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The influence of political uncertainty on the UK stock market

An empirical investigation on FTSE 100 industry sectors

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Abstract

This paper examines the impact of political uncertainty on stocks across different industry sectors in the United Kingdom (UK) between 1997 and 2016. The research is performed under changing economic circumstances to account for interaction effects. The evidence in this paper suggests that the UK stock market experiences some influence of political uncertainty on volatility and equity risk premia between 1997 and 2016. The biggest impact of political uncertainty is found on volatility, which increases as political uncertainty becomes larger. Economic circumstances do up to some extent influence the impact of political uncertainty on the UK stock market. The interaction between political uncertainty and economic indicators is found to differ per industry in the UK.

Keywords: Stock market; political uncertainty; economic circumstances; United Kingdom

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Chapter 1 Introduction

November 9th 2016, the presidential elections in the US heavily influenced stock markets across the world. Right after Trump won the US elections financial markets incurred big losses. The Mexican peso, for example, lost thirteen percent in value. (NOS, 2016). Hardly two months later, Trump is seen to be very good for the stock market. Major Wall Street banks predict that the Republican-led Congress and Trump will get the job done and cut taxes and regulations (CNNMoney, 2016).

The recent US elections is an example of how influential political uncertainty can be on the world wide stock markets. This is, however, not the only political event that seems to dominate the financial markets. Currently, financial markets seem to react to news about what governments around the world might do or have done. The referendum in Great Britain to leave the European Union (Brexit), for example, also made stock markets around the world tumble. Expectations are that political events in 2017 will also influence the financial markets. Chief market analyst at CMC Markets, Micheal Hewson, predicts that 2017 will be a rocky year that is all about political risk. With his statement, he aims at the elections in Germany and France, Italy's weak banks, Great Britain leaving the EU and Greece's debt (BBC, 2016).

With the expectation of 2017 being a rocky political year one might wonder what exactly the impact is of political uncertainty on financial markets. Especially for the UK, which on June 23th 2016 voted to leave the European Union (EU), this question is of major importance. UK stock markets experienced five straight days of gains in anticipation of the Brexit vote. Traders were betting on a remain vote of the UK and positioned accordingly (Sheffield, 2016). On June 24th 2016, it, however, became clear that UK citizens voted to leave the EU. This major political event wiped out over two trillion dollars of value worldwide (Wearden & Fletcher, 2016). The leave vote of the UK was only the start of the political uncertainty related to the Brexit. On March 29th 2017, markets reacted to Theresa May triggering Article 50, the formal mechanism through which to leave the EU. The triggering of article 50 provides the UK with two years to negotiate a deal to exit the EU.

When looking at recent political events and the reaction of financial markets to such events, it appears that political uncertainty influences financial markets. A growing number of empirical studies attempts to quantify the influence of political uncertainty on financial markets. For example, Kim and Mei (2001) analyse the impact of political risk on stock returns in Hong Kong. Their empirical findings show that market volatility and returns are significantly influenced by the political developments in Hong Kong.

Chau, Deesomsak and Wang (2013) studied the impact of political uncertainty on stock market volatility in the Middle East and North African (MENA) countries. They find that the volatility of Islamic indices significantly increase during periods of political unrest, whereas no or little significant influence is found on volatility in

conventional markets. When comparing these results to benchmark indices it is concluded that changes in volatility of Islamic indices were the result of political tension.

Pástor and Veronesi (2013) developed a general equilibrium model in which stock prices react to political news. Their model implies that political uncertainty commands a risk premium. The model suggest that the magnitude of the risk premium is larger in weaker economic conditions. Furthermore, it is suggests that political uncertainty makes stocks more correlated and volatile, especially in weak economic circumstances. Empirical data on the US stock market are consistent with the proposed model.

These is a limited amount of research on the impact of political uncertainty on financial markets. Although there is a growing body of literature on this topic, there has not been previous research on the influence of political uncertainty on stocks across different industries. Furthermore, a limited amount of research exists on the impact of political uncertainty on financial markets in the UK. This research will contribute to the existing literature by examining the following question:

"What is the impact of political uncertainty on stocks across different industries, under differing economic conditions, between 1997 and 2016 in the UK?"

Knowing how political uncertainty affects the UK stock market is not only important because of political unrest caused by the Brexit. With Trump being president, elections in several European countries, the still unsolved European debt crisis and IS spreading fear into the world, it is important to know how stock markets behave in times of political uncertainty. Looking into different industry sectors is an important part in understanding how stock market behaves in times of political unrest. One could for example expect that some industries, like basic materials, are less affected by political events than other industries, such as financials. If some industries are less affected by political uncertainty than others, this will give diversification opportunities for investors.

To answer the research question the impact of political uncertainty on stock volatility and equity risk premia in the UK is examined. This is done by investigating all companies that have been traded on the FTSE 100 index between 01-01-1997 and 31-12-2016. As a proxy for political uncertainty the Economic Policy Uncertainty Index (EPUI) of Baker, Bloom and Davis (2016) is used. As previous literature suggests that the impact of political uncertainty on financial markets is bigger during weak economic conditions, this paper will examine whether this holds for the UK stock market. Three different variables are used to proxy for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). First, the influence of economic circumstances on political uncertainty is examined to get a better understanding of both variables. After doing so, the impact of political uncertainty on the aggregate of all companies traded on the FTSE 100 is researched. Then, the companies are divided into ten groups, using the

Industrial Classification Benchmark (ICB), to examine the impact of political uncertainty across different industries.

In examining the research question several hypotheses are formed in the next chapter. These hypotheses are tested using linear regression analysis in Stata. More specifically, the framework developed by Pástor and Veronesi (2013) is used in this research. This framework allows to test the impact of political uncertainty on volatility and equity risk premia by providing eight different linear regression models. An elaboration on Pástor and Veronesi their empirical findings and model will be given in chapter two and three. In performing this research, the main period is split into two sub-periods to check for time varying effects. The periods researched range from 01-01-1997 to 21-12-2006, from 01-01-2007 to 31-12-2016 and from 01-01-1997 to 31-12-2016.

The findings of this paper suggest that political uncertainty is larger under weaker economic circumstances, when CLI is used as proxy of economic circumstances. No such effect is found when ESI and REC are used as a proxy of economic circumstances. The findings furthermore suggest that the UK stock market is impacted by political uncertainty between 1997 and 2016. Political uncertainty is mainly found to affect stock market volatility. Evidence suggests that the FTSE 100 becomes more volatile as political uncertainty rises. This impact of political uncertainty on volatility on the entire FTSE 100 does not depend on the state of the economy. When looking across sectors, higher political uncertainty leads to higher volatility in each sector, except health care. This result is found when ESI and CLI are taken as proxies of economic conditions. When REC is used as a proxy, only three out of ten sectors experience higher stock volatility as political uncertainty rises. Next to that, political uncertainty has a stronger effect on volatility in worse economic circumstances for the basic materials, consumer goods, utilities and financial sector, when CLI is used to proxy economic conditions. When ESI is used as a proxy, this effect is only found for the utilities sector. Eight out of ten sectors experience such an effect when REC is used as a proxy of economic circumstances.

Equity risk premia are less influenced by political uncertainty when looking at the entire FTSE 100. Only the three month equity risk premium on average decreases when political uncertainty increases, when REC is used as measure of economic circumstances. In all other cases no evidence is found of political uncertainty affecting the FTSE 100 between 1997 and 2016. Next to that, there is no evidence of a bigger impact of political uncertainty on equity risk premia under weaker economic circumstances between 1997 and 2016. When looking across sectors, direct equity risk premia of the oil & gas and basic materials sector on average demand a higher equity risk premium as political uncertainty increases. This result is found when REC is used as proxy for economic circumstances. The direct equity risk premium of no other sector is found to be influenced by political uncertainty. When ESI is used as proxy of economic circumstances, political uncertainty has a significant bigger negative impact on direct equity risk premia, under weaker economic conditions for the basic materials sector. A similar effect is found for the oil & gas, basic materials and industrials sector, when REC is a proxy of economic circumstances.

Finally, the results suggests that sectoral future equity risk premia do not experience any significant influence of changing political uncertainty, regardless what measure of economic conditions is used, between 1997 and 2016 in the UK. There is, however, evidence that three and six month equity risk premia of the technology sector do on average increase when political uncertainty increases under worsening economic conditions. For all other future equity risk premia no interaction effect of political uncertainty and economic circumstances is found.

The results of this research have several implications. First, this research partly contradicts previous literature, implying that the UK stock market behaves differently than some other markets. The biggest contradiction to previous literature is found when looking into direct equity risk premia. In contrast to previous literature this paper finds no or little evidence that direct equity risk premia fall when political uncertainty rises. Since the findings of this study partly contradict with previous literature, it is advisable for investors to first examine the impact of political uncertainty on a certain market before positioning their portfolio. Second, the results suggest that political uncertainty has a different impact on volatility and equity risk premia across sectors. For this reason, knowing the exact effect of political uncertainty on each sector is important for portfolio managers in order to diversify political risks.

The next chapter reviews literature, provides a thorough elaboration on the framework developed by Pástor and Veronesi (2013) and puts forward the hypotheses associated to this study. The third chapter describes the data and methodology used. Chapter four contains the main results and their interpretation. Finally, chapter five provides a summary, conclusions and future recommendations.

Chapter 2 Literature Review

This chapter will first review political uncertainty and its relation to economic circumstances. After doing so, this chapter will discuss previous research on the influence of political uncertainty on volatility and equity risk premia. Lastly, the influence of political uncertainty on volatility and equity risk premia will be linked to the state of the economy. Throughout the chapter hypothesis are formed, which are used to answer the research question.

2.1 Political uncertainty

The influence of political uncertainty on economic outcomes has a long history of public debate and research. Nowadays, with populism gaining followers, Trump unexpectedly getting elected as the president of the United States (US), national elections in four European countries in 2017 and the Brexit, the influence of political uncertainty on the economy is widely discussed again. Political uncertainty can be viewed in different ways. Perhaps the most common definition of political uncertainty is the uncertainty of government's policy choice. Pástor and Veronesi (2012), however, use a more detailed definition of political uncertainty. They view political uncertainty as the standard deviation of political costs (or benefits) incurred because of policy changes (Pastor & Veronesi, 2012). This paper will use Pástor and Veronesi (2012) their definition of political uncertainty. The reason for this choice being that the model of Pástor and Veronesi (2013) is used as a framework in this paper. Government's policy choice, in the definition of political uncertainty, is not necessarily the policy choice of the government of the UK but could also be the policy choice of another country affecting the UK.

There are two different effects of political uncertainty on the economy according to the Pástor and Veronesi(2013). On one side, political uncertainty could have a positive effect on the economy if the government properly anticipates to shocks. As governments generally intervene in hard times, investors believe that governments provide a protection, similar to a put option, on financial markets. Since political uncertainty is not fully diversifiable it could, on the other side, also have a negative effect on asset prices. When relating political uncertainty to the state of the economy, Pástor and Veronesi(2013) their theoretical framework implies that political uncertainty is dependent and endogenous on economic circumstances. When the economy is strong, political uncertainty is low because the government is expected to stay with its current policy. Under weak economic circumstances, however, there is high political uncertainty since a policy change is expected but it is not certain which policy will be incorporated. (Pástor & Veronesi, 2013)

Pástor and Veronesi (2012) explain why a policy change is more likely under weak economic circumstances. They find that a government changes its current policy if the government expects to obtain large benefits from changing the policy, and if the current policy is perceived to have a disadvantageous influence on profitability. This will generally happen in weak economic circumstances, as these are periods of unexpected low profitability. (Pastor & Veronesi, 2012)

The empirical findings of Pástor and Veronesi(2013) show a negative impact of economic conditions on political uncertainty. Implying larger political uncertainty under weaker economic circumstances. Based on these findings, the first hypothesis is formed as follows:

H1: Political uncertainty is larger under weaker economic circumstances between 1997 and 2016 in the UK.

2.2 The influence of political uncertainty on volatility

Pástor and Veronesi (2012) argue that a new policy, which incurs more uncertainty, raises volatility of companies their discount factor due to higher uncertainty in profitability. This leads to a higher demanded risk premium, more volatility in stock returns and a higher correlation among stock prices of firms. Volatility is also affected before a policy change occurs due to changes in investors' beliefs about the likelihood of a policy change and the impact of the current policy. (Pastor & Veronesi, 2012)

In line with their previous research, Pástor and Veronesi (2013) argue that volatility and correlation between stocks is higher when political uncertainty is higher. The reasoning behind this is that high political uncertainty means high uncertainty in political costs which makes asset prices more volatile. Next to that, political uncertainty affects every firm and thus cannot be completely diversified away. This non-diversifiable characteristic of political uncertainty makes stock prices more correlated in times of larger political uncertainty. The empirical tests done by Pástor and Veronesi (2013) confirm that stocks are more correlated and have a higher volatility when political uncertainty increases. (Pástor & Veronesi, 2013)

Kim and Mei (2001) examine the impact of political uncertainty on stock returns and volatility on the Hong Kong market. This is done using a components jump-volatility filter. This filter specifies dates with surprise, or jump, return movements which are connected to the announcements of political events. Their findings suggest that stock market volatility is influenced by political news. This influence is larger for negative political news than for positive news. (Kim & Mei, 2001)

Next to that, the influence of political uncertainty on major stock markets in the Middle East and North African (MENA) countries is examined by Chau et. al. (2013). Political uncertainty in this paper is mainly related to the Arab Spring. Islamic stock market indices[1] experience a significant increase in volatility when political uncertainty becomes larger. For conventional stock indices, on the other hand, an increase in political uncertainty has little or no impact on volatility. (Chau, Deesomsak, & Wang, 2014)

[1] Islamic stock market indices prohibit certain sectors and companies which are seen as "unethical" and companies that have excessive leverage or derive significant income from interest (Chau, Deesomsak, & Wang, 2014).

Finally, Beaulieu et. al. (2005) examine the effect of political uncertainty related to the possible independence of Quebec on volatility. This study also shows that stock volatility increases when political uncertainty increases. (Beaulieu, Cosset, & Essaddam, 2005). As most of the discussed literature suggests that larger political uncertainty leads to higher stock market volatility, hypothesis two is formed as follows:

H2: Stock volatility is higher in times of larger political uncertainty between 1997 and 2016 in the UK.

2.3 The influence of political uncertainty on equity risk premia

This section will first look into the influence of political uncertainty on direct stock returns. After doing so, the effect of political uncertainty on equity risk premia is considered. The reason that both the influence of political uncertainty on future equity risk premia and direct stock returns is considered, is that an opposing reaction for the two are expected. Intuition suggests that when political uncertainty increases on *t=0*, stock prices immediately fall at *t=0* due to higher uncertainty in companies their profitability. This will lead to a direct decrease in equity risk premia when only the current period is considered. On the other hand, it is expected that the future equity risk premium, which does not take into account the direct stock reaction, will increase. An increase in future equity risk premium is expected due to higher risk associated with holding stocks. Past literature is discussed to get a better understanding of the relationship between stock return, equity risk premia and political uncertainty.

Pástor and Veronesi (2012) examine how stock prices are affected by changes in government policy. They suggest that there are two opposing forces on stock prices when there is a change in government policy. On the one hand, policy changes increase a companies expected profitability. This effect exists because a government only implements a new policy when the old policy is perceived to be unfavourable for profitability and when a benefit is expected from implementing the new policy. On the other hand, discount rates of companies increase due uncertainty about the new policy's effect on profitability. The empirical findings of Pástor and Veronesi (2012) suggest that stock prices, on average, fall when a policy change is announced. Thus, implying that the discount rate effect is strongest. (Pastor & Veronesi, 2012)

Amihud and Wohl (2003) look at the influence of politics on the stock market from an entirely different angle. This paper considers the influence of political uncertainty surrounding Saddam Hussein on stock prices. The result of their research is important since these findings might give an indication on how political uncertainty related to IS influences the stock market. Amihud and Wohl (2003) their results suggest that an increase in the likelihood of the fall of Saddam, before the war, had a weak negative effect on the US stock market. This negative effect was caused by the costs of entering into a war. During the war, however, an increased likelihood of the fall of Saddam let to a strong increase in US stock prices. This strong positive reaction is explained by an

increased likelihood that the war ends and by the benefits associated to winning the war. (Amihud & Wohl, 2004)

Based on both the findings of Pástor and Veronesi (2012) and Amihud and Wohl (2003) a negative relation between political uncertainty and direct stock return is expected. Implying that the direct equity risk premium falls when political uncertainty raises. Based on this, the third hypothesis is formed:

H3:Larger political uncertainty has a negative influence on direct equity risk premia between 1997 and 2016 in the UK.

When moving to the influence of political uncertainty on future equity risk premia, the paper of Pástor and Veronesi (2013) is used as theoretical guidance. According to the model of Pástor and Veronesi (2013), the equity risk premium consists out of three components: capital shocks, impact shocks and political shocks. Where capital shocks are defined as shocks in aggregate capital that have a direct effect on stock prices. Impact shocks, on the other hand, are shocks in aggregate capital that influence stock prices indirectly, by a revision of investors beliefs about the current government policy. The first two shocks are of an economic sense and ask for an economic risk premia. Political shocks, on the other hand, demand a premium which is referred to as the political risk premium. More specifically, the political risk premium compensates for uncertainty about future government policies. When performing empirical tests on the justification of this model, the findings do not confirm the existence of a political risk premium. (Pástor & Veronesi, 2013)

Since current political events do suggest that political uncertainty influences stock prices it important to look further into past research. Perotti and Oijen (2001) examine the impact of privatization on stock markets of developing countries. This is done by linking political risk to excess returns. The results suggests that political uncertainty decreases when there is political commitment to privatization. Next to that, the findings suggest that a decrease in political uncertainty has a strong positive influence on excess stock returns. These findings contradict the predictions of the Pástor and Veronesi (2013) framework. (Perotti & van Oijen, 2001)

The previously mentioned study of Beaulieu et. al. (2005) examines the influence of political uncertainty, related to the possible independence of Quebec, on equity risk premia. Consistent with the empirical results of Pástor and Veronesi (2013) there is no significant effect found of political uncertainty on equity risk premia. From this result the conclusion is drawn that political risk can be diversified away. This result contradicts with Pástor and Veronesi (2013) their model, which is used as a framework for this paper. To test once more whether political risk can be diversified away, the fourth hypothesis is formed as follows:

H4:Larger political uncertainty demands a higher future equity risk premium between 1997 and 2016 in the UK.

