terms of price stability (inflation) or economic activity (employment). But, how do politicians affect the stock market?

Many researchers have already investigated the relation between politics and the stock market in the United States. For other countries - like Germany, The Netherlands and the United Kingdom – there has also been some research, but not as extensive as for the United States. This paper will focus on the interaction between politics and financial markets in the United Kingdom.

Aim

In this thesis, I will try two answer two main questions concerning politics and the stock market in the United Kingdom:

- Is there a difference between the (excess) stock returns under Labour and Conservative governments?
- Is there an election cycle in stock returns?

Relevance

Worldwide, politicians claim superiority of their policies over those of their political opponents. The economy is one of the fields most subject to different political convictions and policies: in every general elections economic policy is a main theme for which all parties pretend to know 'the truth'. By analyzing stock market data over more than 40 years in a neutral way, this thesis can contribute to this question. Of course, 'the stock market' is not the same as 'the economy'. But, since the stock market can been seen as a reflection of the country's businesses, the connection is distinct.

[1] In many (developed) economies, the interest rate policy is a task of an independent central bank. But, in other countries the government can still use the interest rate as a policy instrument.

Also, if it would be shown that UK stock markets are influenced by the political orientation of the government or by an election cycle, then this would provide new useful information about the dynamics behind the UK stock returns. May there be a causal link between stock market returns and the political conviction of the government this could be concerned as a new anomaly. The possible existence of an election cycle is not only interesting from a social or political point of view, but – if it actually exists – this would be useful investor information as well.

The most important conclusions of my thesis are the following. In nominal terms, the stock market performs better in times of Conservative governments than in times of Labour governments. Also, the cost of capital (interest rate) is higher in times of Conservative dominance, but this difference is smaller than the difference in nominal returns. So, excess returns are on average higher in times of a Tory Prime Minister. But when these results are corrected for economic circumstances, the market seems to pay a positive premium in times of a Labour government. So, despite that nominal and excess returns are higher in times of a Conservative government, the stock market consistently outperforms the expectations in times of a Labour government: a Labour 'surprise' premium was found. Furthermore, no election cycle was found in stock market returns. This can be explained by the efficiency of the stock market: the stock market can not be fooled by politicians that strive for prolongation of their power. That governments do try to manipulate the electorate by their policy was nonetheless not rejected, for other economic variables (such as the inflation rate) do show a cyclical pattern.

Structure

The remainder of this thesis is organized as follows. In chapter 2, a description of British politics will be provided. Chapter 3 describes the economic theories that will be used in this thesis, while Chapter 4 summarizes previous literature on the two research questions. In Chapter 5 I will clarify on the selected data and explain the methodology that will be used. The actual data analysis starts in Chapter 6, in which I will look at nominal stock market returns. Chapter 7 will convert the data from nominal to excess returns and in Chapter 8 the analysis of the stock market returns will be finished with the addition of several control variables. In Chapter 9 the election cycle will be investigated, after which the thesis will be concluded in Chapter 10 by summarizing all results and conclusions, as well as the suggestions for future research.

CHAPTER 2: British politics

Before analyzing stock market returns, and linking those to political factors, it is important to answer some questions about British politics, and elections. The two traditional superpowers in British politics are the Conservative Party and the Labour Party. Despite the fact that the United Kingdom has a multiparty system since World War II it has always been one of the two major parties that won general elections and therefore formed the government.[2] The Conservative Party is traditionally regarded as right-wing, Labour can be considered as the established left-wing party. This contrast will be the focus of the first main question, which will test the political policy theory. According to this theory, which will be illustrated in the next chapter, different policies have different impacts on the economy. Here, the economy will be 'represented' by the stock market.

To compare Labour and Conservative over time, and link them to theorem about the economics of left- and right-wing politics, a simplifying assumption has to be made. If we compare stock market returns under Labour and Conservative over a multiple decade timeframe, we implicitly assume that Labour and Conservative are still the same parties they were 40 years ago. It is tempting to question this assumption, by pointing out for example the reforms announced by current Tory leader David Cameron in 2005. With different priorities and emphases the Conservative Party could be considered a different party than the Tories from the Thatcher years, which are still an important frame of reference for each Tory leader ever since.

Of course, the same holds for Labour. Tony Blair himself started a reform after his entrance as party leader in 1994, introducing "New Labour". New Labour was considered a further shift rightwards, towards the middle of the political spectrum. But despite the developments both parties went through, the parties' positions in the political spectrum opposed to each other can be considered constant: Labour is the traditional social democratic superpower, situated left of the middle of the political spectrum while Tory has always been the largest party at the right-wing, representing the conservative part of the electorate. Since we can link

[2] There is one exception: after the February, 1974 elections neither Labour nor Tory had gathered a majority of seats. Labour formed a minority government, which was supported by Northern-Irish Ulster Unionists. After half a year, Labour called for new elections in order to gain a majority – in which it succeeded.

both parties to one side of the political spectrum over the entire timeframe of analysis, the approach that considers Labour as left-wing and Tory as right-wing is legitimate.

An alternative approach would be to divide the sample period in subsamples and make separate dissections for each sub period. But, this would bring two problems. First, this would lead to sample periods too short compared to the governmental periods – in particular when conclusions should be drawn from these sample periods. The second problem is a more practical one: the only proper way to determine the starting point of a new political course is the change of a party leader. But, creating a separate sample for each time one of the parties had a change of leadership would lead to so many sub samples that statistical analysis would be impossible in advance already. So, choosing the sub periods would become a totally random process, in which the entire sample would be divided into two, three or four subsamples, on which probably no statistical conclusions could be drawn after all.

One governmental term is five years. But, opposed to for example the USA, during these five years the British Prime Minister can call for new general elections at any time. This can be considered an advantage for the incumbent PM over the opposition, since he can decide when elections will be held. Therefore, it can not be ruled out that the party in office plans the elections at 'a favorable time'. In this context, a favorable time for elections would be shortly after the disclosure of good economic news or figures.

Whether governments actually plan elections at an advantageous time will not be a subject of investigation. What will be investigated is the political business cycle theory. According to this theory (which will also be explained in the next chapter), incumbent governments manipulate the state of the economy in order to make the economic situation look more prosperous when elections come closer. The right to decide when these elections are held can be considered an extra advantage, but it does not change anything fundamentally towards the hypothesis that will be tested. However, it is an important feature of British politics.

Since World War II, seventeen general elections have been held in the United Kingdom. Nine of these elections were won by the Labour party, and eight by the Conservative party. Conservatives were in office for about 35 years; Labour governed the other 28 years. Despite

the governmental term usually lasts for five years, three times two elections did not have much time in between.[3] Table 2.1 provides an overview of all post-war British elections.

Table 2a: Overview of post-war British elections

Election day	**Incumbent**	**Winner**
5 July 1945	Tory	Labour
23 February 1950	Labour	Labour
25 October 1951	Labour	Tory
26 May 1955	Tory	Tory
8 October 1959	Tory	Tory
15 October 1964	Tory	Labour
31 March 1966	Labour	Labour
18 June 1970	Labour	Tory
28 February 1974	Tory	Labour
10 October 1974	Labour	Labour
3 May 1979	Labour	Tory
9 June 1983	Tory	Tory
11 June 1987	Tory	Tory
9 April 1992	Tory	Tory
1 May 1997	Tory	Labour
7 June 2001	Labour	Labour
5 May 2005	Labour	Labour

Source: Hudson et al. (1998)

[3] 1950/51, 1964/66 and 1974/74

CHAPTER 3: Theoretical framework

There are two economic theories that claim to describe the interaction between politics and the stock market: the political policy theory and the social mood theory. (Nofsinger, 2007) These two theories make opposite statements about the nature of the interaction. While the political policy theory states that the election's outcome affects the stock market (Alesina, 1987), according to the social mood theory the relation is the other way around: it says that the stock market's performance during a governmental term (co-)determines the election's outcome. (Fair, 1982, 1996) So, according to the latter theory, the stock market's performance may (partly) explain why a government was re-elected – or why it was not. These two theories contradict each other, for they make opposing statements about which variable is dependent and which one is independent. Since this paper focuses on financial economics, an attempt will be made to explain stock market movements rather than explaining election results. Therefore the political policy hypothesis will be tested, and further explained. We must however not forget that this might cause a problem of endogeneity, since it cannot be ruled out that not only the 'independent' variable explains the 'dependent' variable, but that the dynamics work the other way around, as well.

3.1 The political policy theory

The so-called partisan view of macroeconomics, as described by Alesina (1987), acknowledges that different political parties may have different preferences concerning their economic policy. These differences can be explained by the fact that different parties aim to represent a different part of the elective, and therefore may have different objectives to be reached with their (economic) policy. As Nofsinger (2007) points out, the political policy theory implies that if one party has superior economic policies over the other, then a governmental period of this party should lead to a better performance of the economy. This better performance should not only be noticeable through the more conventional economic indicators as inflation and unemployment, but also on the stock market, which then – as an indicator of the economy – should show higher returns.

So, to apply this theory to the subject of this paper: according to the political policy theory, the different (economic) policies applied by the Labour Party and the Conservative Party should influence the performance of the British economy during a governmental period. May

one of the parties' incumbency bring better economic performance, then this should also lead to better stock market performance during that party's period of office.

Following the political policy theory, the connection could be described as follows: One of the two parties wins the election, and forms a government. During the period of office, the elected party applies its own economic policies, and in that way it influences the economy. This influence can be either 'positive' or 'negative', so it can either stimulate or discourage economic growth. The way the economy moves has its influence on the stock market as well: higher economic growth should, ceteris paribus, lead to higher stock returns. So, if one party is better able to positively influence the economy through its policy, then the stock market should show higher returns during that party's periods of office. This theoretical cause focuses on a long-term share price movement, for which one should consider the entire period of office.