2.4 The influence of political uncertainty under differing economic circumstances

Pástor and Veronesi (2013) their model predicts that the influence of political uncertainty on asset prices is affected by the state of the economy. As discussed earlier, political uncertainty is expected to be larger when the economy is in a worse state. This larger political uncertainty makes stocks more volatile under weak economic circumstances. Reason being that political risk cannot be completely diversified away and that high political uncertainty means high uncertainty in political costs. When empirically testing the interaction effect of political uncertainty and economic circumstances on volatility, Pástor and Veronesi (2013) find a significant larger effect of political uncertainty on volatility during weak economic circumstances. (Pástor & Veronesi, 2013)

In weak economic circumstances, the equity risk premium is affected by two opposing influences. Uncertainty about what new policy the government might adopt boosts the equity risk premium on the one hand. On the other hand, the equity risk premium is reduced because of the value of the put protection that governments offer. Pástor and Veronesi (2013) predict that economic shocks drive the equity risk premium under strong economic circumstances. Under weak economic circumstances the model predicts a substantial political risk premium. This effect fades when the economy becomes stronger. When examining this prediction empirically Pástor and Veronesi (2013) find weak support of their model. For six out of fifteen regressions a significant higher political risk premium is found in weaker economic conditions, on a five percent level. (Pástor & Veronesi, 2013)

Pástor and Veronesi (2012) find that policy changes especially have a negative effect on stock prices after shallow or short economic downturns. After deep or long downturns stock prices, stocks experience small positive effects of a policy change. (Pastor & Veronesi, 2012) Based on the model of Pástor and Veronesi (2013), the fifth hypothesis is formed:

H5:Political uncertainty has a bigger impact on stock volatility and equity risk premia in weaker economic circumstances between 1997 and 2016 in the UK.

Chapter 3 Data And Methodology

The first part of this chapter discusses the data used to examine the influence of political uncertainty on stocks across different industries in the UK. The second part provides a thorough explanation of the methodology used to test for the hypotheses stated in the previous chapter.

3.1 Data

To identify the effects of political uncertainty on the UK stock market, a dataset is constructed using multiple sources. The UK stock market examined in this paper is the FTSE 100. Both daily and monthly closing stock prices and company sector information are collected from DataStream. To proxy for political uncertainty, data is collected from the Economic Policy Uncertainty Index (EPUI) of Baker, Bloom and Davis (2016). Furthermore, the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC) are used to proxy for economic conditions.

3.1.1 Market data

In this paper, the FTSE 100 is used to examine the influence of political uncertainty on stocks across different industries in the UK. The FTSE 100 is chosen to proxy for the UK stock market as this index consists of the hundred biggest companies listed on the London Stock Exchange (LSE). For this reason, the FTSE 100 is broadly seen as a good indicator of major firms listed in the UK. Besides that, another advantage of the FTSE 100 is that it gives a good reflection of international and economic events (The Share Centre, 2017). Another index that would have been interesting to use is the FTSE 350. This index consists of eighteen industry sector indices (FTSE, 2017). Although examining up to eighteen different industries would have been interesting, I have chosen not to perform such a research, as this is too big a research to be performed within the timeframe of writing this paper. As I also want to examine the impact of political uncertainty on the market as a whole, I chose to examine the FTSE 100 as a whole and to classify the companies within the FTSE 100 into ten different industries. This seemed as a more appropriate solution than choosing several, but not all, industry sector indices from the FTSE 350 and examining the FTSE 350 as a whole.

All companies on the FTSE 100 are divided into ten different industries to examine the effects of political uncertainty on stocks across different industries. More specifically, the companies in the FTSE 100 are divided into different industries using the Industrial Classification Benchmark (ICB) from DataStream. This classification method is appropriate as it is the result of a merger of the industrial classification of Dow Jones and FTSE and classifies most companies examined. The ICB splits the companies in ten different industry groups, being: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. In the remainder of this paper these industries will be referred to as: OG, BM, Ind, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. When there is no ICB classification available for a company, this company is manually dividend into one of the industry sectors.

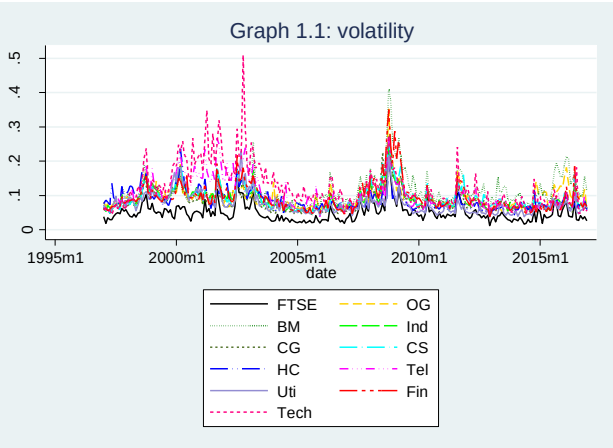
To make sure that the results are as reliable as possible, a long period of data is used. For all firms, that have been on the FTSE 100 between 1997 and 2016, data is used from 01-01-1997 to 31-12-2016, or on the first available date till when a firm is declared to be dead. When stock prices for a company stop moving entirely, this period is deleted from the dataset. This length of data is chosen because the oldest available data from the EPUI starts in 1997. Since twenty years is long time period, the dataset is split into two groups to control for time varying effects. Moreover, tests will be done using data from 01-01-1997 to 31-12-2006, from 01-01-2007 to 31-12-2016 and using the overall sample period. Furthermore, all companies that have been on the FTSE 100 between 1997 and 2016 are examined to overcome biases due to firm related effects, e.g. bankruptcy or mergers.

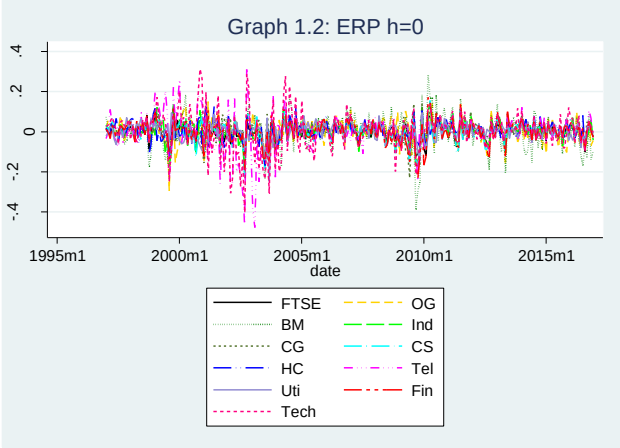
Since EPUI, ESI and CLI are only available on a monthly basis volatility, risk premia and REC will be denoted on a monthly basis to assure consistency among the different variables. Market information from DataStream will be used to calculate realized returns, volatility and equity risk premia. Stock returns are calculated from daily and monthly adjusted closing prices extracted from DataStream. In line with the method used by Pástor and Veronesi (2013) realized volatility is computed from daily returns of the company within the given month. The volatility of the entire group is calculated as the average of the volatility of all companies within the given group, for the specified date. The future equity risk premium is measured as the realized future excess market return denoted by $R_{(t+1,t+h)}$. The excess market return is computed by taking the cumulative return on the portfolio over months $t+1$ through $t+h$ and subtracting cumulative return of the one-month UK T-bill. More specifically, the cumulative return is calculated using the one month bid yield on the Thomson Reuters United Kingdom Government Benchmark. In this paper $h = 3$, 6 and 12 are considered, to examine both the direct and future effect of political uncertainty on equity risk premia. The direct equity risk premium, $h=0$, is calculated in a slightly different way than the future equity risk premia. The direct equity risk premium, denoted by $R_{(t)}$, is computed by taking the stock return on $t=0$ and subtracting cumulative return of the one-month UK T-bill on $t=0$.

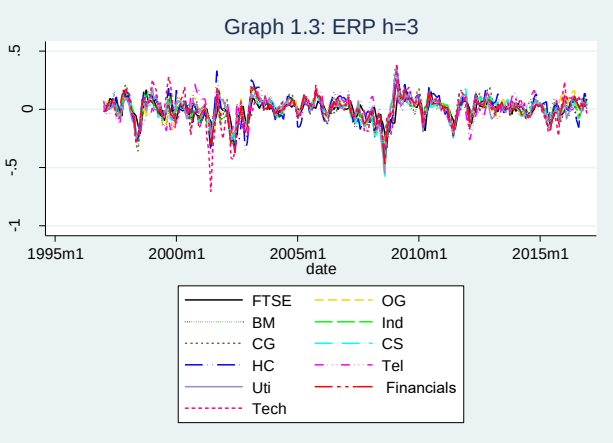
In graph 1.1 to 1.5 the volatility and equity risk premia of each industry and the FTSE 100 is shown. These figures provide a clear overview on how these variables move for each industry, over time. When looking at figures 1.1 through 1.5 it is especially notable that the technology sector shows higher volatility than the other industries. When looking at the direct equity risk premium (ERP h=0), the telecommunication industry shows most movement. All in all, the ten different industries and the FTSE 100 seem to move quite similar over time.

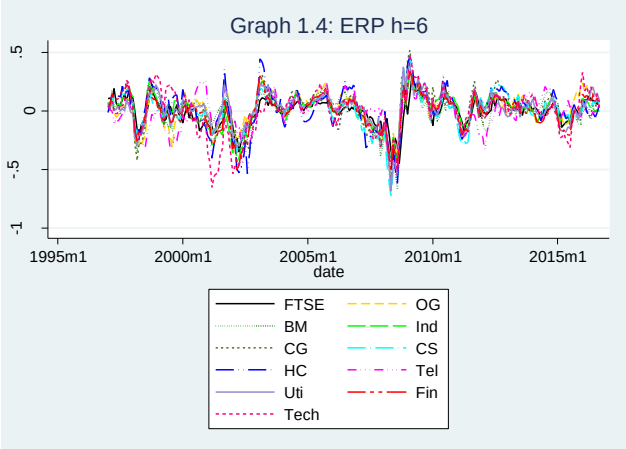
Graph 1.1 to 1.5 Volatility and equity risk premia per industry over time

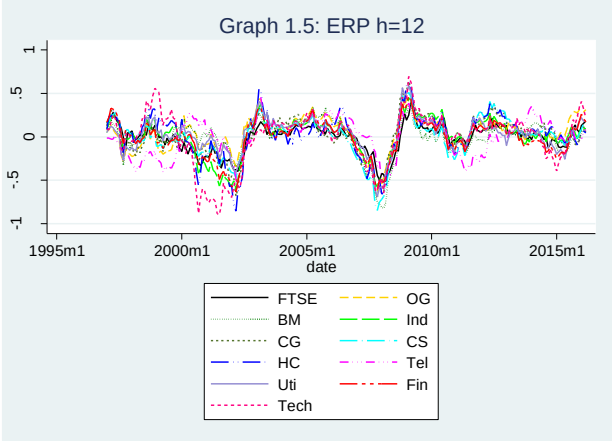
These graphs show the movement in volatility and equity risk premia for companies in OG, BM, IND, CG, CS, HC, Tel, Uti, Fin, Tech and the FTSE from 01/01/1997 to 31/12/2016. Realized volatility is computed from daily returns of the company within the given month. The volatility of the entire group is calculated as the average of the volatility of all companies within the given group, for the specified date. The equity risk premium is computed by taking the cumulative return on the portfolio over months *t+1* through *t+h* and subtracting cumulative return of the one-month UK T-bill. The direct equity risk premium, $R_{(t)}$, is computed by taking the return on the portfolio on *t=0* and subtracting the return of the one-month UK T-bill. Graph 1.1 shows the monthly volatility of stock closing prices per industry over time. Graph 1.2 to 1.5 show the equity risk premium demanded for holding a stock in a specific sector for h=0, 3, 6 and 12, respectively.











3.1.2 Measures of political uncertainty and economic circumstances

The Economic Policy Uncertainty Index (EPUI) will be used to proxy for political uncertainty. The EPUI is an index constructed to measure policy-related economic uncertainty. The index is made up of three underlying components. One component proxies for uncertainty by using disagreement among economic forecasters. The second component quantifies newspaper coverage of policy-related economic uncertainty. A third component reflects the amount of federal tax code provisions set to expire in future years (Baker, Bloom, & Davis, 2016).

The economic sentiment indicator (ESI) from Eurostat will be used to measure for economic strength. The ESI is constructed from five sectoral confidence indicators with different weights: the construction confidence indicator, retail trade indicator, consumer confidence indicator, services confidence indicator and the industrial confidence indicator. These several indicators have a weight of 5%, 5%, 20%, 30% and 40% in the ESI, respectively. The ESI is calculated as an index, over a fixed standardised sample period, with a standard deviation of 10 and a mean value of 100 (Eurostat, 2016). This ESI is available on a monthly basis for all countries expect Ireland (European Commission, 2017).

Another monthly measure of economic conditions used is the amplitude adjusted Composite Leading Indicator (CLI) of the OECD. The CLI measures business cycles and turning points in the deviation-from-trend series. For the UK the GDP is used as a reference indicator of turning points. The CLI of the UK is calculated as the weighted average of the: consumer confidence indicator (% balance), passenger car registrations sa (number), production manufacturing: future tendency (% balance), Services – Demand evolution: future tendency, share prices: FTSE LOCAL UK (£) index (2010=100) and the sterling 3 month interbank lending rate (% p.a.) inverted. The components of the CLI exhibit a leading relationship to the GDP and are selected on availability, cyclical behaviour, economic significance, data quality and timeliness. The CLI is the average of the normalised, smoothed and de-trended component series. (OECD, 2017)

Lastly, the recession dummy (REC) of the Federal Reserve Bank of St. Louis is used to measure macro-economic conditions. This variable is the only dummy used in this research and is created based on Composite Leading Indicator data from the OECD. REC takes on a value of one in a recessionary period and is zero otherwise. (FRED, 2017) The sign of REC is flipped in this paper, to ensure that a higher score for ESI, CLI and REC all reflect better economic conditions.

To ensure that the EPUI, ESI and CLI are similar in size as the equity risk premia and volatility, the percentage change in EPUI, ESI and CLI is used in this paper. More specifically, directly using EPUI, ESI and CLI leads to small and economically irrelevant regression coefficients since the size of the EPUI, ESI and CLI variables is much higher than equity risk premia and volatility. For this reason, the percentage change in EPUI, ESI and CLI is calculated, which is done in the same way as stock returns are calculated. This allows for a more economic relevant interpretation of the influence of the EPUI, ESI and CLI on equity risk premia and volatility. After the

percentage change for the CLI is calculated, this amount is multiplied by hundred. This is done so that CLI regression coefficients show the influence of a one basis point change in CLI instead of a one percent change in CLI. The change of CLI in basis points is used as this variable changes with small quantities.

In table 1.1 the descriptive statistics of the EPUI, ESI, CLI and -REC are shown. Furthermore, the table shows the descriptive statistics of volatility and equity risk premia on aggregate level. The sign of REC is flipped to assure a higher value of each variable is related to better economic circumstances. It is worth mentioning that the EPUI contains three data points in 2016 which are substantially higher than the other values. The dates and values of these points are: June 2016; 799.93, July 2016; 1141.80 and November 2016; 814.76. I have chosen to keep these outliers in the dataset since the values are not likely to be influenced by measurement errors. Keeping the outliers also allows the use of Newey-West standard errors which help correct for autocorrelation. Furthermore, it is worth noting that REC and EPUI are the most volatile variables. The average value of -REC is -0.404, implying that the economy is less often in a recessionary period than in another state. When looking at the equity risk premia it is notable that the mean gets more negative and both the median and standard deviation get more positive as *h* increases. This implies that all equity risk premia are negatively skewed and that it gets more negatively skewed when the measurement period of the equity risk premia, *h*, increases.

Table 1.1 Descriptive statistics of variables on market level

This table shows descriptive statistics of the Economic Policy Uncertainty Index (EPUI), Economic Sentiment Indicator (ESI), Composite Leading Indicator (CLI) and a recession dummy (REC) from 01/01/1997 to 31/12/2016. The sign of REC is flipped to assure that a higher value of ESI, CLI and REC is related to better economic circumstances. Besides that, the descriptive statistics of monthly volatility and equity risk premia on the entire FTSE100 is shown. Realized volatility is computed from daily returns of the company within the given month. The volatility of the entire group is calculated as the average of the volatility of all companies within the given group, for the specified date. The future equity risk premium, $R_{(t+1,t+h)}$, is computed by taking the cumulative return on the portfolio over months *t+1* through *t+h* and subtracting cumulative return of the one-month UK T-bill. The direct equity risk premium, $R_{(t)}$, is computed by taking the return on the portfolio on *t=0* and subtracting the return of the one-month UK T-bill. In this table the equity risk premia of *h =0, 3, 6, 12* are shown.

VARIABLES	(1) N	(2) mean	(3) median	(4) se
EPUI	239	0.007	0.009	0.318
ESI	239	0.000	0.000	0.030
CLI	239	-0.004	-0.012	0.252
REC	240	-0.404	0.000	0.492
vol	240	0.049	0.043	0.027
h0	240	-0.001	0.006	0.043
h3	240	-0.001	0.009	0.075
h6	237	-0.004	0.010	0.110
h12	231	-0.013	0.022	0.160

Table 1.2 shows how the different variables examined in this paper are correlated to each other. As expected in the hypotheses, EPUI shows a negative correlation to the three measures of economic circumstances and a positive correlation with volatility. The sign of the correlation between EPUI and equity risk premia are all different than expected by the hypotheses. Furthermore, better economic circumstances are negatively correlated to volatility and positively correlated to equity risk premia. Finally, it is notable that future equity risk premia all show a high correlation to each other but not to the direct equity risk premium. When relating this to the hypothesis this could have been expected, as an opposing effect of EPUI on direct versus future equity risk premia is expected.

Table 1.2 correlation matrix variables

Table 1.2 show the pairwise correlation of each of the nine variables used on aggregate level. The standard error of the pairwise correlations is shown between brackets underneath the coefficient. When the pairwise correlation between the two variables is significant at a five percent or higher level there is one * behind the coefficient.

	EPUI	ESI	CLI	REC	vol	h0	h3	h6	h12
EPUI	1.000								
ESI	-0.045	1.000							
	(0.490)								
CLI	-0.121	0.462*	1.000						
	(0.063)	(0.000)							
REC	-0.079	0.143*	0.167*	1.000					
	(0.224)	(0.027)	(0.010)						
vol	0.196*	-0.258*	-0.306*	-0.242*	1.000				
	(0.002)	(0.000)	(0.000)	(0.000)					
h0	0.090	0.036	-0.172*	-0.005	-0.050	1.000			
	(0.164)	(0.580)	(0.008)	(0.943)	(0.445)				
h3	-0.090	0.220*	0.466*	0.215*	-0.194*	-0.017	1.000		
	(0.163)	(0.001)	(0.000)	(0.001)	(0.003)	(0.790)			
h6	-0.082	0.122	0.453*	0.312*	-0.151*	0.017	0.735*	1.000	
	(0.208)	(0.061)	(0.000)	(0.000)	(0.020)	(0.794)	(0.000)		
h12	-0.043	0.107	0.320*	0.286*	-0.061	0.004	0.518*	0.729*	1.000
	(0.522)	(0.106)	(0.000)	(0.000)	(0.355)	(0.957)	(0.000)	(0.000)	

3.2 Methodology

To examine the effects of political uncertainty on the UK stock market the general equilibrium model of Pástor and Veronesi (2013) is used. This model allows to examine the effects of political uncertainty on stock volatility and equity risk premia. Furthermore, Pástor and Veronesi (2013) their methodology can be used to examine the impact of political uncertainty on stock markets under different economic conditions.

The first hypothesis in this paper suggests that political uncertainty is generally larger in weaker economic conditions than in stronger economic conditions. To test for this, the following two regressions are made:

(1) $EPUI_t = \alpha + \beta_1 * E_t + \varepsilon_t$
(2) $EPUI_t = \alpha + \beta_1 * E_t + \beta_2 * EPUI_{t-1} + \varepsilon_t$

where E_t denotes ESI, CLI or -REC. REC is made negative to ensure that a higher value relates to better economic conditions just like ESI and CLI. Both regressions have a constant, α, which captures the average monthly EPUI. The second parameter, β_1, captures the influence of economic circumstances on political uncertainty. Next to that, the first lag of the EPUI is added to test for serial correlation in the second regression.

The second hypothesis predicts that stock volatility is higher in times of larger political uncertainty. The third hypothesis on the other hand suggest a lower direct equity risk premium as political uncertainty increases. To examine the impact of political uncertainty on volatility and direct equity risk premia the following regressions are tested:

(3) $VR_{i,t} = \alpha + \beta_1 * EPUI_t + \varepsilon_{i,t}$
(4) $VR_{i,t} = \alpha + \beta_1 * EPUI_t + \beta_2 * VR_{i,t-1} + \varepsilon_{i,t}$

the dependent variable VR stands for volatility and direct equity risk premium. EPUI is the Economic Policy Uncertainty Index which takes on a higher value when political uncertainty is higher. In the second regression the variable VR_{t-1} is added to soak up serial correlation. In regression three and four alpha captures the average monthly volatility/ direct equity risk premium. The effect of political uncertainty on VR is captured by β_1. When β_1 is significant and positive stocks have a higher VR when there is more political uncertainty. When β_2 is significant and positive, stocks on average have a significantly higher VR on time *t* following a higher VR on time *t-1*.

When examining whether the influence of political uncertainty on volatility and direct equity risk premia is higher under weaker economic circumstances, the following regressions are made:

(5) $VR_{i,t} = \alpha + \beta_1 * EPUI_t + \beta_2 * E_t + \beta_3 * EPUI_t * E_t + \varepsilon_{i,t}$
(6) $VR_{i,t} = \alpha + \beta_1 * EPUI_t + \beta_2 * E_t + \beta_3 * EPUI_t * E_t + \beta_4 * VR_{i,t-1} + \varepsilon_{i,t}$

In regressions five and six α is a constant, which captures the average monthly VR. The first beta measures the impact of political uncertainty on stock volatility/ direct equity risk premia. When β_1 is significant and positive stocks on average have a higher VR when there is more political uncertainty. The effect of economic conditions

on VR is measured by β_2. Where a significant negative β_2 implies higher VR under weaker economic circumstances. The interaction effect between political uncertainty and economic conditions is measured by β_3. When β_3 is significantly negative the association between political uncertainty and VR is stronger under worse economic conditions. Finally, a significant and positive β_4 indicates that stocks on average have a significantly higher VR on time *t* following a higher volatility on time *t-1*.

To test for the impact of political uncertainty on future equity risk premia, slightly different regressions are made than for volatility and direct equity risk premia. The main difference between the regressions being that the future equity risk premium is measured from *t+1* through *t+h*, whereas both volatility and the direct equity risk premium are measured at *t.* For all three dependent variables, the independent variables are measured at *t.* This leads to the following regressions to be made for future equity risk premia:

$$(7)\ R_{i,t+1,t+h} = \alpha + \beta_1 * EPUI_t + \varepsilon_{i,t}$$

$$(8)\ R_{i,t+1,t+h} = \alpha + \beta_1 * EPUI_t + \beta_2 * E_t + \beta_3 * EPUI_t * E_t + \varepsilon_{i,t}$$

In regressions seven and eight α is a constant, which captures the average monthly future equity risk premium. The effect of political uncertainty on the future equity risk premium is captured by β_1. When β_1 is significant and positive larger political uncertainty demands a future higher risk premium. The effect of economic conditions on future equity risk premia is measured by β_2. Where a significant negative β_2 implies a that weaker economic circumstances on average demand a higher future equity risk premium. The interaction effect of political uncertainty and economic conditions on the equity risk premium is measured by β_3. When β_3 is significantly negative a higher future equity risk premium for political uncertainty is demanded in weaker economic circumstances than in stronger economic circumstances, on average.

When performing the regressions all regressions are tested for heteroskedasticity and autocorrelation in Stata. When autocorrelation is found, this is corrected for using Newey-West standard errors and covariance's in Stata. When no autocorrelation is found, but heteroscedasticity is found, this is corrected for using robust standard errors and covariance's in Stata. To absorb part of the potential serial correlation, lags of the dependent variables are added. This makes the standard errors of the coefficients more reliable. Chapter 4 will show the results of the regressions and will link these results to the hypotheses.

Chapter 4 Results

This chapter will discuss the results of the regressions stated in chapter three. The first part of this chapter discusses the influence of economic circumstances on political uncertainty. After doing so, the influence of political uncertainty on stock volatility and equity risk premia will be discussed. The influence of political uncertainty on these variables is viewed over ten different industries and on the UK stock market as a whole. The ten different industries examined in this paper are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech. The FTSE 100 is used to proxy for the whole stock market of the UK. The FTSE 100 is referred to as FTSE in the results. All regressions are tested for heteroskedasticity and autocorrelation in Stata. When only heteroscedasticity is found, this is corrected for using robust standard errors and covariance's in Stata. When autocorrelation is found, Newey-West standard errors and covariance's are used in Stata. The t-values of the coefficients are in parentheses stated below the coefficients. When a coefficient is significant at a ten, five or one percent level the following is visible behind the parentheses of the coefficient: *, ** or ***, respectively. The results of the regressions will be linked to the hypotheses and a clear view of the acceptance or rejection of the hypotheses will be provided.

4.1 Political uncertainty and economic circumstances

To get insight in how economic circumstances influence political uncertainty several regressions are performed. The first three regressions in table 2.1 suggest that an increase in economic circumstances, as measured by CLI and REC, lead to a decrease in political uncertainty. When the first lag of the change in EPUI is added, the results suggest a change in CLI has a significant impact on the change in EPUI. More specifically, a one basis point decrease in CLI is on average associated to a 0.201 percent increase in EPUI. Suggesting that political uncertainty is larger under weaker economic circumstances in the UK between 1997 and 2016, when economic circumstances is measured by the Composite Leading Indicator. This result is consistent with the first hypothesis. When economic circumstances are, however, measured by the Economic Sentiment Indicator and the recession dummy no such effect is found. Next to that, the results suggest that the current change in political uncertainty is negatively influenced by the change in political uncertainty in the foregoing period.

When looking at the impact of economic circumstances on political uncertainty over time, similar results are found. In table A.1, in the appendix, is visible that CLI has a significant negative influence on political uncertainty both from 1997 to 2006 and from 2007 to 2016. A one basis point increase in CLI on average leads to a bigger decrease in political uncertainty from 1997 to 2006 than from 2007 to 2016. Both from 1997 to 2006 and from 2007 to 2016, no significant influence of the ESI and REC are found on political uncertainty. Leading to the conclusion that political uncertainty is higher in weaker economic circumstances, when economic

circumstances are measured with the CLI. When the ESI and REC are used to measure economic circumstances, no significant influence on political uncertainty is found.

Table 2.1 The influence of economic circumstances on political uncertainty from 01/01/1997 to 31/12/2016

This table shows how the Economic Policy Uncertainty Index (EPUI) is influenced by the Economic Sentiment Indicator (ESI), Composite Leading Indicator (CLI) and a recession dummy (REC) from 01/01/1997 to 31/12/2016. In regressions four to six the first lag of the EPUI is added to soak op autocorrelation.

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	EPUI	EPUI	EPUI	EPUI	EPUI	EPUI
ESI	-0.473			-0.693		
	(0.704)			(0.701)		
CLI		-0.152***			-0.201***	
		(0.054)			(0.066)	
REC			-0.051*			-0.054
			(0.031)			(0.035)
lagEPUI				-0.300***	-0.316***	-0.297***
				(0.057)	(0.057)	(0.058)
Constant	0.007	0.006	-0.014	0.010	0.010	-0.012
	(0.014)	(0.014)	(0.020)	(0.017)	(0.016)	(0.024)
N	239	239	239	238	238	238
Adj. R^2	-0.002	0.010	0.002	0.080	0.101	0.091

4.2 The influence of political uncertainty on volatility

This section will look into the effects of political uncertainty and economic circumstances on stock price volatility. First, several regressions will be done on the FTSE 100 as a whole. Based on these regressions an optimal model will be chosen, which will be used to draw conclusions on the effects of political uncertainty on the FTSE 100. After doing so, the optimal model will be used to examine the effect of political uncertainty and economic circumstances on different industries. The results of this section will also be considered over time, to check for time varying effects, these results are visible in appendix B.

4.2.1 Market overview

Several regressions are performed to test which model best captures the influence of political uncertainty on volatility on the UK stock market. Given the significance of the lag of the FTSE and the three economic measures model six, stated in the methodology, will be used to draw conclusions. This model, visible in regression six through eight in table 3.1, will not only be used to draw conclusions of the influence of political uncertainty on the FTSE 100. This model will also be used to examine the influence of political uncertainty and economic circumstances over time and on different industries in the UK.

Almost all regression results, stated in table 3.1, imply that volatility on the FTSE 100 on average increases when the EPUI increases by one percent, between 1997 and 2016. This is consistent with the second hypothesis stating that stock volatility is higher in times of larger political uncertainty. A remarkable thing, however, is that

when the first lag of volatility on the FTSE is added in the last REC regression, the EPUI becomes less significant. This is shown in regression five and eight in table 3.1. When looking over time, table B.1 in the appendix, political uncertainty, on average, has a significant positive impact on stock market volatility for both the ESI and CLI regressions, from 1997 to 2006 and from 2007 to 2016. When the recession dummy is used as a proxy of economic circumstances, no significant effect of political uncertainty is found. The second hypothesis is thus accepted when the CLI and ESI are taken as proxy for economic conditions, but not when the REC is used as a proxy.

Table 3.1 Political uncertainty, economic circumstances and volatility on the FTSE 100 from 01/01/1997 to 31/12/2016
This table shows how political uncertainty and economic circumstances influence volatility on the FTSE 100. To the FTSE 100 is referred as FTSE. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively. In some of the regressions the first lag of volatility on the FTSE 100 is added as an independent variable to soak up autocorrelation. Regressions six, seven and eight, similar to model six in the methodology, are used to draw conclusions up on.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	FTSE	FTSE	FTSE	FTSE	FTSE	FTSE	FTSE	FTSE
EPUI	0.017***	0.015***	0.016***	0.013***	0.012***	0.014***	0.012***	0.007*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)
ESI			-0.222**			-0.129**		
			(0.095)			(0.053)		
EPUIxESI			-0.229			-0.312		
			(0.220)			(0.195)		
CLI				-0.030*			-0.017**	
				(0.017)			(0.007)	
EPUIxCLI				-0.070**			-0.060*	
				(0.032)			(0.035)	
REC					-0.012**			-0.004
					(0.006)			(0.002)
EPUIxREC					-0.007			-0.021*
					(0.009)			(0.011)
lagFTSE		0.658***				0.639***	0.620***	0.654***
		(0.062)				(0.054)	(0.054)	(0.064)
Constant	0.049***	0.017***	0.049***	0.049***	0.044***	0.018***	0.018***	0.015***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
N	239	239	239	239	239	239	239	239
Adj. R^2	0.034	0.470	0.096	0.137	0.080	0.494	0.507	0.480

When the influence of both political uncertainty and economic circumstances on volatility are taken into account, no significant influence, on a five percent or higher level, is found, for all three economic proxies. Political uncertainty thus does not have a bigger impact on volatility on the FTSE 100 in weaker economic circumstances. This result is consistent over time. This leads to rejection of hypothesis five.

Economic circumstances on itself do, however, significantly influence volatility on the FTSE 100. Both ESI and CLI have a significant negative impact on volatility on the FTSE 100 from 1997 to 2016. This effect is found to be differing over time. When looking at the FTSE 100 from 1997 to 2006, only for the CLI a significant negative impact of economic conditions on volatility is found. From 2007 to 2016, a significant negative influence of economic conditions on stock market volatility is found when REC is used as a proxy for economic conditions.

4.2.2 Sector specific influence of political uncertainty on volatility

This section shows how UK stock market volatility is affected by political uncertainty across different industries, over time. In table 3.2 panel A is shown that political uncertainty significantly influences all sectors of the market on a five percent or higher level, when ESI is used as a proxy for economic circumstances, between 1997 and 2016. The only exception is the health care industry, which experiences a significant positive influence of political uncertainty on volatility on a ten percent level. Basic materials is most influenced by changing political circumstances, here a one percentage increase in political uncertainty leads, on average, to a 0.024% increase in volatility. Volatility in less industries is significantly influenced by political uncertainty over time. Between 1997 and 2006 seven industries experienced higher volatility when political uncertainty increased. Only six industries experience such an effect from 2007 to 2016. Furthermore, worse economic circumstances lead to higher volatility for two industries when ESI is used as a measure of economic circumstances. Finally, an increase in political uncertainty has a significantly stronger effect on volatility under weak economic conditions for utilities from 1997 to 2016. Between 1997 and 2006 this effect is found for both utilities and financials. Between 2007 and 2016 no such effect is found.

When the CLI is used as a measure of economic circumstances, again all sectors except the health care industry experience a significant positive impact of political uncertainty on volatility. The biggest impact is experienced by the basic materials and technology sector, which both on average experience a 0.021% increase in volatility in the EPUI increases by one percent. When looking at the impact of political uncertainty on industry volatility over time, a less strong effect is found. Only basic materials, industrials and utilities on average experience a higher volatility when political uncertainty increases between 1997 and 2006. Six industries experience such an effect between 2007 and 2016. Remarkable is, that, when CLI is taken as proxy of economic circumstances, nine out of ten industries demonstrate an increase in volatility when economic conditions worsen. The biggest effect is found in the oil and gas sector, where a one basis point decrease in CLI on average leads to a 0.024% increase in volatility. Between 1997 and 2006 a similar effect is found for seven out of ten industries. Only for two industries such an effect is found between 2007 and 2016. Four industries experience a significant interaction effect of the EPUI and CLI on volatility. In line with hypothesis five, political uncertainty has a stronger effect on volatility in worse economic circumstances for the basic materials, consumer goods, utilities

and financial sectors. From 1997 to 2006 no such effect is found. Between 2007 and 2016 two industries are affected by this interaction effect.

In panel C of table 3.2 is visible that when REC is used as a proxy of economic circumstances, much less sectors are found to experience a significant influence of political uncertainty on volatility. It is shown that only basic materials, industrials and consumer services experience a significant impact of political uncertainty on volatility, on a five percent or higher level. Here, the biggest impact is again found in the basic materials sector. Between 1997 and 2006 only the industrials sector demonstrates an increase in volatility when political uncertainty increases. No effect of political uncertainty on volatility is found from 2007 to 2016. Political uncertainty on itself seems to have little impact on volatility for most sectors, a combination of worsening economic conditions and larger political uncertainty leads to an increase in volatility for eight out of ten sectors. When splitting the overall period into two separate periods, less industries demonstrate such an effect. The recession dummy itself also impacts volatility. Companies in the oil and gas, health care and telecommunications sector on average demonstrate higher volatility under worsening economic conditions between 1997 and 2016. No such effect is found from 1997 to 2006. Between 2007 and 2016, however, seven industries experience larger stock price volatility when economic conditions worsen.