3.2 The stock market under Labour and Conservative governments

According to the political policy theory, the parties' different policies may have different implications for economic growth, and therefore for the stock market. But, does theory also offer arguments for higher stock returns under either a Labour or a Conservative government? Before explanations for potential differences in returns can be found, a political distinction between the two parties has to be made. Labour would then be characterized as the left-wing party, representing 'the workers' and the Conservative party as the right-wing party, representing 'the capitalists'. Straightforward, the party of workers should aim at low unemployment, which comes at the cost of higher inflation. The party of capital on the reverse strives for low inflation, in order to preserve the value of financial assets – a goal that usually comes at the cost of higher unemployment. (Hudson et al., 1998)

Where economists in the past used to consider stocks as an inflation-neutral investment (that is, changes in the inflation rate do not affect the expected real rate of return), nowadays it is more widely accepted that stock returns are negatively correlated with the inflation rate. (Bodie et al., 2005) Leblang and Mukerjee (2005) not only confirm this negative connection between inflation and stock market performance, but also link this to traditional left- and right-wing policies. They argue that higher expected inflation reduces trade. Because of the lower trading volume, the stock prices' volatility will decrease. Because of the lower volatility, the risk premium on the stock market will be lower, leading to lower mean stock prices. So,

assuming that left-wing parties aim for (and achieve) lower unemployment at the cost of higher inflation, this would mean that stock prices perform worse under left-wing (Labour), than under right-wing (Conservative) governments. The higher market returns under a Conservative government are caused by the lower (expected) inflation, which leads to a higher trading volume, higher market volatility and therefore a higher risk premium.

A contrary explanation is offered by Malkiel (1996), who tries to explain a positive connection between inflation and stock returns. He states that inflation brings uncertainty (and thus risk) about the economy. This greater uncertainty makes investors demand a higher required rate of return on their investments. So, if we would follow Malkiel's theory and combine it with Hudson's characterization of parties of workers and capital, we would expect higher stock market returns in time of a Labour PM.

3.3 The political business cycle

The other important political-economic theory this thesis will investigate is the political business cycle, which was first introduced by Nordhaus (1975). The theory is based on the proposition made by Downs (1957) that government popularity depends on the state of the economy. In addition to this, it is assumed that re-election depends on the economic performance in an election year/period. (Anything that happened previously is completely ignored, or forgotten.) The political business cycle is a term used in monetary economics to define the problem that comes from the principal-agent problem of monetary policy (Bofinger, 2001).

This 'cycle' is caused by the incentives of an incumbent government to give a short-term boost to the economy by an expansionary monetary policy in an election period, in order to enlarge its chances for re-election. This short-term boost leads to higher income, but it comes at the cost of higher inflation afterwards. After being re-elected, the administration has to deal with (too) high inflation. The most common way to reduce inflation is by cutting down expenses, leading to recession. But, when the next general election comes closer, the economy will be boosted again and the recession is forgotten. In fact, the appearance of the political business cycle is an important argument in favor of central banks acting independent of the government. (Gärtner, 2003)

Of course, there are other ways but an expansionary monetary policy through which the government can influence the economy. Here, one can think of an expansionary fiscal policy through tax cuts or excessive government expenditures. Although these methods do not unleash the exact same economic mechanism, its principles can remain the same: a government trying to give the economy a short-term boost to make its state look more flourishing than it actually is, in order to enlarge its chance for re-election.

If the incumbent government in fact has a way to influence the economy then – as was explained in the paragraph on the political policy theory – this might impact the stock market, too. Since there is probably not a single economic variable that receives as much (media) attention as the stock market movements, it may well be that the electorate sees the stock market as an important determinant of the state of the economy. (Döpke and Pierdzioch, 2006) Besides this, since the stock market can in general be considered as a leading indicator for real economic activity (Gärtner and Wellershoff, 1999), a political business cycle should be noticeable through its movements as well. When well-executed, a pattern of stock prices rising in the period preceding the elections should be observable. The presence of a potential 'election cycle' may be general, but not necessary: it could also be party-specific.

CHAPTER 4: Literature review

4.1 The political policy theory

Several papers show the existence of a link between politics and stock returns. As mentioned earlier, the most extensive research has been done for the United States. These researches focus on differences between left-wing (Democratic) and right-wing (Republican) presidencies. Riley and Luksetich (1980) look at both short- and long-term impact. They find that the American stock market increases (decreases) in the 8 weeks following a Republican (Democratic) election victory. But, considering the entire presidential term they show that the stock market performs better under a Democratic administration, with on average 5% higher returns than under a Republican president.

Johnson et al. (1999) at first do not find a significant connection between the political party of the American president and the performance of the S&P 500 Index, so they decide to consider different asset-classes. This division leads to some significant results, as small cap stocks significantly perform better under Democratic administrations, while numerous segments of the bond market seem to do better when a Republican inhabits the White House. In fact, they test for four categories of the debt market: long-term corporate bonds, long-term government bonds, intermediate-term government bonds and U.S. treasury bills. All four categories show significant higher nominal returns under a Republican administration, where the measured differences vary from 2.7 – 5.3% per annum.

For their 1927-1998 sample, Santa-Clara and Valkanov (2003) find excess returns to be 9% higher under a Democratic White House than under a Republican. This difference in excess returns is decomposed into on average 5.3% higher stock market returns and a 3.7% lower T-bill rate in times of a Democratic president. They show that these differences can not be explained by business-cycle variables or by differences in the risk of the stock market under different administrations. Also, they show that these return differences are not the result of a higher risk premium under Democratic administrations, which means that Democratic presidencies systematically surprise the market in a positive sense. Because of the lack of an economic explanation for their findings, they speak of a *"presidential puzzle"*.

Although Santa-Clara and Valkanov have made a significant contribution to exploring the connection between the stock market and politics, their work has not been uncontroversial. For example, Campbell and Li (2004) criticize their econometrical practice, by stating that the strikingly high differences are the result of the chosen methodology: Santa-Cruz and Valkanov base all their conclusions on ordinary least-squares (OLS). In their own research, Campbell and Li use weighted least-squares (WLS) and generalized autoregressive conditional heteroskedasticity (GARCH). In fact, they find lower estimates for the political variables' betas. These estimates vary over the subsamples, and these differences are explained as the result of changing market volatility – for which they say Santa-Clara and Valkanov did not account properly.

But not only the econometrical practice of Santa-Cruz and Valkanov is subject of discussion. Beyer et al. (2004) argue that the connection between policy and the stock market must not be explained with the political colour of the current government, but with the central bank's monetary policy. DeFusco et al. (2005) agree with this and try to explain stock market movements with interaction variables, that show both the party that is in power and the monetary policy (characterized as either expansionary or contractionary) carried out by the central bank. From these interaction variables they find some remarkable results. When a restrictive monetary policy is carried out, excess returns are higher in times of a Democratic president, like Santa-Clara and Valkanov found. But remarkably, in times of expansionary monetary policy, *"..the presidential puzzle reverses."* So, when the Fed carries out an expansionary monetary policy, the 'surprise' outperformance is reported in times of a Republican president.

Hudson et al. (1998) consider the British post-war share price movements, in both the short- and the long-term. Their first major finding is that the market responds positive (negative) to a Tory (Labour) election victory. This was found by looking at the stock market's movement after the election's result has been announced: usually the day after the elections. These results were confirmed by the fact that at a post-election day the stock market is over-average volatile, and are even strengthened by the fact that after a 'surprise' victory for Tory (Labour) the increase (decrease) of the stock market is even larger. For the long-term, they consider both nominal returns as real returns: the nominal returns corrected for the retail prices index. They use daily log-returns, and quarterly inflation data. They find no statistically significant differences between the (nominal or real) returns under left- or right-wing administrations for

the FT30 Index. However, significant differences are shown for two important economic indicators: inflation is significantly lower under a Tory administration, while real interest rates are significantly higher under a Conservative prime minister.

Leblang and Mukherjee (2005) broaden the field, and try to find some joint conclusions for the link between a left- / right-wing government and the stock market, by looking at both the US as the UK. They construct a *"model of speculative trading"*, in which they link expectations of inflation to trade volume, stock prices and their volatility. They counter previous authors who claimed that (expectations of) a left-wing victory increases volatility and therefore has a negative welfare effect, by stating that this claim is fallacious. In fact, they find that although under a left-wing government the stock market shows decreasing returns, financial markets do show more stability (so less volatility). This implies both a negative as a positive welfare effect for investors, so the overall effect is ambiguous.

Most of these papers focus at nominal returns, in their analysis. Nominal returns do not always provide a 'fair' comparison: only when the assumption that the cost of capital (interest rate) is constant over the entire sample period holds, nominal returns tell the whole story. Since this assumption is not very realistic – especially when we consider a 40 year time frame – I prefer the method used by Santa-Clara and Valkanov, who consider excess returns. I will also focus on excess returns in this thesis.

4.2 The political business cycle

Usually, the political business cycle is expressed in terms of inflation or employment. But there are also suggestions that the political business cycle influences stock markets. Gärtner and Wellershoff (1995) find four-year *"election cycles"* for American stock prices since the 1960s: during the first two years of a presidential term stock prices seem to fall, while during the last two years an upward trend can be observed. Although Gärtner and Wellershoff *"deliberately refrain from speculating about any underlying causes"* and therefore do not speak of a political business cycle, they do speak of an election cycle, since it *"goes hand in hand with election dates"*.

Hudson et al. (1998) find no significant differences in either stock market returns or important economic indicators across terms of office, which they investigate separately for Labour and Tory governments. Since stock returns do not differ statistically significant between the first

and the second half of the government terms, they conclude that both parties are not able to manipulate the stock market for election purposes. Because the five considered economic indicators[4] do not significantly differ between a first and second half of either a Labour or a Tory term of office, they find no evidence for the hypothesis put forward by Alesina and Sachs (1988) that parties can, by pursuing political parties, manipulate the variation of economic variables during their office period.

In their research on the German stock market and politics, Döpke and Pierdzioch (2006) find *"no strong evidence for political or election cycles in stock returns"*, even though their results do suggest that stock market movements may influence the government's popularity and therefore the possible re-election of that government.

[4] 1. Real increase in GDP, 2. Real increase in company trading profits, 3. Retail prices index increase, 4. Average real interest rate, 5. Average Unemployment rate.

CHAPTER 5: Data and methodology

5.1 Data

Since this thesis focuses on stock market movements, it is important to select reliable data on the stock market. Like Hudson et al. (1998), I will also use the *Financial Times* Industrial Ordinary Index (FT 30). For this is, according to the Financial Times *"the oldest continuous index in the UK"*, the availability of data should provide no significant problems. From Thomson Datastream, data from 1965 - 2008 is available. The FT 30 Index' movements are a reflection of the stock prices of 30 British large caps from different industries and it is an equally weighted index. Compared to 'regular' indices it is stable in its composition, since a company in the index is only replaced by another when that replacement is unavoidable. This is in case of a merger, a takeover or a bankruptcy.[5] So, unlike many indices it is not revised periodically. This might raise some doubts about the representativeness of this index for the British stock market, as it may not always be an actual reflection of the largest British companies. But because of its stable composition and availability over more than four decades it is the most suitable index for this analysis. Furthermore, when a company had to be replaced it is ensured that a real large cap will replace it. Since I look at returns, a returns index was selected. That is an index that corrects for corporate actions, such as stock splits and dividend payouts.