Table 3.2 Political uncertainty, economic circumstances and sectoral volatility from 01/01/1997 to 31/12/2016

This table shows how political uncertainty and economic circumstances influence volatility across ten different industries. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. To the FTSE 100 is referred as FTSE. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively. In the regressions the first lag of the dependent variable is added as an independent variable to test for autocorrelation.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: volatility forecast with EPUI and ESI					
EPUI	0.015***	0.024***	0.018***	0.017***	0.016***	0.008*	0.016**	0.014***	0.023***	0.022**
	(0.005)	(0.006)	(0.004)	(0.004)	(0.005)	(0.005)	(0.007)	(0.004)	(0.006)	(0.009)
ESI	-0.145*	-0.141*	-0.086	-0.032	-0.089*	-0.137**	-0.151**	-0.045	-0.139*	-0.134
	(0.077)	(0.080)	(0.055)	(0.050)	(0.051)	(0.054)	(0.065)	(0.056)	(0.071)	(0.086)
EPUIxESI	-0.389	-0.412	-0.261	-0.270	-0.186	-0.371*	-0.318	-0.402**	-0.510*	-0.390
	(0.263)	(0.282)	(0.164)	(0.202)	(0.186)	(0.208)	(0.207)	(0.183)	(0.262)	(0.241)
lagY	0.621***	0.763***	0.747***	0.764***	0.755***	0.652***	0.748***	0.748***	0.752***	0.726***
	(0.065)	(0.068)	(0.043)	(0.055)	(0.047)	(0.055)	(0.040)	(0.050)	(0.048)	(0.051)
Constant	0.035***	0.027***	0.022***	0.019***	0.022***	0.029***	0.025***	0.019***	0.023***	0.034***
	(0.006)	(0.007)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.006)
N	239	239	239	239	239	239	239	239	239	239
Adj. R^2	0.470	0.628	0.609	0.614	0.614	0.461	0.602	0.583	0.628	0.545

Panel B: volatility forecast with EPUI and CLI

EPUI	0.012**	0.021***	0.016***	0.015***	0.014***	0.007	0.014**	0.012***	0.020***	0.021**
	(0.005)	(0.006)	(0.004)	(0.004)	(0.004)	(0.005)	(0.007)	(0.004)	(0.005)	(0.009)
CLI	-0.024**	-0.021*	-0.015**	-0.017**	-0.017**	-0.014**	-0.015**	-0.011**	-0.021**	-0.023***
	(0.010)	(0.012)	(0.006)	(0.008)	(0.008)	(0.006)	(0.006)	(0.005)	(0.008)	(0.009)
EPUIxCLI	-0.050	-0.088**	-0.047*	-0.058**	-0.041	-0.027	-0.065	-0.066***	-0.109**	0.013
	(0.046)	(0.044)	(0.024)	(0.023)	(0.025)	(0.029)	(0.040)	(0.023)	(0.044)	(0.048)
lagY	0.604***	0.762***	0.741***	0.741***	0.746***	0.639***	0.751***	0.736***	0.748***	0.723***
	(0.052)	(0.067)	(0.043)	(0.052)	(0.047)	(0.054)	(0.038)	(0.048)	(0.053)	(0.054)
Constant	0.036***	0.026***	0.023***	0.021***	0.023***	0.030***	0.024***	0.019***	0.023***	0.034***
	(0.005)	(0.007)	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.005)	(0.007)
N	239	239	239	239	239	239	239	239	239	239
Adj. R^2	0.473	0.641	0.620	0.638	0.628	0.445	0.604	0.594	0.649	0.546

Panel C: volatility forecast with EPUI and REC

EPUI	0.009*	0.014**	0.010***	0.006*	0.007**	-0.001	0.003	0.004	0.005	0.007
	(0.005)	(0.006)	(0.004)	(0.003)	(0.003)	(0.005)	(0.006)	(0.005)	(0.005)	(0.011)
REC	-0.011***	-0.005	-0.005*	-0.005*	-0.005	-0.008**	-0.008**	-0.005	-0.006*	-0.009*
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.005)
EPUIxREC	-0.013	-0.026*	-0.021**	-0.029***	-0.023**	-0.024**	-0.035**	-0.0238**	-0.046***	-0.039**
	(0.012)	(0.014)	(0.009)	(0.011)	(0.011)	(0.012)	(0.016)	(0.009)	(0.016)	(0.019)
lagY	0.587***	0.760***	0.741***	0.758***	0.755***	0.614***	0.735***	0.733***	0.760***	0.715***
	(0.074)	(0.074)	(0.050)	(0.062)	(0.052)	(0.061)	(0.049)	(0.061)	(0.055)	(0.051)
Constant	0.034***	0.025***	0.021***	0.018***	0.020***	0.029***	0.023***	0.018***	0.020***	0.031***
	(0.006)	(0.008)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.005)	(0.006)
N	239	239	239	239	239	239	239	239	239	239
Adj. R^2	0.457	0.623	0.612	0.632	0.622	0.460	0.610	0.587	0.638	0.553

To summarize, this subsection has shown that higher political uncertainty leads to higher volatility in each sector of the UK stock market, except the health care industry, when ESI and CLI are taken as proxies of economic conditions. When REC is taken as proxy of economic circumstances only three out of ten sectors experience higher stock volatility when political uncertainty increases. The strongest effect is found in the basic materials sector for all the proxies of economic conditions. These results are in line with the second hypothesis of this paper stating that stock volatility is higher when political uncertainty is larger. Political uncertainty affects less industries, per period, when 1997 to 2006 and 2007 to 2016 are separately considered. When REC is taken as a proxy of economic circumstances, eight out of ten sectors experience an increase in volatility when political uncertainty gets larger during worsening economic conditions. For ESI and CLI, less industries experience such an effect. Implying that political uncertainty has a bigger influence on volatility under worsening economic circumstances for some sectors.

4.3 The influence of political uncertainty on equity risk premia

This section will examine the effects of political uncertainty and economic circumstances on equity risk premia. Similar to the volatility section, first several regressions will be done on the FTSE 100 as a whole. Based on

these regressions an optimal model will be chosen, which will be used to draw conclusions on the effects of political uncertainty on the FTSE 100. After doing so, the optimal model will be used to examine the effect of political uncertainty and economic circumstances on different industries. The results of this section will also be considered over time, to check for time varying effects.

4.3.1 A market overview

Table 4.1 provides an overview on how equity risk premia are influenced by political uncertainty and economic circumstances. Panel A, B, C and D all show that adding the lagged direct equity risk premium, does not have any significant impact on the current direct equity risk premium. For this reason, model four nor model six are used to draw conclusions regarding the direct equity risk premium. Panel A in table 4.1 furthermore shows that there is no significant impact of political uncertainty on equity risk premia, on a five percent or higher level, when equity risk premia and political uncertainty are solely considered. In panel B, C and D the effect of economic conditions is also taken into consideration. These panels suggest that economic conditions do significantly affect equity risk premia.

In panel B is visible that a one percent increase in economic circumstances, measured by ESI, on average leads to a 0.536% increase in three month equity risk premia. When the CLI is taken as a proxy of economic conditions, all equity risk premia are significantly impacted by changing economic conditions. For direct equity risk premia, *h=0*, a one basis point increase in CLI on average leads to a 0.028% decrease in equity risk premia between 1997 and 2016. Thus, an increase in economic circumstances has a negative influence on direct equity risk premia, when considering the entire FTSE 100. All future equity risk premia, *h=3, 6, 12*, on the other hand demonstrate a significant positive influence of changing economic circumstances.

Table 4.1 Political uncertainty, economic circumstances and equity risk premia on the FTSE 100 from 01/01/1997 to 31/12/2016
This table shows how political uncertainty and economic circumstances influence equity risk premia on the FTSE 100. risk premia ,$R_{(t+1,t+h)}$., are computed by taking the cumulative return on the portfolio over months *t+1* through *t+h* and subtracting cumulative return of the one-month UK T-bill. In this paper *h = 0, 3 , 6* and *12* are considered. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel B, C and D, respectively. In panel A univariate of the influence of EPUI on ERP are performed.

	(1)	(2)	(3)	(4)	(5)
Variables	h=0	h=0, with lag	h=3	h=6	h=12
			Panel A: Univariate forecast		
EPUI	0.012	0.012	-0.021*	-0.029	-0.022
	(0.009)	(0.009)	(0.011)	(0.018)	(0.025)
lagFTSE		-0.020			
		(0.062)			
Constant	-0.001	-0.001	-0.001	-0.004	-0.013
	(0.003)	(0.003)	(0.007)	(0.013)	(0.020)
N	239	239	239	236	230
Adj. R^2	0.004	0.000	0.004	0.003	-0.003

		Panel B: ERP forecast with EPUI and ESI			
EPUI	0.012	0.012	-0.019*	-0.027	-0.022
	(0.009)	(0.009)	(0.010)	(0.017)	(0.026)
ESI	0.057	0.056	0.536***	0.431	0.550
	(0.086)	(0.086)	(0.168)	(0.302)	(0.411)
EPUIxESI	0.364	0.361	-0.326	0.104	-1.849
	(0.242)	(0.241)	(0.324)	(0.778)	(1.516)
lagFTSE		-0.012			
		(0.062)			
Constant	-0.001	-0.001	-0.001	-0.004	-0.014
	(0.003)	(0.003)	(0.007)	(0.013)	(0.020)
N	239	239	239	236	230
Adj. R^2	0.004	-0.001	0.045	0.008	0.012
		Panel C: ERP forecast with EPUI and CLI			
EPUI	0.010	0.010	-0.009	-0.011	-0.005
	(0.009)	(0.009)	(0.009)	(0.015)	(0.025)
CLI	-0.028**	-0.030**	0.137***	0.196***	0.202***
	(0.012)	(0.013)	(0.024)	(0.046)	(0.067)
EPUIxCLI	0.026	0.026	-0.046	-0.045	-0.085
	(0.059)	(0.059)	(0.072)	(0.130)	(0.129)
lagFTSE		-0.047			
		(0.061)			
Constant	-0.001	-0.001	-0.001	-0.003	-0.013
	(0.003)	(0.003)	(0.006)	(0.011)	(0.019)
N	239	239	239	236	230
Adj. R^2	0.024	0.022	0.210	0.196	0.092
		Panel D: ERP forecast with EPUI and REC			
EPUI	0.021*	0.021*	-0.022**	-0.024	-0.012
	(0.012)	(0.012)	(0.010)	(0.016)	(0.026)
REC	0.000	0.000	0.032**	0.068***	0.092**
	(0.005)	(0.005)	(0.015)	(0.025)	(0.041)
EPUIxREC	0.023	0.022	-0.012	-0.008	0.003
	(0.018)	(0.018)	(0.025)	(0.041)	(0.064)
lagFTSE		-0.012			
		(0.061)			
Constant	-0.001	-0.001	0.012*	0.024**	0.024
	(0.004)	(0.004)	(0.007)	(0.010)	(0.017)
N	239	239	239	236	230
Adj. R^2	0.002	-0.002	0.040	0.087	0.068

Panel D shows similar effects for the influence of economic circumstances on future equity risk premia, when REC is a proxy of economic conditions. Three month equity risk premia on average experience a 0.022% decrease when the EPUI increases by one percent in panel D. To investigate this further the impact of political uncertainty and economic circumstances on equity risk premia across sectors is considered in the next paragraphs. As table 4.1 shows that economic conditions have a significant impact on equity risk premia, model five is used to test the effect of political uncertainty and economic circumstances on direct equity risk premia over time and across sectors. For future equity risk premia model eight, stated in the methodology, is used.

When looking over time, table C.1 in the appendix, less evidence is found for economic conditions significantly influencing equity risk premia between 1997 and 2006. Remarkable is that, in panel B, a one percent increase in EPUI on average leads to a 0.027% decrease in three month equity risk premia, between 1997 and 2006. From 2007 to 2016 no significant influence of political uncertainty on equity risk premia is observed. Some results do, however, indicate a significant impact of economic conditions on equity risk premia.

4.3.2 Sectors and direct equity risk premia

Table 4.2 shows how direct equity risk premia's across different sectors are affected by political uncertainty and economic conditions between 1997 and 2016. Only in panel C, two sectors are significantly affected by political uncertainty. Both oil & gas and basic materials on average demand a significantly higher equity risk premium as political uncertainty increases. This is in contradiction to hypothesis four, stating that larger political uncertainty has a negative impact on direct equity risk premia. When looking over time, as denoted in table C.2 and C.3 in the appendix, again, little evidence is found for political uncertainty influencing direct equity risk premia. The only significant effect of political uncertainty on equity risk premia, when REC is taken as proxy of economic conditions, is found between 1997 and 2006. Here, an increase in political uncertainty on average leads to an increase in direct equity risk premium for the oil & gas, basic materials and consumer goods sector. Based on the results in this and the previous paragraph, hypothesis four, stating that larger political uncertainty has a negative influence on direct equity risk premia, is rejected.

Although there is little evidence that political uncertainty on itself has a negative influence on direct equity risk premia, there is some evidence that an increase in political uncertainty has a negative impact on direct equity risk premia under weak economic conditions. Panel A of table 4.2 shows that an increase in political uncertainty, under worsening economic sentiment leads, leads to a decrease in direct equity risk premia for the basic materials sector. When REC is taken as a proxy of economic circumstances, an increase in political uncertainty, under worsening economic sentiment, leads to a decrease in direct equity risk premium for the oil & gas, basic materials and industrials sector. When looking over time, in table C.2, no interaction effect on the direct equity risk premium is found between 1997 and 2006. Between 2007 and 2016, on the other hand, an increase in political uncertainty under weak economic circumstances on average leads to an increase in direct equity risk premium for the technology sector. This effect is found when both when CLI and REC are taken as proxy for economic circumstances and is visible in table C.3. Hypothesis six, stating that political uncertainty has a bigger negative impact on direct equity risk premia under weaker economic circumstances is thus accepted for the oil & gas, basic materials and industrials sector when REC is a proxy of economic circumstances between 1997 and 2016. When ESI is a proxy of economic circumstances, hypothesis six is only accepted for the basic materials sector between 1997 and 2016. In all other cases hypothesis six is rejected.

Table 4.2 Political uncertainty, economic circumstances and direct equity risk premia from 01/01/1997 to 31/12/2016

This table shows how political uncertainty and economic circumstances influence direct equity risk premia across ten different industries and the FTSE 100. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	0.019	0.026*	0.010	0.011	0.004	0.008	0.007	0.008	0.010	0.016
	(0.013)	(0.015)	(0.011)	(0.008)	(0.010)	(0.009)	(0.017)	(0.010)	(0.011)	(0.017)
ESI	-0.071	-0.001	0.044	-0.136	0.048	0.040	0.305	-0.007	-0.040	0.219
	(0.134)	(0.167)	(0.103)	(0.122)	(0.111)	(0.100)	(0.191)	(0.081)	(0.135)	(0.197)
EPUIxESI	0.826*	1.196***	0.565*	0.501	0.436	-0.108	0.439	0.355	0.032	0.232
	(0.425)	(0.435)	(0.327)	(0.318)	(0.333)	(0.315)	(0.550)	(0.253)	(0.334)	(0.603)
Constant	0.002	-0.001	0.002	0.005	-0.001	0.005	-0.004	0.002	0.000	0.003
	(0.004)	(0.006)	(0.004)	(0.004)	(0.004)	(0.003)	(0.008)	(0.003)	(0.004)	(0.008)
N	239	239	239	239	239	239	239	239	239	239
Adj. R^2	0.014	0.014	0.001	0.007	-0.005	-0.009	-0.002	-0.003	-0.009	-0.006
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	0.016	0.019	0.007	0.008	0.000	0.007	0.005	0.007	0.005	0.011
	(0.013)	(0.017)	(0.012)	(0.010)	(0.011)	(0.009)	(0.017)	(0.009)	(0.012)	(0.018)
CLI	-0.042***	-0.085***	-0.030*	-0.037*	-0.036**	-0.013	-0.015	-0.017	-0.045**	-0.031
	(0.016)	(0.033)	(0.017)	(0.021)	(0.017)	(0.009)	(0.024)	(0.011)	(0.022)	(0.026)
EPUIxCLI	0.061	0.021	0.012	0.013	-0.017	0.031	0.0218	0.032	-0.039	-0.058
	(0.062)	(0.100)	(0.080)	(0.088)	(0.076)	(0.052)	(0.086)	(0.045)	(0.092)	(0.112)
Constant	0.002	-0.002	0.002	0.005	-0.001	0.005*	-0.004	0.002	-0.001	0.002
	(0.004)	(0.006)	(0.004)	(0.004)	(0.004)	(0.003)	(0.008)	(0.003)	(0.004)	(0.008)
N	239	239	239	239	239	239	239	239	239	239
Adj. R^2	0.028	0.057	0.009	0.025	0.017	-0.004	-0.011	0.001	0.030	-0.003
					Panel C: direct equity risk premia forecasts with EPUI and REC					
EPUI	0.040**	0.048**	0.026*	0.020*	0.014	0.009	0.012	0.016	0.014	0.029
	(0.016)	(0.020)	(0.014)	(0.012)	(0.014)	(0.013)	(0.022)	(0.012)	(0.015)	(0.021)
REC	-0.012	-0.013	0.003	0.012	0.002	-0.005	-0.015	0.003	0.000	-0.009
	(0.008)	(0.011)	(0.007)	(0.007)	(0.007)	(0.006)	(0.015)	(0.006)	(0.008)	(0.015)
EPUIxREC	0.059**	0.063**	0.040**	0.018	0.028	0.005	0.021	0.019	0.011	0.040
	(0.026)	(0.027)	(0.020)	(0.017)	(0.020)	(0.019)	(0.033)	(0.019)	(0.021)	(0.032)
Constant	-0.002	-0.006	0.003	0.010**	0.001	0.003	-0.010	0.003	0.000	0.000
	(0.005)	(0.009)	(0.005)	(0.004)	(0.005)	(0.004)	(0.011)	(0.004)	(0.006)	(0.009)
N	239	239	239	239	239	239	239	239	239	239
Adj. R^2	0.025	0.014	0.004	0.008	-0.005	-0.007	-0.007	-0.004	-0.009	-0.005

Finally, economic circumstances on itself seem to affect the direct equity risk premium for some sectors. When CLI is taken as a proxy of economic circumstances, a decrease in economic conditions leads to a significant

increase in direct equity risk premium for oil & gas, basic materials, consumer services and financials. When ESI and REC are used as a proxy of economic circumstances no such effects are found. In table C.2 no evidence is found for economic circumstances affecting direct equity risk premia between 1997 and 2006. From 2007 to 2016 a decrease in economic circumstances, as measured by CLI, leads to an increase in direct equity risk premium for the basic materials and telecommunications sector. When REC is taken as a proxy, consumer goods and industrials demonstrate a decrease in direct equity risk premium when economic conditions worsen.

4.4.3 Sectors and three month equity risk premia

The impact of political uncertainty and economic circumstances on three month sectoral equity risk premia between 1997 and 2016 is shown in table 4.3. Regardless what proxy of economic circumstances is taken, there is no evidence that three month equity risk premia across sectors are affected by political uncertainty between 1997 and 2016. Table C.4 and C.5, in the appendix, also show no evidence that political uncertainty affects three month equity risk premia from 1997 to 2006 and 2007 to 2016, respectively. Based on these findings and the findings on the whole FTSE 100, the fifth hypothesis is rejected for sectoral three month equity risk premia, stating that larger political uncertainty demands a higher future equity risk premium.

Table 4.3 does provide evidence of an interaction effect, of political uncertainty and economic circumstances, on three month technology equity risk premia. When ESI and REC are taken as a proxy of economic conditions, an increase in political uncertainty under worsening economic conditions on average leads to a significantly higher three month equity risk premium in the technology sector, between 1997 and 2016. Table C.4 shows a similar effect for the technology sector, when CLI is used as proxy of economic circumstances, between 1997 and 2006. In line with this table C.5 also finds evidence for this effect in the technology sector, when CLI and REC are taken as proxy of economic circumstances, from 2007 to 2016. For other sectors no such effect is found for the three periods. This leads to the acceptance of hypothesis six, stating that an increase in political uncertainty leads to a higher demanded equity risk premium under weaker economic conditions, for the technology sector. For all other sectors and the FTSE 100 as a whole hypothesis six is rejected.

Economic conditions, as measured by the CLI and REC, are found to have significant influence on three month equity risk premia for some sectors, between 1997 and 2016. Table 4.3 suggests that an increase in CLI is on average associated with a higher three month equity risk. When REC is considered, an increase in economic conditions on average leads to a higher equity risk premium in the industrials and technology sector. Table C.6 suggests that an increase in CLI leads to an increase in equity risk premium for the telecommunications sector between 1997 and 2006. Six out of ten sectors provide evidence for such an effect when REC is taken as proxy. Table C.7 shows no significant impact of REC on three month equity risk premia from 2007 to 2016. An increase in the CLI, on the other hand, does on average lead to an increase in the three month equity risk premium between 2007 and 2016. When ESI is taken as a proxy no such effect is found, for all three periods.

Table 4.3 Political uncertainty, economic circumstances and three month equity risk premia from 01/01/1997 to 31/12/2016

This table shows how political uncertainty and economic circumstances influence direct equity risk premia across ten different industries and the FTSE 100. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
Panel A: direct equity risk premia forecasts with EPUI and ESI										
EPUI	-0.006	-0.001	-0.003	0.008	-0.008	-0.015	-0.011	-0.005	0.000	0.021
	(0.0152)	(0.013)	(0.014)	(0.016)	(0.014)	(0.021)	(0.015)	(0.014)	(0.014)	(0.018)
ESI	0.189	0.220	0.129	0.134	0.164	0.284	0.315	0.200	0.154	0.267
	(0.242)	(0.272)	(0.215)	(0.302)	(0.291)	(0.318)	(0.268)	(0.294)	(0.230)	(0.274)
EPUIxESI	-1.170	-0.956	-1.119*	-0.789	-0.732	-0.849	-0.213	-0.860	-0.726	-1.822**
	(0.716)	(0.772)	(0.668)	(0.730)	(0.820)	(0.839)	(0.502)	(0.582)	(0.570)	(0.726)
Constant	0.011	-0.001	0.002	0.003	0.000	0.006	0.000	0.007	-0.002	-0.002
	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)	(0.012)	(0.011)	(0.010)	(0.010)	(0.013)
N	239	239	239	239	239	239	239	239	239	239
Adj. R^2	0.004	0.002	0.002	0.002	-0.006	-0.005	-0.002	-0.002	-0.002	-0.005
Panel B: direct equity risk premia forecasts with EPUI and CLI										
EPUI	0.007	0.013	0.008	0.025*	0.009	0.004	0.003	0.011	0.014	0.035*
	(0.014)	(0.012)	(0.013)	(0.015)	(0.012)	(0.019)	(0.015)	(0.013)	(0.013)	(0.018)
CLI	0.152***	0.172***	0.137***	0.176***	0.179***	0.201***	0.155***	0.180***	0.156***	0.179***
	(0.034)	(0.047)	(0.030)	(0.042)	(0.051)	(0.043)	(0.046)	(0.045)	(0.034)	(0.033)
EPUIxCLI	-0.004	-0.028	-0.050	0.054	0.070	0.057	0.029	0.015	-0.003	-0.131
	(0.069)	(0.080)	(0.057)	(0.081)	(0.081)	(0.093)	(0.066)	(0.074)	(0.064)	(0.085)
Constant	0.012	-0.001	0.003	0.004	0.001	0.008	0.001	0.008	-0.001	-0.002
	(0.009)	(0.008)	(0.009)	(0.010)	(0.009)	(0.011)	(0.009)	(0.008)	(0.009)	(0.012)
N	239	239	239	239	239	239	239	239	239	239
Adj. R^2	0.137	0.196	0.120	0.1483	0.196	0.156	0.137	0.194	0.153	0.112
Panel C: direct equity risk premia forecasts with EPUI and REC										
EPUI	-0.012	-0.011	-0.015	-0.005	-0.013	-0.038	-0.026	-0.017	-0.012	-0.008
	(0.017)	(0.014)	(0.016)	(0.020)	(0.015)	(0.026)	(0.019)	(0.016)	(0.015)	(0.018)
REC	0.016	0.027	0.040**	0.030	0.031	0.031	0.016	0.030	0.039*	0.060**
	(0.021)	(0.021)	(0.020)	(0.023)	(0.023)	(0.025)	(0.022)	(0.022)	(0.020)	(0.029)
EPUIxREC	-0.018	-0.031	-0.042	-0.042	-0.020	-0.067	-0.042	-0.039	-0.042	-0.093**
	(0.031)	(0.032)	(0.030)	(0.032)	(0.029)	(0.041)	(0.028)	(0.030)	(0.030)	(0.044)
Constant	0.018*	0.010	0.018**	0.015	0.012	0.018	0.006	0.019**	0.014	0.021**
	(0.010)	(0.009)	(0.008)	(0.012)	(0.010)	(0.014)	(0.012)	(0.009)	(0.009)	(0.010)
N	239	239	239	239	239	239	239	239	239	239
Adj. R^2	-0.005	0.009	0.035	0.008	0.012	0.010	-0.001	0.013	0.031	0.051

4.4.4 Sectors and half yearly equity risk premia

The results in table 4.4 indicate that sectoral half yearly equity risk premia are not affected by political uncertainty, regardless of the proxy used for economic sentiment, between 1997 and 2016 in the UK. Similar results are found from 1997 to 2006 and 2007 to 2016, as shown in table C.6 and C.7 in the appendix, respectively. This suggests that larger political uncertainty does not demand a higher half yearly equity risk premium between 1997 and 2016 in the UK. Section 4.2.1 shows similar results for the FTSE100 as a whole. This leads to the rejection of hypothesis five for half yearly equity risk premia. Implying that half yearly equity risk premia are not higher when political uncertainty is larger.

Table 4.4 furthermore indicates that an increase in political uncertainty under worsening economic conditions, as measured by REC, leads to a higher demanded half yearly equity risk premium in the technology sector between 1997 and 2016. All other sectors are not affected by this interaction effect, regardless of the proxy for economic circumstances. As indicated in table C.6, no interaction effect of political uncertainty and economic circumstances is found on half yearly equity risk premia between 1997 and 2006. Table C.7 also shows no evidence of the existence of such an interaction effect between 2007 and 2016. This leads to the rejection of hypothesis six for half yearly equity risk premia, stating that political uncertainty has a bigger impact on equity risk premia under weaker economic circumstances between 1997 and 2016. This is in line with the rejection of the sixth hypothesis for the entire FTSE100 between 1997 and 2016.

Table 4.4 Political uncertainty, economic circumstances and half yearly equity risk premia from 01/01/1997 to 31/12/2016

This table shows how political uncertainty and economic circumstances influence direct equity risk premia across ten different industries and the FTSE 100. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	0.009	0.004	0.004	0.011	0.001	-0.008	-0.003	0.001	0.010	0.016
	(0.021)	(0.021)	(0.020)	(0.023)	(0.023)	(0.026)	(0.020)	(0.020)	(0.021)	(0.017)
ESI	0.134	0.212	0.180	0.129	0.173	0.282	0.594	0.249	0.167	0.219
	(0.377)	(0.425)	(0.353)	(0.501)	(0.496)	(0.485)	(0.400)	(0.472)	(0.397)	(0.197)
EPUIxESI	-1.673	-1.145	-0.762	-1.084	-1.632	-0.461	-0.565	-1.752	-0.672	0.232
	(1.183)	(1.397)	(1.268)	(1.417)	(1.716)	(1.297)	(1.060)	(1.289)	(1.173)	(0.603)
Constant	0.020	-0.003	0.006	0.005	-0.003	0.013	-0.002	0.013	-0.005	0.003
	(0.017)	(0.017)	(0.017)	(0.019)	(0.019)	(0.021)	(0.018)	(0.017)	(0.018)	(0.008)
N	236	236	236	236	236	236	236	236	236	236
Adj. R^2	0.001	-0.005	-0.009	-0.008	-0.002	-0.010	0.003	0.003	-0.009	0.005

Panel B: direct equity risk premia forecasts with EPUI and CLI										
EPUI	0.024	0.025	0.019	0.033	0.024	0.014	0.019	0.021	0.027	0.035*
	(0.020)	(0.020)	(0.019)	(0.022)	(0.022)	(0.025)	(0.019)	(0.020)	(0.020)	(0.018)
CLI	0.178***	0.226***	0.169***	0.232***	0.239***	0.249***	0.240***	0.226***	0.195***	0.179***
	(0.058)	(0.082)	(0.057)	(0.070)	(0.088)	(0.072)	(0.071)	(0.073)	(0.060)	(0.033)
EPUIxCLI	-0.095	-0.036	-0.047	-0.039	-0.021	-0.066	0.005	-0.103	-0.071	-0.131
	(0.120)	(0.149)	(0.111)	(0.153)	(0.158)	(0.142)	(0.105)	(0.139)	(0.119)	(0.085)
Constant	0.021	-0.002	0.006	0.006	-0.001	0.014	-0.001	0.014	-0.004	-0.002
	(0.015)	(0.015)	(0.016)	(0.018)	(0.017)	(0.020)	(0.016)	(0.015)	(0.016)	(0.012)
N	236	236	236	236	236	236	236	236	236	236
Adj. R^2	0.088	0.144	0.082	0.116	0.135	0.106	0.147	0.140	0.101	0.099
Panel C: direct equity risk premia forecasts with EPUI and REC										
EPUI	0.002	0.002	0.001	0.004	-0.003	-0.010	-0.007	0.004	-0.006	-0.008
	(0.025)	(0.025)	(0.021)	(0.026)	(0.030)	(0.024)	(0.022)	(0.023)	(0.028)	(0.018)
REC	0.036	0.054	0.087***	0.061	0.084**	0.052	0.060	0.084**	0.110**	0.060**
	(0.035)	(0.036)	(0.033)	(0.039)	(0.042)	(0.036)	(0.037)	(0.035)	(0.049)	(0.029)
EPUIxREC	-0.028	-0.020	-0.032	-0.012	-0.011	-0.028	-0.038	-0.040	-0.045	-0.093**
	(0.050)	(0.054)	(0.048)	(0.056)	(0.059)	(0.043)	(0.051)	(0.050)	(0.072)	(0.044)
Constant	0.035**	0.019	0.041***	0.023	0.048**	0.019	0.038***	0.029*	0.039**	0.021**
	(0.017)	(0.016)	(0.014)	(0.019)	(0.022)	(0.021)	(0.014)	(0.016)	(0.016)	(0.010)
N	236	236	236	236	236	236	236	236	236	236
Adj. R^2	0.003	0.021	0.084	0.032	0.024	0.039	0.016	0.029	0.068	0.069

Finally, table 4.4 shows evidence for economic circumstances affecting sectoral half yearly equity risk premia between 1997 and 2016. When economic circumstances are measured by CLI, an increase in economic conditions leads to an increase in half yearly equity risk premium for each sector. The largest effect is found in the health care industry, where a one basis point increase in CLI on average leads to a 0.249% increase in half yearly equity risk premium. When REC is used as measure of economic circumstances five out of ten sectors show evidence for a significant increase in equity risk premium when economic conditions strengthen. For ESI no such effect is found. The results in table C.6 suggest that an increase in REC leads to an increase in half yearly equity risk premium between 1997 and 2006. When ESI and CLI are used as proxy of economic circumstances no effect on equity risk premia is found. Table C.7 on the other hand, shows a significant positive impact of CLI on all half yearly sectoral equity risk premia between 2007 and 2016. Between 2007 and 2016 no such effect is found for ESI and REC.

4.4.5 Sectors and yearly equity risk premia

Consistent with the results found in the previous sections of this chapter, no evidence is found for political uncertainty influencing yearly equity risk premia from 1997 to 2016 in the UK. When comparing these results over time, table C.8 and C.9 also do not provide any evidence for political uncertainty affecting sectoral yearly equity risk premia between 1997 and 2006 and 2007 and 2016, respectively. These results are in line with section 4.4.1, showing that yearly equity risk premia on the FTSE 100 as a whole are not significantly affected

by political uncertainty. This leads to rejection of hypothesis five for all future equity risk premia, stating that larger political uncertainty demands a higher equity risk premium between 1997 and 2016 in the UK.

The results in table 4.5 furthermore indicate that there is no significantly stronger influence of political uncertainty on sectoral yearly equity risk premium under weak economic circumstances, between 1997 and 2016. Similar results are found when splitting the data into two sub-periods, regardless the proxy for economic circumstances used, as shown in table C.8 and C.9 in the appendix. Based on these results hypothesis six is rejected, stating that political uncertainty has a bigger impact on yearly equity risk premia between 1997 and 2016 in the UK. Meaning that the technology sector is the only sector influenced by the interaction effect and that this effect is only observed when looking at three month and half yearly equity risk premia.

Table 4.5 Political uncertainty, economic circumstances and yearly equity risk premia from 01/01/1997 to 31/12/2016

This table shows how political uncertainty and economic circumstances influence direct equity risk premia across ten different industries and the FTSE 100. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	-0.008	-0.024	-0.016	-0.014	-0.022	-0.024	-0.014	-0.025	-0.006	-0.052
	(0.033)	(0.034)	(0.037)	(0.038)	(0.039)	(0.041)	(0.031)	(0.032)	(0.036)	(0.050)
ESI	-0.241	0.047	0.175	0.008	-0.051	0.137	0.647	-0.036	0.025	0.524
	(0.490)	(0.514)	(0.563)	(0.675)	(0.574)	(0.650)	(0.528)	(0.593)	(0.556)	(0.769)
EPUIxESI	-2.249	-3.033	-2.525	-2.940*	-3.004	-2.735	-1.438	-2.684*	-2.052	-3.457*
	(1.577)	(2.250)	(1.623)	(1.532)	(2.014)	(1.895)	(1.701)	(1.556)	(1.594)	(1.998)
Constant	0.040*	-0.007	0.008	0.009	-0.005	0.022	-0.002	0.025	-0.015	-0.015
	(0.024)	(0.025)	(0.028)	(0.029)	(0.029)	(0.031)	(0.027)	(0.024)	(0.027)	(0.039)
N	230	230	230	230	230	230	230	230	230	230
Adj. R^2	0.001	0.009	0.000	0.002	0.004	-0.001	0.000	0.006	-0.005	0.004
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	0.002	-0.002	-0.001	0.009	-0.001	-0.004	0.013	-0.009	0.010	-0.033
	(0.031)	(0.031)	(0.037)	(0.036)	(0.035)	(0.041)	(0.028)	(0.030)	(0.035)	(0.053)
CLI	0.088	0.196**	0.154*	0.205**	0.185*	0.197**	0.260***	0.170*	0.159*	0.251**
	(0.081)	(0.097)	(0.086)	(0.103)	(0.097)	(0.096)	(0.082)	(0.088)	(0.082)	(0.113)
EPUIxCLI	-0.070	0.014	-0.085	-0.033	-0.011	-0.064	0.084	-0.114	-0.053	-0.024
	(0.151)	(0.151)	(0.169)	(0.199)	(0.180)	(0.200)	(0.141)	(0.172)	(0.154)	(0.251)
Constant	0.041*	-0.005	0.009	0.010	-0.003	0.023	0.001	0.025	-0.014	-0.015
	(0.024)	(0.024)	(0.027)	(0.028)	(0.028)	(0.031)	(0.026)	(0.024)	(0.026)	(0.038)
N	230	230	230	230	230	230	230	230	230	230
Adj. R^2	0.000	0.049	0.020	0.037	0.031	0.028	0.085	0.038	0.024	0.035

Panel C: direct equity risk premia forecasts with EPUI and REC

EPUI	0.005	-0.019	0.010	0.005	-0.004	0.015	-0.016	-0.011	0.011	-0.023
	(0.048)	(0.050)	(0.041)	(0.049)	(0.054)	(0.044)	(0.040)	(0.045)	(0.040)	(0.046)
REC	0.031	0.050	0.138**	0.088	0.078	0.135**	0.088*	0.047	0.117**	0.135
	(0.047)	(0.048)	(0.057)	(0.059)	(0.054)	(0.063)	(0.052)	(0.049)	(0.054)	(0.086)
EPUIxREC	0.016	-0.008	0.023	0.017	0.016	0.056	-0.026	0.014	0.009	0.033
	(0.076)	(0.084)	(0.086)	(0.088)	(0.089)	(0.096)	(0.062)	(0.078)	(0.084)	(0.123)
Constant	0.054*	0.015	0.066**	0.046	0.028	0.078**	0.035	0.045*	0.033	0.042
	(0.030)	(0.030)	(0.026)	(0.032)	(0.036)	(0.031)	(0.032)	(0.026)	(0.026)	(0.027)
N	230	230	230	230	230	230	230	230	230	230
Adj. R^2	-0.007	0.003	0.086	0.022	0.017	0.062	0.029	0.003	0.062	0.038

Lastly economic circumstances, as measured by CLI, are found to have a significant positive impact on yearly equity risk premia for each sector, except oil and gas, between 1997 and 2016. The biggest effect is found for the telecommunications sector, where a one basis point increase in CLI on average leads to a 0.260% increase in equity risk premium. When REC is taken as measure of economic circumstances the equity risk premium of industrials, health care, telecommunication and financials are positively affected by economic circumstances. These results are consistent with section 4.4.3 and 4.4.4 where CLI and REC also influenced future sectoral equity risk premia. When comparing the results over time, REC is found to have a significant positive influence on yearly equity risk premia for each sector between 1997 and 2006, as shown in table C.8. Remarkable in table C.8 is that basic materials experience a significant negative impact of economic conditions on equity risk premia, when ESI and CLI are used as proxy for economic circumstances. Table C.9 shows that an increase in economic circumstances, as measured by CLI, leads to an increase in yearly equity risk premia for each sector, between 2007 and 2016. When economic circumstances are measured by ESI and REC no such effect is found.

Chapter 5 Conclusion

This paper examines the influence of political uncertainty on stocks across different industries, under differing economic circumstances, in the UK between 1997 and 2016. This is done by first researching the impact of political uncertainty, under differing economic conditions, on stock volatility. After doing so, the influence on direct, three month, half yearly and yearly equity risk premia are considered. In performing this research the model of Pástor and Veronesi (2013) is used as a guideline. This model allows to test the impact of political uncertainty and economic circumstances on stock markets using linear regressions.

To examine the influence of political uncertainty on stocks in the UK, all companies that have been traded on the FTSE 100 index between 01-01-1997 and 31-12-2016 are considered. Political uncertainty is measured using the Economic Policy Uncertainty Index (EPUI) of Baker, Bloom and Davis (2016). Three different proxies for economic circumstances are used: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). First, the influence of economic circumstances on political uncertainty is examined to get a better understanding of both variables. Secondly, the impact of political uncertainty on the aggregate of all companies traded on the FTSE 100 is researched. Finally, the companies are divided into groups, using the Industrial Classification Benchmark (ICB), to examine the impact of political uncertainty across different industries. Besides examining the influence of political uncertainty on stock markets over the entire period, the data is split into two sub-periods to check for time varying effects. More specifically, the sub-periods researched range from 01-01-1997 to 21-12-2006 and from 01-01-2007 to 31-12-2016.