Where the mentioned article from 1998 looks at nominal and real returns, I will convert the nominal returns to excess returns, by subtracting a risk free rate. In the DSI Data Service & Information Databank (Source: International Monetary Fund, Washington), the UK Treasury Bill rate was found. Both the FT 30 Index and the Treasury Bill rate were converted to monthly returns / rates in order to calculate the monthly excess returns.

Since the effect of politics on the stock market is investigated here, each observation must be linked to either a Labour or a Conservative government. The information on UK election dates is provided by Hudson et al. (1998). Although a new governmental term does not start immediately after the elections, it can be argued that the old government loses a significant amount of its power, after losing elections. Therefore, the election days are roughly considered as the end and start of a governmental term.

[5] More on the FT 30 Index, including all historical changes in composition can be found on http://www.ft.com/ft30

The other economic variables that will be used (inflation and unemployment rate and the UK interbank 1 month- and 1 year rates) were all found in Thomson Datastream.

5.2 Methodology

5.2.1 Political premium

To search for possible differences in stock market returns between Labour- and Conservative-governed periods, first the simple regression with one dummy variable will be applied. A dummy variable *L* with value 1 if the incumbent government is Labour, and 0 if it is not will be regressed on the monthly stock market returns – first on the nominal returns and later on the excess returns. Since we study a factual two party system, the value 0 for this political dummy implies that the Conservative Party is in office. Here, *R* stands for returns or excess returns, where the latter is calculated by subtracting the risk free rate (1-month government bond rate) from the nominal market return. The simple regression on excess returns and the political dummy variable looks as follows:

$$\boldsymbol{R = \beta_0 + \beta_1 L + u}$$

Under the null hypothesis of the political party in office having no influence on stock market returns, the beta should be zero, H_0: $\beta_1 = 0$. H_1: $\beta_1 \neq 0$.

After the simple regressions with only the political dummy variables, several control variables will be added. These variables will be added for two reasons: checking possible previous results for robustness and making the comparison more fair, by correcting for different economic circumstances. Some control variables are also dummy variables, such as the dummies for high- or low unemployment, or the dummy that indicates an inverted yield curve. Other variables will be numerical, such as the (monthly or yearly) inflation rate. In both cases, null hypothesis will remain H_0: $\beta_1 = 0$, for a null hypothesis presumes that a variable has no impact on the dependent variable.

5.2.2 Election cycle

The election cycle can be noticeable in different forms. The simplest and also most widely researched manner is to make a distinction between the first and the second half of a governmental term. Again, a regression with returns *R* as the dependent variable is estimated.

This time: dummy variable T, with value 1 if the concerned month is in the second half of the present government's term of office, and value 0 otherwise. The simple one-dummy regression estimation would look as follows:

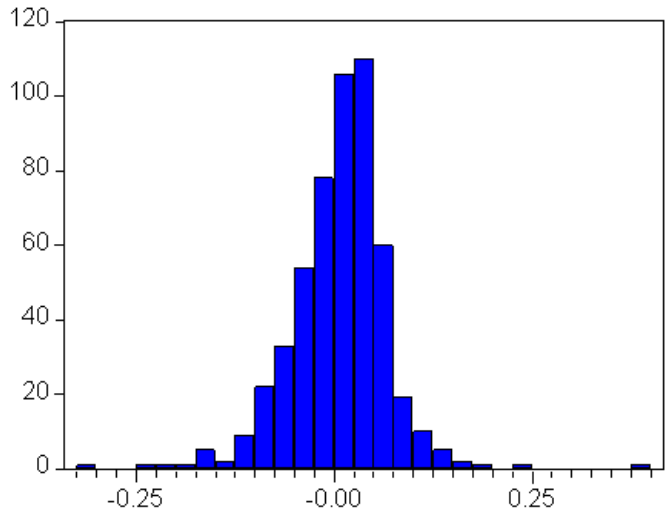
$$\boldsymbol{R = \beta_0 + \beta_1 * T + u}$$

Here, null hypothesis is that there is no election cycle, so a zero beta. H_0: $\beta_1 = 0$. H_1: $\beta_1 \neq 0$. Another possibility is that the election cycle appears most observable in the last year preceding the next elections. (Gärtner, 2003) To investigate this, the dummy should take value 1 in the last year of the government's term of office, and value 0 otherwise. Another economic variable that could indicate a possible political business cycle is the unemployment rate. When the term factors are regressed not on excess returns, but on unemployment, it can be tested whether unemployment might deviate significantly over different phases of a presidential term. The same might hold for inflation. Again, simple one-dummy regression estimations will be made, with similar form as the above mentioned estimation: the only thing that changes is the dependent variable. Furthermore, since the existence of a political business cycle is not necessarily similar for both parties, it may be interesting to make separate regressions for both parties' periods of office.

CHAPTER 6: Nominal returns

In this chapter, a first indication of possible differences in stock market returns under different administrations will be searched by examining nominal returns. Figure 6.1 shows the distribution of the FT 30 Index monthly (log) returns, from 1965 until June, 2008. (43.5 years = 522 months). On the horizontal axis, the distribution of monthly returns is shown (each bar represents a width of 2.5%), while the vertical axis shows each group's frequency. As can be seen, almost half of the observations shows returns between -2.5% and +2.5%, per month. The sample period is almost equally distributed between Labour and Tory: 262 out of 522 months were governed by Labour, and the other 260 by the Conservative Party.

Figure 6.1: FT 30 Distribution of index monthly log returns, 1965-2008



Average monthly returns are 0.76%. The highest one-month returns since 1965 were 39.3%, in January 1975, when markets were booming after the ending of both the 1973-1974 stock market crash and the first oil crisis. During this booming period, Labour was in office after the incumbent Tory government was voted out in October, 1974. (Therefore, the greater part of the 1973-1974 stock market crash took place under a Tory regime.) The highest 1-month loss (30.6%) took place in October, 1987 – which must of course be ascribed to Black Monday on October 19, 1987. This stock market crash occurred during the third out of four sequential terms of Tory reign.

When we consider the periods of a Labour and a Tory Prime Minister separately, some differences are observable. Average monthly returns under a Labour government are 0.5%.

The entire sample's highest monthly return (39.3%, January 1975) occurred in a Labour period. Further investigations shows that the top 5 monthly returns all took place in the years 1975 and 1976, which were governed by Labour.

Average monthly returns in a period of Conservative administrations are twice as high as for Labour: 1.0%. This is remarkable, since the returns under a Conservative government show both a lower maximum and a lower minimum value. So, despite the fact that the highest 1-month returns were in a Labour period, and the absolute highest 1-month losses were in a Tory period, still periods of Conservative governments show on average higher stock returns. Also, returns under a Tory administration show lower volatility, according to the sample's standard deviation (5.5% for Tory vs. 6.5% for Labour). Table 6a shows the most important descriptive statistics of the sample.

Table 6a: Monthly nominal returns

	Total	Labour	Conservative
Observations	522	262	260
Obs. > 0	315	154	161
Obs. < 0	207	108	99
Mean	0.76%	0.49%	1.02%
Standard Deviation	6.05%	6.51%	5.54%
Maximum	39.35%	39.35%	14.43%
Minimum	-30.59%	-22.88%	-30.59%

Although the difference between monthly nominal returns appears to be relatively large, it is not statistically significant, with a t-statistic of 1.00 (p-value of 0.32). So a first global impression, based on nothing but nominal returns shows that the stock market performs better (in absolute terms) in times of a conservative administration, although this outperformance is not statistically significant. The next step in the analysis is to use excess returns, in stead of absolute returns.

CHAPTER 7: Excess returns

In this chapter, the analysis of the British stock market will focus on excess returns, in stead of nominal returns. These were calculated by subtracting a 'risk free' rate from the FT 30 Index' log returns. As risk free investment, the UK Treasury Bill rate was converted to a monthly rate. Figure 7.1 shows the distribution of the FT 30 Index' excess returns over the sample period.

Figure 7.1: FT 30 Index monthly excess returns, 1965-2008

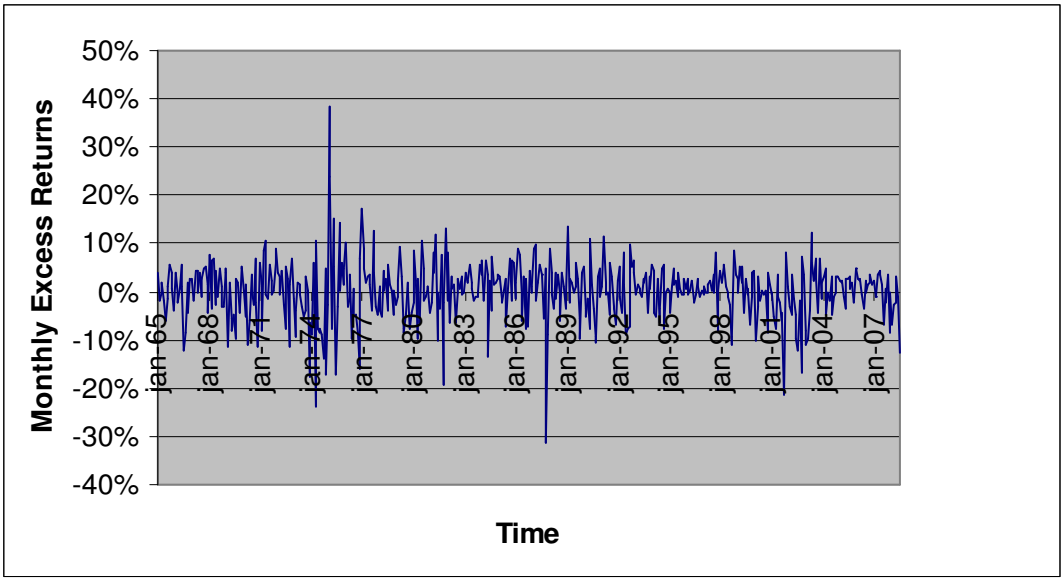
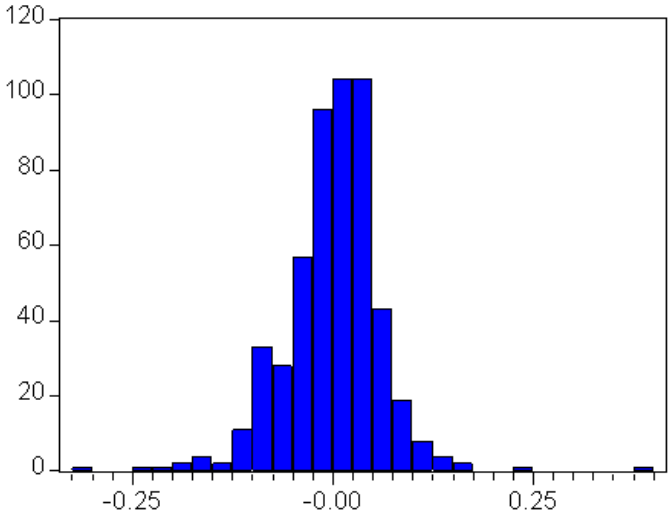


Figure 7.1 gives some indication about which periods were either extremely successful or extremely unsuccessful for stock market investors. But more important, it suggests that volatility concentrates in specific periods since the peaks and troughs appear to follow up on each other. The mid-70s, the early 80s, and the late 80s all show highs above 10% and lows around or below -20%. This suggestion will be tested later on.