The results show that political uncertainty is larger under weaker economic circumstances, when CLI is used as proxy of economic circumstances. No such effect is found when ESI and REC are used as a proxy of economic circumstances. When looking at the impact of political uncertainty of stock market volatility, the results suggests that the FTSE 100 becomes more volatile as political uncertainty rises. This effect is found both when the ESI and CLI are used as a measure for economic circumstances. When REC is used as a control variable no such effect is found. This impact of political uncertainty on volatility of the entire FTSE 100 does not depend on the state of the economy. Economic circumstances on itself do, however, significantly influence volatility on the FTSE 100. Both ESI and CLI have a significant negative impact on volatility of the entire FTSE 100 from 1997 to 2016. When looking across sectors, higher political uncertainty leads to higher volatility in each sector of the UK stock market, except the health care industry, when ESI and CLI are taken as proxies of economic conditions. For REC only three out of ten sectors experience higher stock volatility when political uncertainty increases. Political uncertainty furthermore has a stronger effect on volatility in worse economic circumstances for the basic materials, consumer goods, utilities and financials sectors, when CLI is used to measure economic conditions. When ESI is used as a measure, this effect is only found for utilities. Eight out of ten sectors experience such an effect when REC is used as a measure of economic circumstances.

Equity risk premia are less influenced by political uncertainty when looking at the entire FTSE 100. Only the three month equity risk premium on average experiences a decrease when political uncertainty increases, when REC is used as measure of economic circumstances. In all other cases no evidence is found of political uncertainty affecting the FTSE 100 between 1997 and 2016. Next to that, there is no evidence of a bigger impact of political uncertainty on equity risk premia under weaker economic circumstances between 1997 and 2016. There is, on the other hand, evidence of economic circumstances affecting equity risk premia.

When looking across sectors, the oil & gas and basic materials sector on average demand a direct higher equity risk premium as political uncertainty increases, when REC is used as proxy for economic circumstances, between 1997 and 2016. When looking over time, little evidence is found for political uncertainty influencing direct equity risk premia. Based on these findings it is concluded that larger political uncertainty does not has a negative influence on direct equity risk premia. When ESI is used as proxy of economic circumstances, political uncertainty has a significant more negative impact on direct equity risk premia under weaker economic conditions for the basic materials sector between 1997 and 2016. A similar effect is found for the oil & gas, basic materials and industrials sector, when REC is a proxy of economic circumstances, between 1997 and 2016. Finally, economic circumstances on itself seem to affect the direct equity risk premium for some sectors.

Evidence suggests that sectoral future equity risk premia do not experience any significant influence of changing political uncertainty, regardless what measure of economic conditions is used, between 1997 and 2016. Thus, larger political uncertainty does not demand a higher equity risk premium between 1997 and 2016 in the UK. Three month equity risk premia of the technology sector on average increase when political uncertainty increases under worsening economic conditions. This effect is found when ESI and REC are taken as a proxy of economic conditions. Half yearly equity risk premia of the technology sector experience a similar effect, when REC is used as proxy for economic circumstances, between 1997 and 2016. In all other cases no interaction effect of political uncertainty and economic circumstances on future equity risk premia is found. Meaning that an increase in political uncertainty does not lead to a higher demanded future equity risk premium under weaker economic conditions for all sectors, except the three and six month equity risk premium of the technology sector.

To conclude, the UK stock market does experience some influence of political uncertainty on volatility and equity risk premia between 1997 and 2016. Political uncertainty is mainly found to affect stock market volatility. Economic circumstances do up to some extent contribute to the impact of political uncertainty on the UK stock market. The effects of political uncertainty and economic circumstances differ per industry in the UK between 1997 and 2016.

This study provides a large empirical analysis on how stocks are affected by changes in political circumstances. The research partly contradicts previous literature, suggesting that the UK stock market behaves differently than

some other markets. The research is in line with previous literature on two account: (1) the findings are partly similar to previous research in the sense that there is some evidence that political uncertainty is higher under weaker economic conditions, and (2), it has similar findings to previous literature in the sense that volatility is found to be higher under larger political uncertainty. This research contradicts existing literature on two other accounts. Firstly, when looking into direct equity risk premia. In contrast to previous literature this paper finds no or little evidence that direct equity risk premia fall when political uncertainty rises. Secondly, similar to Perotti and Oijen (2001) and Beaulieu et. al. (2005) this paper also finds no evidence that future equity risk premia rise as political uncertainty becomes larger. This finding is in contrast with the model of Pástor and Veronesi (2013), which is used as framework of this paper. As the findings of this paper partly contradict with existing literature, it is advisable for investors to first examine the impact of political uncertainty on a certain market before positioning their portfolio. Knowing the exact effect of political uncertainty on each sector is important for portfolio managers in order to diversify political risks.

I acknowledge that the proxies for economic circumstances nor the proxy for political uncertainty used in this research are perfect. In order to minimalize this imperfection, three measures for economic circumstances are used in this paper. Interpreting the exact effect of economic circumstances on stocks remains, however, hard due to varying results for the different measures of economic circumstances. For political uncertainty, no alternative measures were found. This led to the complete reliance on the economic policy uncertainty index. Although this measure is also used in previous research this measure is not perfect leading to imperfections in the outcomes of this paper. Apart from these measurement limitations, I acknowledge that researching the effects of political uncertainty on stock correlations would have been interesting. This research is not performed due to time constraints but would have given better insight in how the market reacts to political uncertainty. Next to that it would be interesting to examine the effects of political uncertainty across more sectors. The smaller the sectors examined, the more precise estimations of the effects of political uncertainty on the stock market is found. Besides that, this paper splits the data into two-subperiods of ten years. Investors with a shorter investment horizon might want to investigate shorter time periods of data.

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Appendix A EPUI and economic circumstances over time

Table A.1 shows the impact of economic circumstances on political uncertainty over time.

Table A.1 The influence of economic circumstances on political uncertainty over time

This table shows how the Economic Policy Uncertainty Index (EPUI) is influenced by the Economic Sentiment Indicator (ESI), Composite Leading Indicator (CLI) and a recession dummy (REC) over time. The first three regressions show how political uncertainty is affected by economic circumstances from 1997 to 2006. The last three regressions show how political uncertainty is affected by economic circumstances from 2007 to 2016.

	1997 - 2006			2007-2016		
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	EPUI	EPUI	EPUI	EPUI	EPUI	EPUI
ESI	-0.539			-0.757		
	(1.040)			(0.947)		
CLI		-0.492***			-0.138**	
		(0.160)			(0.059)	
REC			-0.051			-0.065
			(0.056)			(0.050)
lagEPUI	-0.271***	-0.307***	-0.267***	-0.329***	-0.344***	-0.329***
	(0.091)	(0.068)	(0.090)	(0.091)	(0.090)	(0.092)
Constant	0.004	0.009	-0.022	0.017	0.015	-0.004
	(0.028)	(0.022)	(0.040)	(0.023)	(0.022)	(0.029)
Observations	118	118	118	120	120	120
Adj R-squared	0.055	0.108	0.060	0.090	0.103	0.094

Appendix B Volatility

Table B.1 shows the impact of political uncertainty and economic circumstances on the entire FTSE 100 over time. Table B.2 and B.3 examine the impact of political uncertainty and economic circumstances across industries, over time. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries are referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively.

Table B.1 Volatility, political uncertainty and economic circumstances on the UK stock market over time

This table shows how political uncertainty and economic circumstances affect volatility on the UK stock market over time. The first three regressions show how the FTSE is affected by political uncertainty and economic circumstances from 1997 to 2006. The last three regressions show how the FTSE is affected by political uncertainty and economic circumstances from 2007 to 2016.

		1997 - 2006			2007 - 2016	
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	FTSE	FTSE	FTSE	FTSE	FTSE	FTSE
EPUI	0.013**	0.011**	0.010	0.015***	0.011**	0.004
	(0.005)	(0.005)	(0.007)	(0.006)	(0.005)	(0.005)
ESI	-0.101*			-0.151*		
	(0.059)			(0.084)		
EPUIxESI	-0.255			-0.356		
	(0.184)			(0.303)		
CLI		-0.027**			-0.014*	
		(0.011)			(0.008)	
EPUIxCLI		0.748			-0.088*	
		(3.288)			(0.045)	
REC			-0.001			-0.009**
			(0.003)			(0.004)
EPUIxREC			-0.007			-0.035*
			(0.011)			(0.020)
lagFTSE	0.649***	0.621***	0.664***	0.630***	0.630***	0.623***
	(0.068)	(0.070)	(0.069)	(0.078)	(0.084)	(0.098)
Constant	0.017***	0.018***	0.016***	0.019***	0.018***	0.016***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)
Observations	119	119	119	120	120	120
Adj R-squared	0.472	0.475	0.449	0.493	0.531	0.508

Table B.2 The influence of political uncertainty and economic circumstances on volatility from 01/01/1997 to 31/12/2006

This table shows how political uncertainty and economic circumstances influence volatility across ten different industries. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: volatility forecast with EPUI and ESI					
EPUI	0.011	0.019***	0.022***	0.012**	0.016**	0.008	0.021*	0.021***	0.018***	0.029**
	(0.007)	(0.007)	(0.006)	(0.006)	(0.007)	(0.008)	(0.011)	(0.006)	(0.006)	(0.014)
ESI	-0.055	-0.087	-0.056	0.019	-0.043	-0.124	-0.199**	-0.002	-0.080	-0.005
	(0.082)	(0.080)	(0.073)	(0.049)	(0.063)	(0.090)	(0.093)	(0.066)	(0.075)	(0.168)
EPUIxESI	-0.465	-0.212	-0.298	-0.247	-0.378	-0.438	-0.394	-0.630***	-0.546**	-0.501
	(0.318)	(0.252)	(0.231)	(0.204)	(0.296)	(0.334)	(0.294)	(0.223)	(0.237)	(0.483)
lagY	0.545***	0.565***	0.773***	0.775***	0.787***	0.628***	0.744***	0.759***	0.697***	0.708***
	(0.096)	(0.075)	(0.057)	(0.082)	(0.051)	(0.076)	(0.049)	(0.069)	(0.064)	(0.073)
Constant	0.041***	0.043***	0.021***	0.018***	0.019***	0.036***	0.031***	0.021***	0.028***	0.044***
	(0.009)	(0.008)	(0.006)	(0.006)	(0.005)	(0.007)	(0.007)	(0.006)	(0.006)	(0.012)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.325	0.348	0.632	0.611	0.643	0.417	0.596	0.621	0.525	0.501
					Panel B: volatility forecast with EPUI and CLI					
EPUI	0.008	0.017**	0.020***	0.010*	0.014*	0.004	0.019	0.019***	0.015*	0.022
	(0.007)	(0.007)	(0.006)	(0.006)	(0.008)	(0.007)	(0.011)	(0.007)	(0.008)	(0.014)
CLI	-0.032**	-0.025*	-0.022*	-0.023**	-0.030**	-0.040**	-0.033**	-0.022*	-0.033**	-0.060**
	(0.014)	(0.015)	(0.012)	(0.011)	(0.013)	(0.016)	(0.016)	(0.013)	(0.013)	(0.030)
EPUIxCLI	-0.005	-0.051	-0.039	-0.031	-0.034	-0.003	-0.092	-0.069	-0.022	0.062
	(0.042)	(0.044)	(0.046)	(0.040)	(0.049)	(0.045)	(0.058)	(0.047)	(0.054)	(0.078)
lagY	0.512***	0.550***	0.756***	0.740***	0.752***	0.573***	0.732***	0.727***	0.661***	0.688***
	(0.079)	(0.074)	(0.059)	(0.079)	(0.053)	(0.075)	(0.047)	(0.074)	(0.069)	(0.084)
Constant	0.045***	0.044***	0.022***	0.020***	0.022***	0.042***	0.032***	0.023***	0.031***	0.048***
	(0.008)	(0.008)	(0.006)	(0.006)	(0.005)	(0.008)	(0.006)	(0.006)	(0.007)	(0.014)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.326	0.361	0.637	0.623	0.652	0.421	0.596	0.207	0.520	0.514
					Panel C: volatility forecast with EPUI and REC					
EPUI	0.005	0.013	0.013**	0.003	0.004	-0.005	-0.004	0.011	0.003	-0.003
	(0.009)	(0.010)	(0.006)	(0.006)	(0.008)	(0.008)	(0.009)	(0.010)	(0.005)	(0.012)
REC	-0.006	0.001	-0.002	-0.001	-0.001	-0.005	-0.006	0.000	-0.002	-0.010
	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	(0.006)	(0.004)	(0.004)	(0.008)
EPUIxREC	-0.010	-0.012	-0.019	-0.020*	-0.025**	-0.027	-0.050**	-0.021	-0.031*	-0.065***
	(0.013)	(0.014)	(0.011)	(0.012)	(0.011)	(0.017)	(0.020)	(0.014)	(0.016)	(0.023)
lagY	0.527***	0.573***	0.780***	0.776***	0.796***	0.612***	0.747***	0.771***	0.712***	0.705***
	(0.081)	(0.075)	(0.061)	(0.080)	(0.057)	(0.077)	(0.058)	(0.075)	(0.059)	(0.066)
Constant	0.040***	0.042***	0.019***	0.017***	0.017***	0.034***	0.026***	0.019***	0.025***	0.039***
	(0.007)	(0.008)	(0.005)	(0.006)	(0.005)	(0.007)	(0.006)	(0.006)	(0.006)	(0.011)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.312	0.340	0.632	0.618	0.646	0.412	0.607	0.603	0.520	0.523

Table B.3 The influence of political uncertainty and economic circumstances on volatility from 01/01/2007 to 31/12/2016

This table shows how political uncertainty and economic circumstances influence volatility across ten different industries. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: volatility forecast with EPUI and ESI					
EPUI	0.018**	0.028***	0.015***	0.021***	0.016**	0.008	0.012	0.008	0.028***	0.0146
	(0.007)	(0.009)	(0.005)	(0.007)	(0.006)	(0.006)	(0.008)	(0.005)	(0.009)	(0.011)
ESI	-0.204	-0.192	-0.114	-0.067	-0.118	-0.165**	-0.169	-0.093	-0.175	-0.291**
	(0.126)	(0.132)	(0.084)	(0.080)	(0.082)	(0.081)	(0.107)	(0.087)	(0.116)	(0.128)
EPUIxESI	-0.364	-0.537	-0.248	-0.287	-0.054	-0.317	-0.282	-0.251	-0.499	-0.426
	(0.412)	(0.445)	(0.263)	(0.326)	(0.261)	(0.310)	(0.317)	(0.294)	(0.395)	(0.346)
lagY	0.646***	0.783***	0.716***	0.753***	0.722***	0.484***	0.547***	0.606***	0.769***	0.512***
	(0.083)	(0.071)	(0.075)	(0.078)	(0.074)	(0.105)	(0.085)	(0.071)	(0.055)	(0.120)
Constant	0.033***	0.027***	0.024***	0.021***	0.026***	0.037***	0.037***	0.026***	0.022***	0.047***
	(0.007)	(0.008)	(0.006)	(0.006)	(0.006)	(0.007)	(0.006)	(0.004)	(0.005)	(0.011)
N	120	120	120	120	120	120	120	120	120	120
Adj. R^2	0.518	0.667	0.573	0.607	0.584	0.317	0.389	0.400	0.662	0.379
					Panel B: volatility forecast with EPUI and CLI					
EPUI	0.014**	0.022***	0.012**	0.018***	0.013**	0.007	0.009	0.004	0.020***	0.014
	(0.007)	(0.008)	(0.005)	(0.006)	(0.006)	(0.005)	(0.008)	(0.004)	(0.007)	(0.011)
CLI	-0.022**	-0.020*	-0.014*	-0.016*	-0.015*	-0.012	-0.015	-0.011*	-0.020**	-0.022*
	(0.010)	(0.012)	(0.007)	(0.009)	(0.009)	(0.008)	(0.010)	(0.006)	(0.009)	(0.013)
EPUIxCLI	-0.069	-0.104**	-0.055*	-0.064**	-0.044	-0.037	-0.063	-0.070**	-0.146***	-0.024
	(0.052)	(0.050)	(0.031)	(0.029)	(0.032)	(0.030)	(0.052)	(0.031)	(0.052)	(0.053)
lagY	0.646***	0.790***	0.721***	0.741***	0.732***	0.487***	0.569***	0.617***	0.784***	0.532***
	(0.086)	(0.074)	(0.079)	(0.073)	(0.076)	(0.105)	(0.095)	(0.078)	(0.059)	(0.120)
Constant	0.033***	0.025***	0.023***	0.021***	0.025***	0.037***	0.035***	0.024***	0.019***	0.045***
	(0.008)	(0.009)	(0.006)	(0.006)	(0.007)	(0.007)	(0.007)	(0.005)	(0.005)	(0.011)
N	120	120	120	120	120	120	120	120	120	120
Adj. R^2	0.534	0.681	0.594	0.634	0.600	0.287	0.402	0.499	0.704	0.346
					Panel C: volatility forecast with EPUI and REC					
EPUI	0.013*	0.015*	0.008	0.008*	0.009*	0.002	0.008	0.001	0.008	0.014
	(0.007)	(0.008)	(0.006)	(0.005)	(0.005)	(0.006)	(0.007)	(0.006)	(0.008)	(0.014)
REC	-0.020***	-0.019***	-0.008**	-0.010**	-0.010*	-0.012***	-0.011**	-0.015***	-0.011*	-0.011*
	(0.005)	(0.007)	(0.004)	(0.005)	(0.006)	(0.004)	(0.005)	(0.004)	(0.007)	(0.007)
EPUIxREC	-0.016	-0.040*	-0.021	-0.042**	-0.020	-0.018	-0.015	-0.017	-0.066**	-0.006
	(0.021)	(0.021)	(0.015)	(0.018)	(0.016)	(0.012)	(0.024)	(0.011)	(0.027)	(0.024)
lagY	0.563***	0.718***	0.690***	0.732***	0.699***	0.401***	0.537***	0.490***	0.765***	0.515***
	(0.090)	(0.089)	(0.079)	(0.093)	(0.087)	(0.090)	(0.092)	(0.081)	(0.066)	(0.115)
Constant	0.035***	0.030***	0.024***	0.019***	0.025***	0.040***	0.034***	0.028***	0.018***	0.043***
	(0.008)	(0.010)	(0.006)	(0.007)	(0.007)	(0.006)	(0.007)	(0.005)	(0.006)	(0.011)
N	120	120	120	120	120	120	120	120	120	120
Adj. R^2	0.530	0.680	0.580	0.645	0.598	0.318	0.386	0.456	0.691	0.329

Appendix C Equity Risk Premia

Table C.1 shows the impact of political uncertainty and economic circumstances on the entire FTSE 100 over time. Table C.2 to C.9 examine the impact of political uncertainty and economic circumstances on direct and future equity risk premia across industries over time.