As excess returns are calculated as the difference between nominal returns and a risk-free rate, a potential difference in the risk-free rate under the two parties' incumbency might be important. Using a simple single dummy regression, a significant difference in risk free rates (T-Bill rates) under Conservative and Labour administrations is shown. In times of a Tory government, the treasury bill rate is on average almost 3 percentage points higher, (9.5 vs. 6.6%) and that difference is significant at the 1%-level.

Figure 7.2 shows the distribution of monthly excess returns. Again, the horizontal axis ranks the returns on bars with a width of 2.5%, while the vertical axis shows each group's frequency. From 1965 – June 2008, monthly excess returns were on average 0.11% (1.38% per annum). As the graph shows, over 50% of the monthly observations yields returns between -2.5% and +5%.

Figure 7.2: The FT 30 Index monthly excess returns distribution, 1965-2008



After showing the distribution of the entire sample period, now we must make a division between the periods that Labour was in office, and those in which the Conservatives governed the country. When we first consider the 262 months that Labour was in office, the FT 30 Index on average underperformed the risk free rate in times of a left-wing prime minister, meaning that the stock market did not pay a positive risk premium. In times of a Labour administration: on average monthly excess returns are -0.04%.

The negative risk premium in times of a Labour government contrasts to the stock market's performance in times of a Conservative administration. In fact, the FT 30 Index on average paid a monthly excess return of 0.27%, or 3.25% on a yearly base, when the Tories were in office. So, if we convert the monthly excess returns to yearly figures, in times of a Conservative government, the FT 30 Index shows on average 3.7 percentage point higher excess returns than under a Labour administration. Before investigating whether this difference is statistically significant, it must be stated that in an economic sense, a difference in excess returns of almost 4 percentage point per year is significant. Also, excess returns in times of a Tory PM show lower volatility than excess returns under a Labour government.

(Standard deviation is 5.6% versus 6.5%.) Table 7a provides an overview of the excess returns' key statistics.

Table 7a: Monthly excess returns

	Total	Labour	Conservative
Observations	522	262	260
Obs > 0	286	143	143
Obs < 0	236	119	117
Mean	0.11%	-0.04%	0.27%
Standard Deviation	6.04%	6.51%	5.55%
Maximum	38.51%	38.51%	13.45%
Minimum	-31.34%	-23.82%	-31.34%

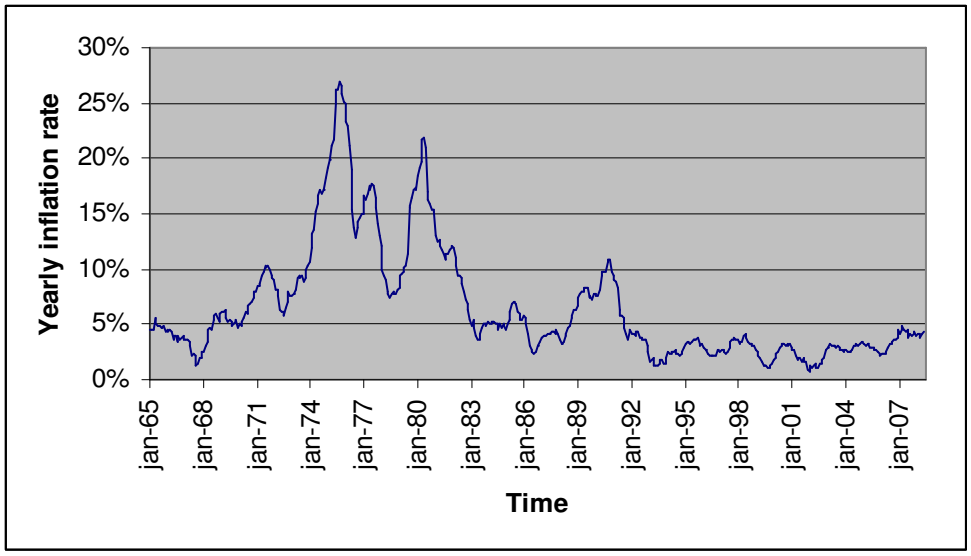
But, is the yearly difference of 3.7 percentage point in excess returns besides economically significant, also statistically significant? The one dummy variable regressions' beta estimators give a highly insignificant p-value of 0.57, which is of course too high to reject the null hypothesis at any relevant significance level. So, from these regression estimations, no (statistical) conclusions can be drawn. Nevertheless, this changes nothing about the fact that in the last 43 years the stock market yielded higher excess returns when the United Kingdom was governed by the Conservative Party.

CHAPTER 8: Control variables

In this section, the inclusion of more variables might give new insights in the stock market's movements. In the previous sector, a difference in returns between periods of Tory and Labour administration was found. However, this difference was not found to be statistically significant. Several control variables will be included:

Inflation. As a measure of the price level, monthly increase in Retail Prices Index (RPI) was used. According to the British National Statistics Online, the RPI is "*the most familiar general purpose domestic measure of inflation in the United Kingdom*". Figure 8.1 shows British inflation rates (percentages per annum) since 1965. The two highest peaks resulted from the two global oil crises in the 1970s. As was mentioned in chapter 3, there are opposing views on the link between inflation (expectations) and stock market returns

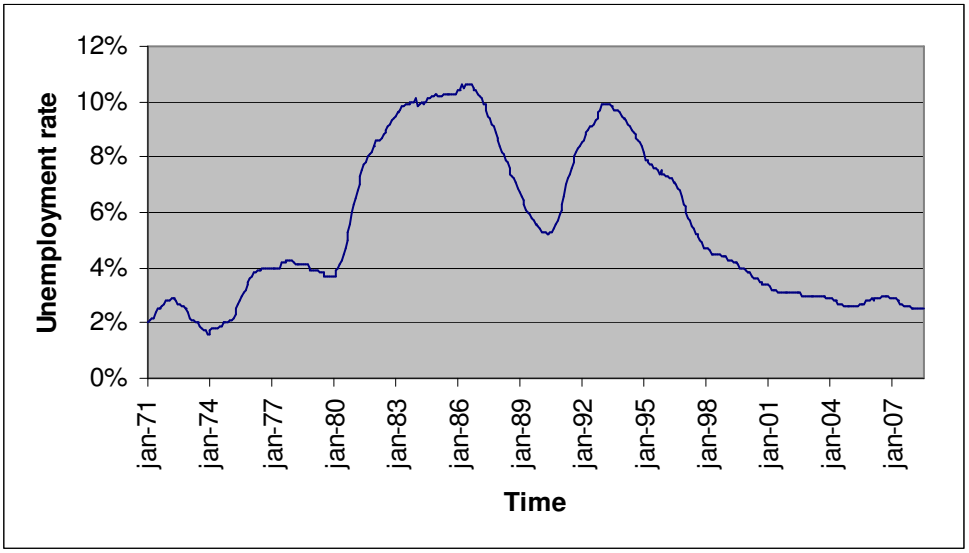
Figure 8.1: UK yearly inflation rates, 1965-2008



Unemployment. Since 1971, UK unemployment rate was on average 5.5%. High unemployment can be interpreted as an indication that the economy is experiencing a downfall, while low unemployment shows that the economy is operating at, or near, its full capacity. On the contrary, when looking at expectations (which should be reflected in stock prices / -returns) high unemployment could also indicate lower future unemployment which reflects economic growth.

States around the average unemployment rate might be considered as 'normal'. Therefore, impact of the unemployment rate (and therefore, the state of the economy) might only occur when it is extraordinary high or low. Therefore, two dummy variables were created: one which is valued 1 when unemployment is higher than 7% and zero otherwise (*Dum_U_Hi*), and one that takes value 1 when unemployment is lower than 4% and zero otherwise (*Dum_U_Lo*). It might appear that not the unemployment rate itself, but rather its relative height impacts the stock market. When we look at figure 8.2, which shows the British unemployment rate over the past four decades, a remark on the created dummy variables for high and low unemployment has to be made: since unemployment does not fluctuate as dynamic as inflation, the dummies for U > 7% and U < 4% cover long periods. The dummy for low unemployment roughly covers the first years of the dataset (1971-1976) and the last decade (2000-2008), while the periods of high unemployment are visible in the centre of the graph: unemployment was over 7% from 1981-1996, with a two and a half year break from 1989-1991.

Figure 8.2: UK unemployment, 1971-2008



As was stated in the Theoretical Framework, it is often said that left-wing administrations fight unemployment at the cost of inflation – while a right-wing government wants to keep inflation at a low level, thereby decreasing employment. So, it must be checked whether inflation and unemployment are significantly different under the two parties' incumbency.

According to the simple regression estimations (see Appendix), inflation does not differ statistically under the two different governments. But, when we regress the political dummy variable on the unemployment rate, a significant difference is observable. While in times of a Labour administration unemployment was on average 3.4%, conservative governments in the last four decades can be associated with higher unemployment rates with an average of 7.2%. The estimator's p-value of 0.00 shows significance at the 1% level.

A money market variable. Interest rates can provide important information about the market conditions and forecasts. Normally, the interest yield curve is upward sloping, meaning that long-term interest rates are higher than short-term interest rates. In order to make a (simplified) characterization of the money market, the UK Interbank 1 month- and 1 year interest rates were compared. A dummy variable 'inverted yield' was created, with value 1 if the 1-month rate is higher than the 1-year rate, and value zero otherwise. An inverted yield normally indicates future interest rates will decrease, which may be an indication for economic stagnation. (Bofinger, 2001.)

Not all the included control variables are available from 1965. For UK unemployment, data from 1971 is available, while the dataset that was used to characterize the money market starts in 1975. To make a 'fair' comparison between the situation with and without the control variables, it is necessary to compare over the same period. Therefore, the simple regression with only the political dummy variable is also estimated for the periods 1971-2008 and 1975-2008. Neither these equations show significant results for the political dummy variable, so in this sense the results do not differ from the 1965-2008 results.

A dummy variable for expansive monetary policy. As the research papers by Beyer et al. (2004) and DeFusco et al. (2005) show, monetary policy can also help explaining stock market returns. With the earlier mentioned risk free rate a dummy variable was created, with value 1 if the monetary policy can be characterized as expansionary, and 0 when it can be characterized as restrictive. When the last change in the Treasury Bill rate was an increase, the current monetary policy is considered to be restrictive, while when the last movement of this rate was a decrease the policy is defined as expansionary. Consequently, a dummy variable for a restrictive monetary policy was created. Also, four extra dummies were created: the interaction variables of the political and the monetary policy dummies.

The first control variable that will be added is the inflation variable. The regression with two independent variables (the political dummy and the inflation rate) shows mixed results. The influence of the incumbent party is still insignificant. The inflation rate however seems to have a positive, significant (at $\alpha = 0.05$) influence on excess returns. This could be explained as follows: higher inflation makes money lose its value more rapidly. Therefore, a higher compensating (risk) premium is required on the market. When we look again at the opposite statements which were explained in section 3.2 of Leblang and Mukerjee (2005) at the one side and Malkiel (1996) on the other side, we must conclude that these findings support Malkiel's theory: higher inflation means higher uncertainty and therefore a higher risk premium is required.

When we look at the influence of the monetary policy on stock market returns, we see that over the entire sample period, a positive and significant (at $\alpha = 0.01$) beta estimator was found for period with an expansionary monetary policy. Furthermore, it was found that there were no significant differences between excess returns under a Labour or Tory government in either a time of restrictive or expansionary monetary policy. So, contrary to DeFusco et al. (2005), no 'reversing' presidential puzzle was found: regardless which party is in office, excess returns are ceteris paribus higher in periods of an expansionary monetary policy.

Another variable that could possibly explain excess returns is the excess returns in the previous period. To check for this possible link, a lagged variable (*Excess Returns T-1*) is added. This variable however, does not show a significance impact. But, does this mean that past excess returns do not explain current excess returns at all? As a test, absolute values of excess returns are used, so that all values of *Excess Returns* and *Excess Returns T-1* were positive. Then, a statistically significant (positive) relation is found. Since absolute (and not real) values were used, it can be concluded that high returns in the past period (either positive or negative) make high returns (again, either positive or negative) in the current period more probable. So, the suggestion proposed by figure 7.1, that stock market volatility comes clustered, seems to be correct.

Adding the other control variables (the unemployment rate, the dummy variables for high and low unemployment and the dummy variable for an inverted yield curve) does not provide any new connections or explaining factors for stock market excess returns. However, including these variables does 'improve' the regression estimation, by increasing the regressors' jointly

significance. The equation shown in table 8a is the most significant one, and will therefore be considered extensively.

Table 8a: Multiple regression estimation of UK stock market excess returns, 1975-2008

Dependent variable: Monthly excess returns
Observations 401

	coefficient	p-value	
Constant	-0.0295	0.0179	**
Dummy Labour	0.0384	0.0146	**
Dummy for high unemployment	0.016	0.1763	
Dummy for low unemployment	-0.0262	0.1023	
Yearly inflation rate	0.1702	0.0034	***
Dummy for inverted yield curve	0.0022	0.7503	
Dummy for expansionary monetary policy	0.0191	0.0027	***
R-squared	0.0594		
Adjusted R-squared	0.0451		
F-statistic	4.1500	0.0005	***

***, ** and * indicate significance at the 1%-, 5%- and 10%-level.[6]

This regression estimation provides the best insights in the UK stock market for the period considered, analyzed with data on unemployment, inflation, interest rates and politics. It shows a positive and statistical significant relation between inflation and stock market excess returns. The relation between unemployment and excess returns is not highly significant, but remarkable: high unemployment is linked with higher excess returns, and low unemployment with lower excess returns. Although this may be counterintuitive, it confirms that not the

[6] Interpretation of important coefficients:
Monthly Excess Returns: percent per month, with 0.01 = 1 percent.
Labour Dummy: coefficient of +0.0384 means that given unemployment, inflation and the yield curve, monthly excess returns are expected to be 3.84 percentage point higher in times of a Labour government, than under a conservative government.
Yearly Inflation Rate: percent per annum, with 0.01 = 1 percent. Coefficient of 0.17 means that a 1 percentage point increase of the yearly inflation rate is expected to lead to a 0.17 percentage point increase of monthly excess returns.
Dummy for expansionary monetary policy: coefficient of 0.0191 means that ceteris paribus, monthly excess returns are 1.9%-point higher in times of a monetary expansionary policy.

economy's current state, but rather foresights and expectations determine stock market returns. The regression estimation gives no indications that the money market variable for the inverted yield is an important determinant for stock market returns. But, most important in answering the main question: what does the positive value for the political (Labour) dummy variable tell us? The positive (and significant) value for the Labour variable is surprising, considering that earlier it was found that the stock market performs better in times of a conservative administration.

First, the coefficient must be interpreted. Its magnitude (0.0384) shows that, after the effects of the control variables are filtered out, the stock market yields almost four percentage point higher monthly excess returns in times of a left-wing administration. This would mean that – given expectations based on economic circumstances – excess returns in times of a Labour government are over 40 percentage point higher than in times of a Conservative government. This remarkable percentage requires some explanation, one could best interpret this as follows. When considering the state of the economy (here: inflation, unemployment and the yield curve – of course, other economic variables could be added) one forms expectations about the level of stock market excess returns. The equation shows that in times of a Labour government, the stock market excess returns are 3.8 percentage point higher than one would expect when looking at the economic circumstances: a Labour 'surprise' premium is added to the excess returns. When we convert this to a yearly figure, this would mean a yearly 'surprise' over performance of more than 40 percentage point.[7] Since the beta estimator has a p-value of 0.0179, it is significant at the 5%-level.

Of course, this conclusion could be criticized. One could argue that the control variables (unemployment, interest rates and inflation) cannot be seen apart from the political party currently in office - a statement that is partly proven by the above executed statistical tests. On the other hand, the regression estimation's F-Statistic of (4.15) shows that the variables are jointly significant.

Therefore it can be concluded that corrected for macroeconomic variables that (co-)explain excess returns, the stock market performs better under a Labour administration and that this

[7] The constant term in the equation is -0.0295, so -2.95%-point per month, which equals -30.2%-point per annum. The estimated beta for the political variable is 0.0384, so 3.84%-point per month over the constant term. This would yield positive returns of 0.9%-point per month, which equals 11.2%-point per annum. The difference between -30.2%-point and 11.2%-point is 41.4%-point per annum.

outperformance is statistically significant. Given economic circumstances the stock market yields on average 3.85 percentage point higher returns per month in times of a Labour government than expected, compared to when the Conservative Party is in power. So, in times of a Labour government the stock market consistently exceeds expectations, rewarding investors with additional and unexpected (hence: 'surprise') excess returns of 3.85 percentage point per month.

So, despite that actual excess returns showed to be higher in times of a Conservative administration, there is a way for investors to score off the market's expectations, by including the 'surprise' Labour excess returns (or the 'surprise' shortfall in times of a Conservative government) in their own expectations. With the inclusion of the 'political surprise' to one's expectations, one could exploit this knowledge by trading in options or futures – since the market has not priced those products with the expectations (or: 'knowledge') of the political premium.

A last thing to mention is that the equation's R-squared is only 0.06, so only 6% of the movements in excess returns was explained by this estimation. So, besides to the political situation in a country, also the inclusion of variables that indicate unemployment, inflation and the money market does not succeed to explain the dynamics of the stock market returns for a considerable amount.

CHAPTER 9: Election cycle

In this section, the possible existence of an election cycle in the United Kingdom will be the subject of investigation. Primarily, this investigation will be performed by looking at stock market returns. Later, other macroeconomic variables that van be influenced by a government will be studied as well. According to the theory of the political business cycle, the incumbent government – aiming for re-election – has incentives to make the economy look more prosperous than it actually is, during an election year/period.[8] This theory therefore suggests the existence of an 'election cycle', an economy that tends to peak around (shortly before) election time. If the election cycle exists, certain patterns should be noticeable. What would this mean for the stock market? Higher stock market levels and returns close to elections would make re-election more likely. So, if there is a pattern in which the stock market returns tend to peak in the second half (or the last year) of a governmental term, this might indicate the presence of an election cycle.

As explained in the theoretical framework, the political business cycle theory suggests that the short-term boost of the economy before the elections causes higher inflation after election time. This higher inflation has to be dammed in the first half of the next governmental term, so that it can expand after the next electoral boost again. The opposite goes for unemployment: the low unemployment, that can help re-election, will become higher during the stagnation in the early years of the next governmental period.

But besides this theoretical cycle, inflation and unemployment have another interesting political weight. As was mentioned in chapter 3, the left- and the right-wing parties traditionally have a different rank and file: recall the distinction between the party of capital and the party of workers. Since these two parties have different instruments to 'please' their electorate, the movements of these 'instruments' might differ between a left- and a right-wing government. This could mean that at election time, Labour aims at low unemployment while Tory focuses on low inflation. Since boosting the economy normally brings higher inflation, this might bring a Conservative government in a conflict of interest. Labour therefore might be more efficient in influencing the economy in its attempt to seduce the electorate.

[8] According to Gärtner (2003), the 'boost' could take place in either the election year (so the last year of the administration period) or in the second half of this period, so the last 2-2.5 years.