Table C.1 Equity risk premia, political uncertainty and economic circumstances on the UK stock market over time

This table shows how political uncertainty and economic circumstances affect equity risk premia on the UK stock market over time. The first four regressions show how the FTSE 100 is affected by political uncertainty and economic circumstances from 1997 to 2006. The last four regressions show how the FTSE 100 is affected by political uncertainty and economic circumstances from 2007 to 2016.

		1997 - 2006				2007 - 2016		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	h=0	h=3	h=6	h=12	h=0	h=3	h=6	h=12
				Panel A: EPUI forecast with ESI				
EPUI	0.014	-0.027**	-0.024	-0.023	0.011	-0.008	-0.027	-0.024
	(0.013)	(0.014)	(0.024)	(0.036)	(0.011)	(0.015)	(0.027)	(0.047)
ESI	0.049	0.081	-0.491	-0.245	0.061	0.878***	1.061***	1.053*
	(0.144)	(0.231)	(0.298)	(0.491)	(0.104)	(0.198)	(0.377)	(0.563)
EPUIxESI	0.383	-0.615	0.827	-0.001	0.354	0.082	-0.044	-2.863
	(0.455)	(0.549)	(0.988)	(1.144)	(0.317)	(0.419)	(1.159)	(2.499)
Constant	-0.001	-0.003	-0.007	-0.020	0.000	0.001	0.000	-0.007
	(0.004)	(0.010)	(0.017)	(0.027)	(0.004)	(0.009)	(0.018)	(0.029)
Observations	119	119	119	119	120	120	117	111
Adj R-squared	-0.007	-0.006	-0.001	-0.022	-0.011	0.124	0.075	0.057
				Panel B: EPUI forecast with CLI				
EPUI	0.010	-0.015	-0.014	-0.023	0.007	-0.002	-0.008	0.009
	(0.015)	(0.012)	(0.021)	(0.030)	(0.014)	(0.012)	(0.020)	(0.033)
CLI	-0.028	0.133***	0.052	-0.053	-0.029**	0.139***	0.230***	0.260***
	(0.031)	(0.049)	(0.085)	(0.129)	(0.013)	(0.027)	(0.051)	(0.075)
EPUIxCLI	0.102	-0.010	-0.230*	-0.297*	-0.007	-0.015	0.042	0.033
	(0.142)	(0.082)	(0.137)	(0.162)	(0.066)	(0.094)	(0.157)	(0.155)
Constant	0.000	-0.006	-0.010	-0.022	-0.002	0.003	0.005	-0.001
	(0.004)	(0.010)	(0.017)	(0.027)	(0.004)	(0.007)	(0.013)	(0.0251)
Observations	119	119	119	119	120	120	117	111
Adj R-squared	0.008	0.064	-0.004	-0.011	0.025	0.332	0.397	0.240
				Panel C: EPUI forecast with REC				
EPUI	0.025	-0.023	-0.017	-0.013	0.017	-0.022*	-0.029	-0.005
	(0.017)	(0.015)	(0.024)	(0.030)	(0.016)	(0.013)	(0.019)	(0.040)
REC	-0.007	0.028	0.081***	0.142***	0.008	0.038	0.055	0.028
	(0.008)	(0.017)	(0.028)	(0.045)	(0.006)	(0.026)	(0.049)	(0.076)
EPUIxREC	0.026	0.005	-0.008	-0.012	0.020	-0.038	-0.002	0.040
	(0.025)	(0.028)	(0.044)	(0.064)	(0.024)	(0.041)	(0.077)	(0.122)
Constant	-0.004	0.011	0.033**	0.051**	0.002	0.012	0.017	0.004
	(0.006)	(0.010)	(0.015)	(0.020)	(0.005)	(0.009)	(0.014)	(0.026)
Observations	119	119	119	119	120	120	117	111
Adj R-squared	0.002	0.027	0.137	0.202	-0.008	0.035	0.032	-0.019

Direct Equity Risk Premia

Table C.2 The impact of political uncertainty and economic circumstances on direct equity risk premia from 01/01/1997 to 31/12/2006
This table show the impact of political uncertainty and economic circumstances on direct equity risk premia across ten different industries between 01/01/1997 and 31/12/2006. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	0.025	0.035	0.010	0.021	0.000	0.009	-0.017	0.014	0.016	0.030
	(0.018)	(0.022)	(0.017)	(0.013)	(0.017)	(0.016)	(0.031)	(0.019)	(0.016)	(0.032)
ESI	-0.291	0.026	-0.045	-0.236	-0.050	0.185	0.606	-0.023	-0.062	0.237
	(0.211)	(0.246)	(0.193)	(0.149)	(0.187)	(0.184)	(0.393)	(0.144)	(0.185)	(0.437)
EPUIxESI	1.080	1.697**	1.064*	1.103**	1.080*	-0.149	1.101	0.364	0.139	1.391
	(0.668)	(0.779)	(0.611)	(0.473)	(0.608)	(0.582)	(1.149)	(0.413)	(0.584)	(1.261)
Constant	0.006	0.001	0.000	0.004	0.000	0.000	-0.013	0.001	0.001	-0.002
	(0.006)	(0.007)	(0.005)	(0.004)	(0.005)	(0.005)	(0.015)	(0.005)	(0.005)	(0.014)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.014	0.014	0.001	0.007	-0.005	-0.009	-0.002	-0.003	-0.009	-0.006
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	0.020	0.030	0.005	0.018	-0.005	0.006	-0.010	0.006	0.012	0.024
	(0.019)	(0.022)	(0.017)	(0.014)	(0.016)	(0.015)	(0.031)	(0.017)	(0.016)	(0.029)
CLI	-0.050	-0.051	-0.035	-0.031	-0.043	-0.005	0.119	-0.056	-0.037	-0.046
	(0.039)	(0.046)	(0.036)	(0.028)	(0.033)	(0.033)	(0.108)	(0.038)	(0.034)	(0.098)
EPUIxCLI	0.108	0.163	0.178	0.151*	0.107	0.127	0.253	0.159	0.059	0.192
	(0.119)	(0.139)	(0.108)	(0.084)	(0.101)	(0.122)	(0.250)	(0.150)	(0.103)	(0.216)
Constant	0.007	0.003	0.002	0.005	0.001	0.002	-0.012	0.003	0.002	0.000
	(0.006)	(0.007)	(0.005)	(0.004)	(0.005)	(0.005)	(0.015)	(0.004)	(0.005)	(0.014)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.011	0.019	0.008	0.033	-0.003	-0.010	0.004	0.035	-0.005	-0.013
					Panel C: direct equity risk premia forecasts with EPUI and REC					
EPUI	0.054**	0.076***	0.035	0.037**	0.019	0.005	-0.003	0.021	0.020	0.064
	(0.025)	(0.025)	(0.023)	(0.018)	(0.021)	(0.022)	(0.043)	(0.032)	(0.022)	(0.042)
REC	-0.017	-0.014	-0.011	0.000	-0.010	-0.014	-0.035	0.000	-0.013	-0.033
	(0.012)	(0.014)	(0.011)	(0.008)	(0.010)	(0.010)	(0.028)	(0.009)	(0.010)	(0.026)
EPUIxREC	0.065*	0.088**	0.055	0.030	0.042	-0.006	0.037	0.015	0.012	0.079
	(0.037)	(0.035)	(0.034)	(0.027)	(0.032)	(0.032)	(0.059)	(0.034)	(0.032)	(0.056)
Constant	-0.002	-0.005	-0.005	0.004	-0.004	-0.006	-0.030	0.001	-0.005	-0.018
	(0.008)	(0.011)	(0.007)	(0.006)	(0.007)	(0.007)	(0.024)	(0.007)	(0.007)	(0.018)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.036	0.041	0.010	0.010	-0.003	-0.007	-0.006	-0.015	0.054	0.005

Table C.3 The impact of political uncertainty and economic circumstances on direct equity risk premia from 01/01/2007 to 31/12/2016
This table show the impact of political uncertainty and economic circumstances on direct equity risk premia across ten different industries between 01/01/2007 and 31/12/2016. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	0.013	0.017	0.010	0.001	0.007	0.006	0.025*	0.003	0.005	0.001
	(0.014)	(0.023)	(0.012)	(0.012)	(0.011)	(0.010)	(0.014)	(0.009)	(0.015)	(0.015)
ESI	0.069	-0.046	0.089	-0.095	0.095	-0.061	0.086	-0.001	-0.033	0.153
	(0.171)	(0.219)	(0.113)	(0.180)	(0.122)	(0.102)	(0.155)	(0.100)	(0.185)	(0.131)
EPUIxESI	0.691	0.796	0.259	0.100	0.017	-0.099	-0.039	0.350	-0.058	-0.583
	(0.509)	(0.628)	(0.404)	(0.475)	(0.409)	(0.324)	(0.475)	(0.342)	(0.463)	(0.587)
Constant	-0.001	-0.004	0.004	0.006	-0.001	0.010***	0.004	0.002	-0.002	0.008
	(0.006)	(0.011)	(0.005)	(0.006)	(0.005)	(0.003)	(0.005)	(0.003)	(0.007)	(0.006)
N	120	120	120	120	120	120	120	120	120	120
Adj. R^2	-0.008	-0.015	-0.017	-0.022	-0.021	-0.019	0.005	0.040	-0.025	-0.010
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	0.010	0.005	0.003	-0.005	-0.001	0.005	0.018	0.001	-0.004	-0.012
	(0.017)	(0.027)	(0.016)	(0.017)	(0.015)	(0.011)	(0.015)	(0.010)	(0.020)	(0.018)
CLI	-0.042*	-0.093**	-0.028	-0.039	-0.035*	-0.013	-0.041**	-0.008	-0.047*	-0.027
	(0.023)	(0.039)	(0.019)	(0.026)	(0.019)	(0.010)	(0.018)	(0.012)	(0.024)	(0.018)
EPUIxCLI	0.034	-0.053	-0.058	-0.057	-0.067	-0.009	-0.057	-0.024	-0.089	-0.181**
	(0.079)	(0.129)	(0.093)	(0.114)	(0.092)	(0.044)	(0.077)	(0.039)	(0.119)	(0.076)
Constant	-0.002	-0.006	0.003	0.004	-0.002	0.009***	0.003	0.002	-0.004	0.006
	(0.006)	(0.010)	(0.005)	(0.005)	(0.005)	(0.003)	(0.005)	(0.003)	(0.006)	(0.006)
N	120	120	120	120	120	120	120	120	120	120
Adj. R^2	0.027	0.077	0.016	0.029	0.031	-0.008	0.084	-0.018	0.049	0.042
					Panel C: direct equity risk premia forecasts with EPUI and REC					
EPUI	0.030*	0.029	0.019	0.008	0.011	0.012	0.021	0.011	0.009	0.003
	(0.016)	(0.029)	(0.015)	(0.016)	(0.014)	(0.012)	(0.019)	(0.010)	(0.021)	(0.019)
REC	-0.003	-0.011	0.018**	0.025**	0.017	0.001	0.001	0.006	0.016	0.014
	(0.013)	(0.015)	(0.009)	(0.012)	(0.011)	(0.007)	(0.008)	(0.006)	(0.013)	(0.013)
EPUIxREC	0.058*	0.044	0.022	0.009	0.007	0.017	-0.013	0.027	0.008	0.005
	(0.033)	(0.042)	(0.026)	(0.023)	(0.022)	(0.023)	(0.028)	(0.023)	(0.028)	(0.033)
Constant	-0.002	-0.007	0.009	0.014**	0.004	0.010**	0.004	0.004	0.003	0.013
	(0.007)	(0.015)	(0.006)	(0.006)	(0.006)	(0.004)	(0.006)	(0.004)	(0.009)	(0.008)
N	120	120	120	120	120	120	120	120	120	120
Adj. R^2	-0.002	-0.016	0.008	0.019	-0.001	-0.017	0.003	-0.009	-0.010	-0.015

Three month ERP

Table C.4 Political uncertainty, economic circumstances and three month equity risk premia from 01/01/1997 to 31/12/2006

This table show the impact of political uncertainty and economic circumstances on three month equity risk premia across ten different industries between 01/01/1997 and 31/12/2006. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	0.013	0.017	0.010	0.001	0.007	0.006	0.025*	0.003	0.005	0.001
	(0.014)	(0.023)	(0.012)	(0.012)	(0.011)	(0.010)	(0.014)	(0.009)	(0.015)	(0.015)
ESI	0.069	-0.046	0.089	-0.095	0.095	-0.061	0.086	-0.001	-0.033	0.153
	(0.171)	(0.219)	(0.113)	(0.180)	(0.122)	(0.102)	(0.155)	(0.100)	(0.185)	(0.131)
EPUIxESI	0.691	0.796	0.259	0.100	0.017	-0.099	-0.039	0.350	-0.058	-0.583
	(0.509)	(0.628)	(0.404)	(0.475)	(0.409)	(0.324)	(0.475)	(0.342)	(0.463)	(0.587)
Constant	-0.001	-0.004	0.004	0.006	-0.001	0.010***	0.004	0.002	-0.002	0.008
	(0.006)	(0.011)	(0.005)	(0.006)	(0.005)	(0.003)	(0.005)	(0.003)	(0.007)	(0.006)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	-0.008	-0.015	-0.017	-0.022	-0.021	-0.019	0.005	0.040	-0.025	-0.010
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	0.010	0.005	0.003	-0.005	-0.001	0.005	0.018	0.001	-0.004	-0.012
	(0.017)	(0.027)	(0.016)	(0.017)	(0.015)	(0.011)	(0.015)	(0.010)	(0.020)	(0.018)
CLI	-0.042*	-0.093**	-0.028	-0.039	-0.035*	-0.013	-0.041**	-0.008	-0.047*	-0.027
	(0.023)	(0.039)	(0.019)	(0.026)	(0.019)	(0.010)	(0.018)	(0.012)	(0.024)	(0.018)
EPUIxCLI	0.034	-0.053	-0.058	-0.057	-0.067	-0.009	-0.057	-0.024	-0.089	-0.181**
	(0.079)	(0.129)	(0.093)	(0.114)	(0.092)	(0.044)	(0.077)	(0.039)	(0.119)	(0.076)
Constant	-0.002	-0.006	0.003	0.004	-0.002	0.009***	0.003	0.002	-0.004	0.006
	(0.006)	(0.010)	(0.005)	(0.005)	(0.005)	(0.003)	(0.005)	(0.003)	(0.006)	(0.006)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.027	0.077	0.016	0.029	0.031	-0.008	0.084	-0.018	0.049	0.042
					Panel C: direct equity risk premia forecasts with EPUI and REC					
EPUI	0.030*	0.029	0.019	0.008	0.011	0.012	0.021	0.011	0.009	0.003
	(0.016)	(0.029)	(0.015)	(0.016)	(0.014)	(0.012)	(0.019)	(0.010)	(0.021)	(0.019)
REC	-0.003	-0.011	0.018**	0.025**	0.017	0.001	0.001	0.006	0.016	0.014
	(0.013)	(0.015)	(0.009)	(0.012)	(0.011)	(0.007)	(0.008)	(0.006)	(0.013)	(0.013)
EPUIxREC	0.058*	0.044	0.022	0.009	0.007	0.017	-0.013	0.027	0.008	0.005
	(0.033)	(0.042)	(0.026)	(0.023)	(0.022)	(0.023)	(0.028)	(0.023)	(0.028)	(0.033)
Constant	-0.002	-0.007	0.009	0.014**	0.004	0.010**	0.004	0.004	0.003	0.013
	(0.007)	(0.015)	(0.006)	(0.006)	(0.006)	(0.004)	(0.006)	(0.004)	(0.009)	(0.008)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	-0.002	-0.016	0.008	0.019	-0.001	-0.017	0.003	-0.009	-0.010	-0.015

Table C.5 Political uncertainty, economic circumstances and three month equity risk premia from 01/01/2007 to 31/12/2016

This table show the impact of political uncertainty and economic circumstances on three month equity risk premia across ten different industries between 01/01/2007 and 31/12/2016. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	-0.002	0.004	0.001	0.010	-0.008	-0.008	-0.001	0.003	0.013	0.001
	(0.020)	(0.018)	(0.019)	(0.022)	(0.021)	(0.027)	(0.016)	(0.019)	(0.018)	(0.015)
ESI	0.418	0.601	0.390	0.319	0.482	0.588	0.540	0.463	0.491	0.153
	(0.348)	(0.402)	(0.293)	(0.456)	(0.467)	(0.462)	(0.375)	(0.467)	(0.339)	(0.131)
EPUIxESI	-1.140	-0.835	-1.014	-0.716	-0.781	-0.643	0.476	-0.917	-0.704	-0.583
	(1.135)	(1.155)	(1.056)	(1.186)	(1.313)	(1.285)	(0.580)	(0.863)	(0.810)	(0.587)
Constant	0.011	-0.018	0.006	0.009	-0.003	0.009	0.002	0.003	-0.003	0.008
	(0.014)	(0.014)	(0.012)	(0.017)	(0.017)	(0.016)	(0.014)	(0.016)	(0.013)	(0.006)
N	120	120	120	120	120	120	120	120	120	120
Adj. R^2	0.011	0.022	0.015	-0.012	0.001	0.008	0.007	0.002	0.014	0.053
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	0.012	0.019	0.013	0.031*	0.015	0.016	0.009	0.021	0.028*	0.038*
	(0.018)	(0.014)	(0.016)	(0.018)	(0.015)	(0.023)	(0.016)	(0.017)	(0.015)	(0.021)
CLI	0.138***	0.175***	0.141***	0.173***	0.199***	0.195***	0.125**	0.178***	0.160***	0.185***
	(0.037)	(0.049)	(0.034)	(0.049)	(0.061)	(0.047)	(0.053)	(0.052)	(0.038)	(0.035)
EPUIxCLI	0.054	0.033	-0.006	0.111	0.134	0.174*	0.033	0.070	0.046	-0.168**
	(0.080)	(0.086)	(0.058)	(0.093)	(0.101)	(0.094)	(0.077)	(0.087)	(0.067)	(0.076)
Constant	0.014	-0.014	0.009	0.014	0.002	0.014	0.004	0.007	0.001	0.009
	(0.011)	(0.011)	(0.009)	(0.013)	(0.013)	(0.012)	(0.013)	(0.013)	(0.010)	(0.012)
N	120	120	120	120	120	120	120	120	120	120
Adj. R^2	0.185	0.290	0.256	0.222	0.299	0.287	0.137	0.249	0.291	.0941
					Panel C: direct equity risk premia forecasts with EPUI and REC					
EPUI	-0.016	-0.007	-0.012	0.005	-0.012	-0.018	-0.012	-0.011	-0.008	-0.005
	(0.019)	(0.016)	(0.021)	(0.025)	(0.020)	(0.032)	(0.019)	(0.020)	(0.017)	(0.024)
REC	0.005	0.050	0.028	0.031	0.034	0.023	0.030	0.043	0.033	0.043
	(0.036)	(0.038)	(0.031)	(0.043)	(0.048)	(0.043)	(0.037)	(0.044)	(0.035)	(0.040)
EPUIxREC	-0.039	-0.043	-0.049	-0.024	-0.018	-0.028	-0.037	-0.053	-0.072*	-0.125**
	(0.048)	(0.045)	(0.035)	(0.049)	(0.052)	(0.054)	(0.033)	(0.049)	(0.039)	(0.048)
Constant	0.013	-0.002	0.015	0.019	0.008	0.016	0.010	0.016	0.007	0.019
	(0.012)	(0.012)	(0.011)	(0.015)	(0.015)	(0.016)	(0.014)	(0.012)	(0.011)	(0.014)
N	120	120	120	120	120	120	120	120	120	120
Adj. R^2	-0.022	0.028	0.002	-0.010	-0.006	-0.015	-0.004	0.009	0.013	0.036