In investigating the possible existence of an election cycle in British stock market returns, a problem of endogeneity might arise. As was explained in Chapter 2, the British Prime Minister can – within his five year-term – decide when new elections will be held. As Table 2a already showed, almost every two elections had less than five years in between. Since it can not be ruled out that in deciding when general elections will be held the economic conditions at election time are considered, this provides us a potential problem of endogeneity: Does the economy peak at election time, because the government aims at economic prosperity at the end of its term, or do governments wait for the economy to peak before calling for new elections? In order to test for the possible endogeneity of the election dates it should be checked when the general elections were called for, and on what level the Index was at that time. Unfortunately, the exact dates of the calls for election can not be found, so that this test can not be done. Because this section studies the political business cycle theory and tries to explain movements of the stock market and other economic variables, the election dates will hereafter be considered as exogenous and the other data as endogenous.

To consider political cycles in a fair way, the dataset has to be reduced to the period from April, 1966 until May, 2005. This, because we can only consider governmental terms that are completed, and entirely present in the dataset. If we would for example include half a governmental period as well, we would either miss the first years of a governmental period (with the potential fall of the market) or the end of this period – with the assumed upswing. So, we would search for a pattern over a period, without including the entire period. Therefore, the Labour government that resigned in early 1966 can not be considered, because the data on stock market returns is available only from 1965. Also, the current Labour term will end in 2009 or 2010, so this period can not yet be considered as well.

From January, 1965 until now, eleven general elections were held. From these eleven elections, nine governments that completed their term resulted: the Labour victory in February, 1974 was followed by new elections only seven months later. Therefore our search for political cycles in stock market returns will focus on the following nine governmental periods:[9]

[9] The months: June, 1970; May, 1979; April, 1992 and May, 1997 can not be assigned to one specific government's period and are therefore not assigned to a governmental period. Of course, these observations are not excluded from the dataset.

1. April, 1966 – May, 1970. Labour.
2. July, 1970 – February, 1974. Tory.
3. November, 1974 – April, 1979. Labour.
4. June, 1979 – May, 1983. Tory.
5. June, 1983 – May, 1987. Tory.
6. June, 1987 – March, 1992. Tory.
7. May, 1992 – April, 1997. Tory.
8. June 1997 – May 2001. Labour.
9. June, 2001 – May 2005. Labour.

In addition to the already used dummies for a Labour and Conservative government, two more dummy variables are added: *DUM_2ndHalf* and *DUM_LastYear*. *DUM_2ndHalf* takes value '1' when that month was in the second half of the governmental term, and value '0' otherwise. The other newly created dummy variable, *DUM_LastYear*, takes value '1' in a government's last year. That is, in the twelve months preceding general elections.

In investigating the election cycle, both nominal and excess returns are considered. This choice is triggered by the statement that we no longer deal with investors, but with the entire electorate. It may not be reasonable to expect from the entire English electorate to handle a risk free rate, not to mention to translate nominal returns to excess returns. Since the stock market itself may be considered as one of the most important indicators of the state of the economy, the possibility that the electorate sees nominal stock market returns (the height of the index) rather than excess returns cannot be ruled out. (Döpke and Pierdzioch, 2006)

The starting point estimations, which regress the dummies for second half or last year of a term on both nominal and excess returns give us a minimal and insignificant effect. This would indicate that there is no election cycle noticeable over the considered period. As we know, during this period there have been two political parties in office: the Labour and Conservative parties. Maybe, the election cycle is a phenomenon that appears more in times of left- or right-wing dominance. Therefore, we need to create new dummy variables: *DUM_Cons2ndhalf*, *DUM_ConsLastyear*, *DUM_Lab2ndhalf* and *DUM_LabLastyear*. These dummies are the product of the political dummy variables and the dummies indicating whether the returns were yielded in the first half, the second half or the last year of a governmental term. Regressing these more specified dummy variables on the market returns

does not lead to significant outcomes, as well. For the regressions, see the Appendix. After these estimations, there clearly was no election cycle over the period 1966 – 2005 in British stock market returns.

The conclusion that there has been no election cycle in stock market returns over the entire period considered does however not rule out that a some political cycle has been present in the British stock market in one or more periods in the past five decades. Therefore, for each of the nine mentioned governmental periods a subsample is created. For each subsample, the Index' returns are calculated for the first half, the second half and the last year of the sample period. Table 9a shows the results.

Table 9a: The division of each governmental period's stock market returns

Period	1	2	3	4	5	6	7	8	9
Start value	112	139	97	333	595	1709	2608	4623	5705
Value half way	169	229	222	407	919	1909	3289	6446	2964
Value 1 year before end	158	198	284	466	1266	2333	4228	6230	3647
End value	133	156	356	595	1709	2385	4495	5705	4147
Total returns	19%	13%	268%	79%	187%	40%	72%	23%	-27%
First half returns	51%	65%	130%	22%	54%	12%	26%	39%	-48%
Second half returns	-21%	-32%	60%	46%	86%	25%	37%	-11%	40%
Last year returns	-16%	-21%	25%	28%	35%	2%	6%	-8%	14%
1st or 2nd half?	1	1	1	2	2	2	2	1	2
Last year above avg?	N	N	N	N	N	N	N	N	Y
Government	L	T	L	T	T	T	T	L	L

The nine examined governmental periods show five periods of a Tory-, and four of a Labour administration. When we take a first look at the descriptive statistics of the nine subsamples, some things are remarkable. When we compare the FT 30 Index' returns between the first and the second half of the governmental terms, it appears that in four out of nine cases the stock market performed better in the first half of a term – so in five out of nine cases the second half of a governmental term was the more successful stock market period. In only one out of nine cases, the last year before general elections showed returns that were above the average returns of that government's term. These first findings would clearly deny the existence of an

election cycle, since there is no indication that the stock market tends to peak when elections come closer – therefore not even to mention if that peak may be 'artificial' in the sense that is the result of the government's policy.

But if we analyze these nine periods again, and also consider which party was in power, a noteworthy pattern comes out. Out of the five periods in which the second half showed better stock market returns than the first half, four periods were Tory-governed. In fact, the long-lasting period of Conservatives in office from 1979 until 1997 showed four sequential periods in which the stock market yielded positive returns in the first half, but even higher returns in the second half of the governmental term. Taking a closer look at the FT 30-Index (Returns Index) learns us that in three out of these four periods, the Index reached its highest value[10] during that term's last month – so the month in which the general elections take place.

These findings suggest that if the theory of the Political Business Cycle ever reflected in the U.K. stock market, it must have been in the mentioned period of Conservative domination from 1979 – 1997. Since this suggestions deserve further investigation, the regression estimations will now be made for these four governmental periods only. Despite the fact that in each of the four office terms the second half yielded higher returns than the first half , no significant differences were found between nominal or excess returns, over the first half, second half or last year of term for the period 1979 - 1997. Therefore, it can only be concluded that , since 1965, there has been no election cycle in British stock market returns: neither over the entire period, nor over the almost 2 decades of Tory dominance.

But does this also mean that the existence of the political business cycle is rejected completely? Obviously, it does not. If stock markets are efficient they cannot be influenced (or 'fooled') by a government, manipulating the economy for re-election. So the absence of an election cycle in the last four decades' U.K stock market returns does not prove that governments do not use their fiscal or monetary instruments to boost the economy at election time. As has been mentioned before, the two most important economic indicators for gaining electoral support are unemployment and inflation. If (one of) these variables show(s) a cyclical trend that matches the governmental periods, this could mean that governments in

[10] Since monthly observations are used, the observed highest value is not necessary the absolute highest value of the index – but that is not the point. The point is that these observations suggest that the stock market tended to peak right before the general elections.

fact do try to influence the economy in order to aim for re-election, but that this does not reflect on the (efficient) British stock market.

For both unemployment and inflation, similar one dummy regressions were estimated, to check for possible deviations in the second half or last year of the governmental terms. Regressions are estimated for both the entire period as for the sub-period 1979 – 1997. Also, equations for Labour and Conservatives only were estimated. For unemployment, hardly any usable results were found. The only significant ($\alpha = 0.05$) estimator that was found was the dummy variable for the last year of term, during the period 1979 – 1997: during these four terms of office unemployment was on average 0.64% in the last year of the term. So, during this periods unemployment rose, when elections came closer. Since all the order estimators for the equations that check for differences in unemployment were insignificant, we conclude that UK unemployment rates over the past 40 years do not suggest the presence of a political cycle.

However, when (yearly) inflation rates are analyzed, a pattern following the UK election dates becomes visible. Table 9b summarizes the main results of each regression estimation on UK yearly inflation rates. As can be seen for both the entire sample as for all the subsamples inflation is significantly lower in the second half and in the last year of a governmental term. With no exception, estimated beta is lower – indicating a higher difference – for the dummy variable for last year of term, compared to the dummy for second half of term.

Table 9b: Regression estimators for election cycle in (yearly) inflation rates

	Constant	β	
Entire period: 1965-2008			
Dummy for 2nd half	7.60%	-1.61%	***
Dummy for last year	7.32%	-2.16%	***
Labour in office			
Dummy for 2nd half	8.00%	-2.26%	**
Dummy for last year	7.52%	-2.60%	**
Conservatives in office			
Dummy for 2nd half	7.27%	-1.07%	**
Dummy for last year	7.15%	-1.80%	***
1979 - 1997 (Conservatives)			
Dummy for 2nd half	6.99%	-1.29%	**
Dummy for last year	6.96%	-2.77%	***

*** and ** indicate beta's significance at 1%- and 5%-level.

Looking at the table (and at all the individual regression estimations, Appendix) one can only conclude that there has been a political business cycle in UK inflation rates, with relatively high inflation in the years after an election, falling rates in the second half of a governmental term and inflation rates that reach the trough close to election time. The cycle follows the pattern as predicted by the theory in section 3.3. Important to mention: these results are not only significant in statistical terms, but also from an economical point of view: when talking about inflation rates a deviation of two percentage points is high, especially when it appears during a (each) governmental period. These results are contrary to Hudson et al. (1998), as the RPI was one of the five economic indicators for which they found no significant differences between the first and second half of the terms of office.

As table 9b shows, there are significant differences for the entire period, the sub period 1979 – 1997 as well as for the periods of Labour and Conservative administrations. As the table shows, the deviation of the inflation rate is larger under Labour than under Tory: for Labour both the constants as the betas are higher. But, the betas are so much higher, that inflation in the second term or last year is even lower under Labour than under Tory. So, in the first half of governmental terms inflation rates are (in absolute terms) higher under Labour, while in the second half and last year these rates are lower (again, in absolute terms) under Labour. These results are remarkable, because (as was mentioned earlier this chapter) in the traditional difference between Labour as the party of workers and the Conservatives as the party of capital, the Conservatives are said to focus on inflation, while Labour should mainly aim at low unemployment. There are several potential explanations for this conclusion: it could mean that the traditional aims in both parties' policy no longer hold, or that Labour has more efficient manners to decrease inflation. Explaining symptoms like this one is, however is no financial but rather a political question.

CHAPTER 10: Conclusion

After performing all the numerical and statistical analyses, now it should be possible to answer this thesis' main questions and to draw the final conclusions. First, the analysis of stock market returns under the different parties politics will be treated.

In Chapter 6, a first exploration was done by analyzing nominal stock market returns. In times of a Labour Prime Minister, average nominal returns were 0.49% per month, versus 1.02% per month in times of a Conservative Party domination. Not only were nominal returns under a Conservative government higher: also they were shown to be less volatile, than the nominal returns when Labour governed the country. From an investor's point of view these results are very interesting, for they contradict that returns and risk come hand in hand. Since the periods of Tory reign provide both higher returns and lower risk, the traditional trade-off between (higher) returns and (lower) risk is redundant. Despite the economic significance of these results, no statistical significance was found in these differences.

The next step in investigating the political policy theory was converting the nominal returns to excess returns, by subtracting a 'risk free' T-Bill rate. After all, money is not for free. Because the T-Bill rate is significantly higher in times of a right-wing government, the difference in excess returns is smaller than the difference in nominal returns. But despite the lower risk free rate under a left wing government, the market did not pay a (positive) risk premium in these times. While excess returns under Tory were 0.26% per month (3.2% per annum), under Labour the stock market yielded negative excess returns: -0.04% per month (-0.4% per annum). However, this difference of almost 4 percentage points in yearly excess returns is not statistically significant.

Of course, stock market returns can not be explained by politics only. Therefore, in Chapter 8 several (macroeconomic) control variables were included in the analysis. Figures on inflation, unemployment, the type of monetary policy and the yield curve should be able to filter out many 'noise' that was previously attributed to politics. These control variables should correct for economic circumstances. This analysis showed opposite results to the previous findings. With the inclusion of the control variables a significant difference in stock market returns between times of Labour and Tory was found. Correcting for the above mentioned

macroeconomics variables, in times of a Labour government the stock market on average yielded 3.8 percentage point higher excess returns per month compared to under a Conservative government. This can be interpreted as consistent 'surprise' excess returns, as these extra returns are not expected, based on economic circumstances. Since the beta estimator is statistically significant, it can be stated that if equal economic circumstances would be assumed, the stock market would perform better under Labour. Of course, this assumption is far from realistic.

The other economic theory that was applied to the British stock market was the political business cycle theory. Despite several indications that the stock market performed better in the late years of a governmental term and that it tended to peak near election time, no statistical significant differences were found between either nominal or excess returns in the first half, the second half or the last year of the considered governmental terms. But, for the inflation rate significant differences were found: for all considered samples inflation is significantly lower in the second half and the last year of a governmental term, compared to the rest of that term. So, that governments try to aim at favorable economic circumstances at election time through their policies can be stated. The fact that there is no cyclical movements in stock markets around governmental periods can be explained by the stock markets' efficiency.

Last to mention, which points could be subject to future investigation? From an investment point of view, it could be interesting to differentiate between stocks of different sectors: do some sectors perform better in times of a left- or right-wing government? Does an export-based sector perform better under Labour or Tory, and how can this be explained with for example exchange rate levels and tax policies? Also, it can be informative to consider other asset classes besides just stocks: how do different bonds, real estate or commodities perform under the different governments?

From a political-economist's point of view, it might be more appealing to further investigate the election cycle: do figures on government expenditures, awarded subsidies or tax receivings support or deny the political business cycle theory?

References

Alesina, A. (1987). Macroeconomic policy in a two party system as a repeated game. *Quarterly Journal of Economics*, 102, 651-678.

Alesina, A., Sachs, J. (1988). Political parties and the business cycle in the United States, 1948-1984. *Journal of Money, Credit and Banking*, 20, 63-82.

Beyer, S.B., Jensen, G.R., Johnson, R.R. (2004). Don't Worry About the Election. Just watch the Fed. *The Journal of Portfolio Management*, 31, 101-109.

Bodie, Z., Kane, A., Marcus, A.J. (2005). *Investments (6th edition)*. Singapore: McGraw-Hill.

Bofinger, P. (2001). *Monetary Policy*. Oxford, England: Oxford University Press.

Campbell, S.D., Li, C. (2004). Alternative Estimates of the Presidential Premium. *Federal Reserve Board, Washington DC: Finance and Economics Discussions Series*.

DeFusco, R.A., Geppert, J.M., Zorn, T.S. (2005). Is There a Presidential Puzzle? *Unpublished*.

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

Downs, A. (1957). *An Economic Theory of Democracy*. New York: Harper and Row.

Fair, R. (1982). The effect of economic events on votes for president: 1980 results. *Review of Economics and Statistics*, 64, 159-173.

Fair, R. (1996). The effect of economic events on votes for president: 1992 update. *Political Behavior*, 5, 119-139.

Gärtner, M. (2003). *Macroeconomics*. Harlow, England: Pearson Prentice Hall.

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

Gärtner, M. and Wellershoff, K. W. (1999). Theories of political cycles: lessons from the American stock market. *Rivista Internazionale di Scienze Economiche e Commerciali: RiSEC*, 46, 613-630.

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

Johnson, R.R., Chittenden, W. and Jensen, G. (1999). Presidential Politics, Stocks, Bonds, Bills, and Inflation. *Journal of Portfolio Management*, 26, 27-31.

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, 780-802.

Malkiel, B. (1996). *A Random Walk Down Wall Street (6th edition)*. New York: W.W. Norton.

Nofsinger, J.R. (2007). Social mood: The stock market and political cycles. *The Journal of Socio-Economics*, 36, 734-744.

Nordhaus, W.D. (1975). The Political Business Cycle. *Review of Economic Studies*, 42, 169-190.

Reusch, Q. and van Dijk, D. (2008). Een politieke premie op de Nederlandse aandelenmarkt. *Economisch Statistische Berichten*, 93, 108-110.

Riley, W., Luksetich, W. (1980). The market prefers republicans: myth or reality? *Journal of Financial and Quantitative Analysis*, 15, 541-560.

Santa-Clara, P., Valkanov, R. (2003). The Presidential Puzzle: Political Cycles and the Stock Market. *The Journal of Finance*, 58, 1841-1872.

Wooldridge, J.M. (2003). *Introductory Econometrics: A Modern Approach*. Ohio, United States: Thomson South-Western.

Websites:

- British National Statistics Online: http://www.statistics.gov.uk
- Financial Times Online: http://www.ft.com
- The Labour Party Online: http://www.labour.org.uk/home
- The Conservative Party Online: http://www.conservatives.com/

Databanks:

- DSI Data Service & Information Databank: International Monetary Fund, World Statistics
- Thomson Datastream

Appendix

Appendix A: Appendix to Chapter 6

Appendix A1: Estimation of nominal returns with political dummy variable

Dependent variable: Monthly nominal returns

Observations 522

	Coefficient	p-value
Constant	0.0049	0.19
Dummy Conservative	0.0053	0.32
R-squared	0.002	
Adjusted R-squared	0.000	

Appendix B: Appendix to Chapter 7

Appendix B1: Estimation of treasury bill rate for both political dummy variables

Dependent variable: Treasury bill rate per annum

Observations 519

	coefficient	p-value
Dummy Labour	6.56	0.00
Dummy Conservative	9.50	0.00
R-squared	0.212	
Adjusted R-squared	0.210	

Appendix B2: Estimation of monthly excess returns with a political dummy variable

Dependent variable: Monthly excess returns

Observations 522

	coefficient	p-value
Constant	-0.0004	0.93
Dummy Conservative	0.0030	0.57
R-squared	0.0006	
Adjusted R-squared	-0.0013	

Appendix C: Appendix to Chapter 8

Appendix C1: Estimation of monthly excess returns with a political dummy variable for periods 1971-2008 and 1975-2008

Dependent variable: Monthly excess returns, 1971-2008

Observations 450

	coefficient	p-value
Constant	0.0028	0.4666
Dummy Labour	-0.0032	0.5873
R-squared	0.0006	
Adjusted R-squared	-0.0016	

Dependent variable: Monthly excess returns, 1975-2008

Observations 402

	coefficient	p-value
Constant	0.0038	0.3535
Dummy Conservative	-0.0001	0.9826
R-squared	0.0000	
Adjusted R-squared	-0.0025	

Appendix C2: Estimation of inflation rate with a political dummy variable

Dependent variable: Yearly inflation rate

Observations 521

	coefficient	p-value
Constant	674	0.00
Dummy Labour	-0.00	0.38
R-squared	0.0015	
Adjusted R-squared	-0.0004	

Appendix C3: Estimation of unemployment rate with a political dummy variable

Dependent variable: Unemployment rate
Observations 449

	coefficient	p-value
Constant	3.37	0.00
Dummy Conservative	3.82	0.00
R-squared	0.4476	
Adjusted R-squared	0.4464	

Appendix C4: Estimation of excess returns with dummy for expansionary monetary policy

Dependent variable: Monthly excess returns
Observations 510

	coefficient	p-value
Constant	-0.0110	0.0049
Dummy for expansionary monetary policy	0.0227	0.0000
R-squared	0.0347	
Adjusted R-squared	0.0328	

Appendix C5: Estimations of excess returns, with interaction variables of political dummies, and dummies for monetary policy types

Dependent variable: Monthly excess returns
Observations 510

	coefficient	p-value
Constant	0.0082	0.1238
Expansionary & Conservative	0.0067	0.3590
Restrictive & Conservative	-0.0208	0.0073
Restrictive & Labour	-0.0177	0.0202
R-squared	0.0366	
Adjusted R-squared	0.0309	
F-statistic	6.4110	0.0003