Half yearly ERP

Table C.6 Political uncertainty, economic circumstances and half yearly equity risk premia from 01/01/1997 to 31/12/2006

This table show the impact of political uncertainty and economic circumstances on half yearly equity risk premia across ten different industries between 01/01/1997 and 31/12/2006. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	0.000	0.011	-0.005	-0.006	0.004	-0.026	-0.009	-0.009	0.003	-0.023
	(0.029)	(0.028)	(0.034)	(0.033)	(0.025)	(0.047)	(0.034)	(0.026)	(0.032)	(0.042)
ESI	-0.396	-0.540	-0.437	-0.262	-0.444	-0.271	0.103	-0.175	-0.513	0.236
	(0.426)	(0.354)	(0.406)	(0.375)	(0.305)	(0.498)	(0.473)	(0.369)	(0.414)	(0.672)
EPUIxESI	0.625	0.532	1.585	1.568	0.975	1.791	0.884	0.444	1.578	-0.244
	(1.259)	(1.235)	(1.335)	(1.580)	(1.006)	(1.812)	(1.393)	(1.203)	(1.299)	(1.952)
Constant	0.023	0.032*	0.001	-0.007	0.006	0.012	-0.001	0.023	-0.001	-0.023
	(0.022)	(0.018)	(0.024)	(0.024)	(0.018)	(0.031)	(0.025)	(0.020)	(0.025)	(0.036)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	-0.019	-0.008	-0.011	-0.016	-0.009	-0.017	-0.023	-0.023	-0.010	-0.024
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	0.013	0.015	-0.004	0.009	0.005	-0.014	0.021	0.003	0.006	-0.009
	(0.023)	(0.022)	(0.027)	(0.028)	(0.021)	(0.038)	(0.028)	(0.021)	(0.027)	(0.037)
CLI	0.112	0.001	-0.020	0.137	-0.015	0.059	0.339**	0.095	-0.005	0.135
	(0.136)	(0.114)	(0.132)	(0.133)	(0.101)	(0.164)	(0.148)	(0.114)	(0.130)	(0.186)
EPUIxCLI	-0.150	-0.182	-0.090	-0.069	-0.063	-0.262	0.031	-0.162	-0.090	-0.139
	(0.194)	(0.182)	(0.222)	(0.218)	(0.151)	(0.269)	(0.171)	(0.194)	(0.190)	(0.303)
Constant	0.020	0.030	0.000	-0.009	0.006	0.010	-0.004	0.021	-0.001	-0.025
	(0.022)	(0.018)	(0.024)	(0.024)	(0.018)	(0.030)	(0.024)	(0.019)	(0.025)	(0.035)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	-0.009	-0.019	-0.025	-0.007	-0.025	-0.018	0.090	-0.008	-0.025	-0.015
					Panel C: direct equity risk premia forecasts with EPUI and REC					
EPUI	0.009	0.009	-0.003	-0.002	0.010	-0.021	-0.020	-0.009	0.019	-0.005
	(0.030)	(0.024)	(0.024)	(0.042)	(0.024)	(0.052)	(0.045)	(0.024)	(0.030)	(0.029)
REC	0.075*	0.064*	0.128***	0.085*	0.079**	0.126**	0.047	0.072**	0.125***	0.160**
	(0.042)	(0.034)	(0.040)	(0.043)	(0.031)	(0.053)	(0.048)	(0.036)	(0.041)	(0.064)
EPUIxREC	0.000	-0.022	-0.030	-0.017	-0.009	-0.024	-0.037	-0.018	0.000	0.000
	(0.054)	(0.055)	(0.061)	(0.063)	(0.045)	(0.088)	(0.063)	(0.052)	(0.058)	(0.090)
Constant	0.060**	0.063***	0.064***	0.036	0.045**	0.074**	0.022	0.059***	0.061**	0.056**
	(0.027)	(0.019)	(0.019)	(0.030)	(0.020)	(0.035)	(0.036)	(0.019)	(0.025)	(0.023)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.051	0.053	0.178	0.059	0.109	0.091	0.001	0.069	0.160	0.131

Table C.7 Political uncertainty, economic circumstances and half yearly equity risk premia from 01/01/2007 to 31/12/2016

This table show the impact of political uncertainty and economic circumstances on half yearly equity risk premia across ten different industries between 01/01/2007 and 31/12/2016. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	0.015	-0.001	0.010	0.023	-0.005	0.008	0.003	0.009	0.016	0.018
	(0.035)	(0.033)	(0.028)	(0.038)	(0.043)	(0.032)	(0.025)	(0.037)	(0.033)	(0.043)
ESI	0.427	0.654	0.538	0.324	0.501	0.604	0.892	0.467	0.567	0.738
	(0.545)	(0.626)	(0.485)	(0.776)	(0.782)	(0.717)	(0.580)	(0.734)	(0.568)	(0.612)
EPUIxESI	-3.135*	-2.370	-2.166	-2.723	-3.375	-1.827	-1.421	-3.233*	-2.057	-2.995*
	(1.632)	(1.813)	(1.776)	(1.965)	(2.526)	(1.671)	(1.438)	(1.779)	(1.538)	(1.789)
Constant	0.017	-0.039	0.010	0.015	-0.013	0.013	-0.004	0.002	-0.010	0.010
	(0.024)	(0.026)	(0.022)	(0.029)	(0.033)	(0.029)	(0.025)	(0.027)	(0.024)	(0.028)
N	117	117	117	117	117	117	117	117	117	117
Adj. R^2	0.037	0.019	0.025	0.007	0.017	0.000	0.024	0.026	0.016	0.033
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	0.035	0.029	0.033	0.055*	0.030	0.043*	0.022	0.036	0.039	0.045
	(0.030)	(0.027)	(0.022)	(0.031)	(0.033)	(0.025)	(0.022)	(0.031)	(0.026)	(0.035)
CLI	0.192***	0.265***	0.212***	0.257***	0.292***	0.292***	0.219***	0.252***	0.237***	0.284***
	(0.063)	(0.086)	(0.060)	(0.081)	(0.104)	(0.078)	(0.079)	(0.082)	(0.063)	(0.062)
EPUIxCLI	-0.054	0.026	0.001	0.013	0.013	0.063	-0.004	-0.055	-0.040	-0.051
	(0.151)	(0.176)	(0.126)	(0.199)	(0.221)	(0.155)	(0.126)	(0.180)	(0.143)	(0.140)
Constant	0.023	-0.032	0.016	0.023	-0.005	0.021	0.001	0.009	-0.004	0.018
	(0.021)	(0.021)	(0.018)	(0.025)	(0.028)	(0.024)	(0.022)	(0.023)	(0.019)	(0.023)
N	117	117	117	117	117	117	117	117	117	117
Adj. R^2	0.158	0.266	0.247	0.203	0.218	0.266	0.194	0.214	0.261	.268
					Panel C: direct equity risk premia forecasts with EPUI and REC					
EPUI	-0.001	0.000	0.007	0.024	0.000	0.014	-0.002	-0.003	-0.005	-0.006
	(0.035)	(0.037)	(0.031)	(0.045)	(0.041)	(0.034)	(0.024)	(0.033)	(0.030)	(0.045)
REC	-0.006	0.074	0.041	0.047	0.051	0.040	0.062	0.058	0.045	0.047
	(0.064)	(0.070)	(0.057)	(0.076)	(0.088)	(0.076)	(0.064)	(0.077)	(0.065)	(0.076)
EPUIxREC	-0.054	-0.026	-0.025	-0.026	-0.013	0.007	-0.025	-0.068	-0.080	-0.089
	(0.093)	(0.096)	(0.078)	(0.103)	(0.123)	(0.087)	(0.070)	(0.100)	(0.087)	(0.104)
Constant	0.017	-0.014	0.024	0.032	0.005	0.027	0.016	0.023	0.005	0.026
	(0.021)	(0.020)	(0.020)	(0.026)	(0.029)	(0.027)	(0.024)	(0.019)	(0.019)	(0.022)
N	117	117	117	117	117	117	117	117	117	117
Adj. R^2	-0.022	0.020	-0.005	-0.009	-0.011	-0.015	0.010	0.002	0.000	-0.005

Yearly Equity Risk Premia

Table C.8 Political uncertainty, economic circumstances and yearly equity risk premia from 01/01/1997 to 31/12/2006

This table show the impact of political uncertainty and economic circumstances on yearly equity risk premia across ten different industries between 01/01/1997 and 31/12/2006. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	-0.012	0.000	-0.022	-0.005	-0.014	-0.033	-0.003	-0.019	-0.011	-0.089
	(0.038)	(0.036)	(0.055)	(0.047)	(0.041)	(0.061)	(0.042)	(0.036)	(0.053)	(0.077)
ESI	-0.858	-0.938**	-0.352	-0.447	-0.562	-0.453	-0.428	-0.601	-0.615	0.305
	(0.523)	(0.458)	(0.775)	(0.659)	(0.533)	(0.856)	(0.738)	(0.516)	(0.735)	(1.210)
EPUIxESI	0.088	-0.364	-0.373	-1.345	-0.327	-0.489	0.969	-0.807	-0.013	-0.846
	(1.873)	(1.766)	(1.879)	(1.556)	(1.106)	(2.379)	(2.213)	(1.737)	(1.577)	(3.409)
Constant	0.043	0.057**	-0.010	-0.022	0.001	0.007	0.002	0.044	-0.010	-0.046
	(0.030)	(0.023)	(0.040)	(0.035)	(0.029)	(0.043)	(0.039)	(0.027)	(0.038)	(0.062)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	-0.007	0.010	-0.023	-0.018	-0.016	-0.021	-0.022	-0.010	-0.019	-0.018
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	-0.036	-0.025	-0.037	-0.014	-0.031	-0.043	-0.005	-0.032	-0.033	-0.080
	(0.032)	(0.032)	(0.046)	(0.040)	(0.032)	(0.052)	(0.039)	(0.029)	(0.043)	(0.073)
CLI	-0.301*	-0.297***	-0.202	-0.101	-0.211	-0.196	-0.035	-0.196	-0.270	0.045
	(0.167)	(0.108)	(0.193)	(0.175)	(0.147)	(0.242)	(0.259)	(0.148)	(0.177)	(0.364)
EPUIxCLI	-0.145	-0.066	-0.149	-0.115	-0.087	-0.408	0.047	-0.267	-0.077	-0.364
	(0.204)	(0.167)	(0.266)	(0.249)	(0.183)	(0.341)	(0.249)	(0.217)	(0.221)	(0.515)
Constant	0.045	0.060**	-0.009	-0.022	0.002	0.005	0.003	0.044*	-0.008	-0.050
	(0.029)	(0.023)	(0.040)	(0.035)	(0.028)	(0.041)	(0.039)	(0.026)	(0.037)	(0.062)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.047	0.078	-0.005	-0.019	0.014	-0.002	-0.025	0.022	0.011	-0.016
					Panel C: direct equity risk premia forecasts with EPUI and REC					
EPUI	0.005	-0.013	0.011	0.003	-0.004	-0.002	-0.002	-0.005	0.021	-0.030
	(0.057)	(0.057)	(0.040)	(0.052)	(0.035)	(0.052)	(0.063)	(0.048)	(0.040)	(0.043)
REC	0.146***	0.103**	0.244***	0.152**	0.161***	0.235***	0.140**	0.127***	0.237***	0.265**
	(0.050)	(0.042)	(0.068)	(0.063)	(0.048)	(0.074)	(0.068)	(0.048)	(0.062)	(0.112)
EPUIxREC	0.002	-0.052	0.013	-0.016	-0.018	0.012	-0.035	0.001	0.011	0.067
	(0.076)	(0.076)	(0.102)	(0.096)	(0.072)	(0.119)	(0.079)	(0.075)	(0.093)	(0.155)
Constant	0.116***	0.108***	0.111***	0.053*	0.081***	0.123***	0.071	0.107***	0.107***	0.086***
	(0.039)	(0.029)	(0.021)	(0.031)	(0.027)	(0.031)	(0.049)	(0.028)	(0.027)	(0.024)
N	119	119	119	119	119	119	119	119	119	119
Adj. R^2	0.159	0.116	0.276	0.120	0.225	0.206	0.081	0.150	0.293	0.135

Table C.9 Political uncertainty, economic circumstances and yearly equity risk premia from 01/01/2007 to 31/12/2016

This table show the impact of political uncertainty and economic circumstances on yearly equity risk premia across ten different industries between 01/01/2007 and 31/12/2016. The industries examined are: Oil & Gas, Basic Materials, Industrials, Consumer Goods, Consumer Services, Health Care, Telecommunications, Utilities, Financials and Technology. These industries will be referred to as: OG, BM, IND, CG, CS, HC, Tel, Uti, Fin and Tech, respectively. The Economic Policy Uncertainty Index (EPUI) is used to proxy for political uncertainty. There are three proxies used for economic circumstances: the Economic Sentiment Indicator (ESI), the Composite Leading Indicator (CLI) and a recession dummy (REC). These proxies are used as a measure of economic circumstances in panel A, B and C, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables	OG	BM	Ind	CG	CS	HC	Tel	Uti	Fin	Tech
					Panel A: direct equity risk premia forecasts with EPUI and ESI					
EPUI	-0.009	-0.049	-0.017	-0.032	-0.040	-0.021	-0.030	-0.033	-0.005	-0.021
	(0.060)	(0.061)	(0.055)	(0.065)	(0.074)	(0.063)	(0.048)	(0.062)	(0.056)	(0.070)
ESI	0.107	0.593	0.478	0.279	0.193	0.483	1.315*	0.278	0.403	0.617
	(0.742)	(0.770)	(0.754)	(1.002)	(0.912)	(0.906)	(0.718)	(0.962)	(0.789)	(0.956)
EPUIxESI	-3.768*	-5.173*	-3.795	-3.795	-4.906	-4.053	-2.878	-4.026*	-3.340	-4.974*
	(2.162)	(2.918)	(2.512)	(2.542)	(3.176)	(2.815)	(2.241)	(2.158)	(2.359)	(2.607)
Constant	0.036	-0.077*	0.026	0.042	-0.012	0.037	-0.006	0.003	-0.021	0.018
	(0.039)	(0.041)	(0.038)	(0.047)	(0.051)	(0.045)	(0.036)	(0.041)	(0.038)	(0.046)
N	111	111	111	111	111	111	111	111	111	111
Adj. R^2	0.007	0.039	0.017	-0.001	0.008	0.007	0.046	0.010	0.006	0.023
					Panel B: direct equity risk premia forecasts with EPUI and CLI					
EPUI	0.023	0.000	0.0174	0.013	0.010	0.033	0.015	0.003	0.032	0.017
	(0.049)	(0.044)	(0.041)	(0.050)	(0.060)	(0.044)	(0.032)	(0.048)	(0.042)	(0.056)
CLI	0.171**	0.285***	0.236***	0.281**	0.270**	0.288***	0.324***	0.245**	0.251***	0.306***
	(0.084)	(0.104)	(0.084)	(0.108)	(0.118)	(0.101)	(0.084)	(0.098)	(0.083)	(0.104)
EPUIxCLI	0.004	0.052	-0.014	0.025	0.048	0.150	0.112	-0.026	0.002	-0.097
	(0.185)	(0.200)	(0.185)	(0.247)	(0.255)	(0.221)	(0.178)	(0.225)	(0.178)	(0.226)
Constant	0.041	-0.068*	0.033	0.050	-0.003	0.046	0.003	0.010	-0.015	0.026
	(0.037)	(0.038)	(0.034)	(0.042)	(0.047)	(0.041)	(0.031)	(0.037)	(0.034)	(0.041)
N	111	111	111	111	111	111	111	111	111	111
Adj. R^2	0.043	0.140	0.115	0.106	0.089	0.123	0.247	0.100	0.133	.132
					Panel C: direct equity risk premia forecasts with EPUI and REC					
EPUI	0.016	-0.007	0.018	0.009	0.006	0.040	-0.023	-0.005	0.017	-0.007
	(0.068)	(0.070)	(0.068)	(0.081)	(0.094)	(0.071)	(0.047)	(0.068)	(0.059)	(0.079)
REC	-0.110	0.045	0.000	-0.017	-0.017	0.006	0.032	-0.033	-0.020	-0.044
	(0.083)	(0.096)	(0.082)	(0.101)	(0.105)	(0.102)	(0.086)	(0.100)	(0.090)	(0.113)
EPUIxREC	0.072	0.068	0.073	0.091	0.093	0.146	0.010	0.057	0.044	0.016
	(0.138)	(0.160)	(0.126)	(0.153)	(0.174)	(0.146)	(0.109)	(0.153)	(0.135)	(0.156)
Constant	0.004	-0.059	0.029	0.040	-0.013	0.043	0.006	-0.004	-0.025	0.007
	(0.040)	(0.042)	(0.042)	(0.051)	(0.059)	(0.048)	(0.042)	(0.038)	(0.037)	(0.043)
N	111	111	111	111	111	111	111	111	111	111
Adj. R^2	0.029	-0.015	-0.025	-0.024	-0.025	-0.021	-0.021	-0.022	-0.025	-0.022