Dependent variable: Monthly excess returns

Observations 510

	coefficient	p-value
Constant	-0.0095	0.0804
Expansionary & Conservative	0.0244	0.0010
Expansionary & Labour	0.0177	0.0202
Restrictive & Conservative	-0.0031	0.6934
R-squared	0.0366	
Adjusted R-squared	0.0309	
F-statistic	6.4110	0.0003

Appendix C6: Estimation of absolute value of excess returns, and excess returns at T-1

Dependent variable: Absolute value of montlhy excess returns

Observations 521

	coefficient	p-value
Constant	0.0347	0.0000
Abs. Excess returns (T-1)	0.2043	0.0000
R-squared	0.0415	
Adjusted R-squared	0.0396	

Appendix C7: Estimation of excess returns with control variables

Dependent variable: Monthly excess returns

Observations 401

	coefficient	p-value	
Constant	-0.0295	0.0179	**
Dummy Labour	0.0384	0.0146	**
Dummy for high unemployment	0.016	0.1763	
Dummy for low unemployment	-0.0262	0.1023	
Yearly inflation rate	0.1702	0.0034	***
Dummy for inverted yield curve	0.0022	0.7503	
Dummy for expansionary monetary policy	0.0191	0.0027	***
R-squared	0.0594		
Adjusted R-squared	0.0451		
F-statistic	4.1500	0.0005	***

Appendix C8: Estimation of excess returns with control variables, without dummy for expansive monetary policy

Dependent variable: Monthly excess returns

Observations 401

	coefficient	p-value
Constant	-0.0270	0.0320
Dummy Labour	0.0454	0.0038
Dummy for high unemployment	0.0198	0.0960
Dummy for low unemployment	-0.0290	0.0731
Yearly inflation rate	0.1836	0.0017
Dummy for inverted yield curve	0.0098	0.1322
R-squared	0.0377	
Adjusted R-squared	0.0255	
F-statistic	3.0964	0.0094

Appendix D: Appendix to Chapter 9

Appendix D1: Estimations checking for elections cycle in nominal and excess returns

Dependent variable: Monthly nominal returns
Observations 470

	Coefficient	p-value
Constant	0.0083	0.0391
Dummy for 2nd half of term	-0.0014	0.8150
R-squared	0.0001	
Adjusted R-squared	-0.0020	

Dependent variable: Monthly nominal returns
Observations 470

	Coefficient	p-value
Constant	0.0086	0.0090
Dummy for last year of term	-0.0041	0.5514
R-squared	0.0008	
Adjusted R-squared	-0.0014	

Dependent variable: Monthly excess returns
Observations 470

	Coefficient	p-value
Constant	0.0017	0.6772
Dummy for 2nd half of term	-0.0013	0.8185
R-squared	0.0001	
Adjusted R-squared	-0.0020	

Dependent variable: Monthly excess returns

Observations 470

	Coefficient	p-value
Constant	0.0020	0.5521
Dummy for last year of term	-0.0040	0.5580
R-squared	0.0007	
Adjusted R-squared	-0.0014	

Appendix D2: Estimations checking for elections cycle in Labour Party times

Dependent variable: Monthly nominal returns in times of Labour

Observations 210

	Coefficient	p-value
Constant	0.0046	0.4924
Dummy for 2nd half of term	-0.0002	0.9857
R-squared	0.0000	
Adjusted R-squared	-0.0048	

Dependent variable: Monthly nominal returns in times of Labour

Observations 210

	Coefficient	p-value
Constant	0.0053	0.3410
Dummy for last year of term	-0.0033	0.7783
R-squared	0.0004	
Adjusted R-squared	-0.0044	

Dependent variable: Monthly excess returns in times of Labour
Observations 210

	Coefficient	p-value
Constant	-0.0012	0.8578
Dummy for 2nd half of term	0.0005	0.9625
R-squared	0.0000	
Adjusted R-squared	-0.0048	

Dependent variable: Monthly excess returns in times of Labour
Observations 210

	Coefficient	p-value
Constant	-0.0002	0.9714
Dummy for last year of term	-0.0035	0.7661
R-squared	0.0004	
Adjusted R-squared	-0.0043	

Appendix D3: Estimations checking for elections cycle in Conservative Party times

Dependent variable: Monthly nominal returns in times of Conservative
Observations 260

	Coefficient	p-value
Constant	0.0115	0.0187
Dummy for 2nd half of term	-0.0025	0.7160
R-squared	0.0005	
Adjusted R-squared	-0.0034	

Dependent variable: Monthly nominal returns in times of Conservatives

Observations 260

	Coefficient	p-value
Constant	0.0113	0.0042
Dummy for last year of term	-0.0048	0.5584
R-squared	0.0013	
Adjusted R-squared	-0.0025	

Dependent variable: Monthly excess returns in times of Conservatives

Observations 260

	Coefficient	p-value
Constant	0.0041	0.3991
Dummy for 2nd half of term	-0.0029	0.6747
R-squared	0.0007	
Adjusted R-squared	-0.0041	

Dependent variable: Monthly excess returns in times of Conservatives

Observations 206

	Coefficient	p-value
Constant	0.0037	0.3468
Dummy for last year of term	-0.0045	0.5827
R-squared	0.0012	
Adjusted R-squared	-0.0027	

Appendix D4: Estimations checking for elections cycle in unemployment rate

Dependent variable: Unemployment rate
Observations 413

	coefficient	p-value
Constant	5.76	0.0000
Dummy for 2nd half of term	0.02	0.9345
R-squared	0.0000	
Adjusted R-squared	-0.0024	

Dependent variable: Unemployment rate
Observations 413

	coefficient	p-value
Constant	5.77	0.0000
Dummy for last year of term	-0.02	0.9554
R-squared	0.0000	
Adjusted R-squared	-0.0024	

Dependent variable: Unemployment rate in times of Labour
Observations 159

	coefficient	p-value
Constant	3.49	0.0000
Dummy for 2nd half of term	0.01	0.9122
R-squared	0.0000	
Adjusted R-squared	-0.0062	

Dependent variable: Unemployment rate in times of Labour
Observations 159

	coefficient	p-value
Constant	3.55	0.0000
Dummy for last year of term	-0.23	0.1252
R-squared	0.0149	
Adjusted R-squared	0.0086	

Dependent variable: Unemployment rate in times of Conservatives
Observations 254

	coefficient	p-value
Constant	7.28	0.0000
Dummy for 2nd half of term	-0.18	0.6056
R-squared	0.0011	
Adjusted R-squared	-0.0029	

Dependent variable: Unemployment rate in times of Conservatives
Observations 254

	coefficient	p-value
Constant	7.18	0.0000
Dummy for last year of term	0.03	0.9341
R-squared	0.0000	
Adjusted R-squared	-0.0039	

Appendix D5: Estimations checking for elections cycle in inflation rate

Dependent variable: Inflation rate
Observations 470

	coefficient	p-value
Constant	7.60	0.0000
Dummy for 2nd half of term	-1.61	0.0014
R-squared	0.0217	
Adjusted R-squared	0.0196	

Dependent variable: Inflation rate 470
Observations

	coefficient	p-value
Constant	7.32	0.0000
Dummy for last year of term	-2.16	0.0003
R-squared	0.0279	
Adjusted R-squared	0.0258	

Dependent variable: Inflation rate in times of Labour
Observations 210

	coefficient	p-value
Constant	8.00	0.0000
Dummy for 2nd half of term	-2.26	0.0141
R-squared	0.0286	
Adjusted R-squared	0.0240	

Dependent variable: Inflation rate in times of Labour

Observations 210

	coefficient	p-value
Constant	7.52	0.0000
Dummy for last year of term	-2.60	0.0178
R-squared	0.0267	
Adjusted R-squared	0.0220	

Dependent variable: Inflation rate in times of Conservatives

Observations 260

	coefficient	p-value
Constant	7.27	0.0000
Dummy for 2nd half of term	-1.07	0.0397
R-squared	0.0162	
Adjusted R-squared	0.0125	

Dependent variable: Inflation rate in times of Conservatives

Observations 260

	coefficient	p-value
Constant	7.15	0.0000
Dummy for last year of term	-1.80	0.0032
R-squared	0.0331	
Adjusted R-squared	0.0294	

Appendix D6: Estimations checking for elections cycle in stock market returns, 1979-1997

Dependent variable: Monthly nominal returns: June, 1979 - April, 1997

Observations 215

	Coefficient	p-value
Constant	0.0099	0.0602
Dummy for 2nd half of term	0.0045	0.5468
R-squared	0.0017	
Adjusted R-squared	-0.0030	

Dependent variable: Monthly nominal returns: June, 1979 - April, 1997

Observations 215

	Coefficient	p-value
Constant	0.0118	0.0054
Dummy for last year of term	0.0012	0.8909
R-squared	0.0001	
Adjusted R-squared	-0.0046	

Dependent variable: Monthly excess returns: June, 1979 - April, 1997

Observations 215

	Coefficient	p-value
Constant	0.0020	0.7067
Dummy for 2nd half of term	0.0044	0.5531
R-squared	0.0017	
Adjusted R-squared	-0.0030	

Dependent variable: Monthly excess returns: June, 1979 - April, 1997
Observations 215

	Coefficient	p-value
Constant	0.0037	0.3832
Dummy for last year of term	0.0022	0.8075
R-squared	0.0003	
Adjusted R-squared	-0.0044	

Appendix D7: Estimations checking for elections cycle in unemployment and inflation rates, 1979-1997

Dependent variable: Unemployment rate: June, 1979 - April, 1997
Observations 215

	coefficient	p-value
Constant	8.01	0.0000
Dummy for 2nd half of term	0.11	0.6713
R-squared	0.0008	
Adjusted R-squared	-0.0038	

Dependent variable: Unemployment rate: June, 1979 - April, 1997
Observations 215

	coefficient	p-value
Constant	7.92	0.0000
Dummy for last year of term	0.64	0.0422
R-squared	0.0192	
Adjusted R-squared	0.0146	

Dependent variable: Yearly inflation rate: June, 1979 - April, 1997

Observations 215

	coefficient	p-value
Constant	6.99	0.0000
Dummy for 2nd half of term	-1.29	0.0335
R-squared	0.0210	
Adjusted R-squared	0.0165	

Dependent variable: Yearly inflation rate: June, 1979 - April, 1997

Observations 215

	coefficient	p-value
Constant	6.96	0.0000
Dummy for last year of term	-2.77	0.0001
R-squared	0.0677	
Adjusted R-squared	0.0633	