When EU leaders speak, the markets listen.¹

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Abstract

We use content analysis software to examine certain characteristics of communications arising from European Council meetings. These characteristics appear to explain a large proportion of variation in stock returns around the meeting dates. More specifically, stock market investors react favorably when the conclusions and declarations issued by heads of states convey a positive sentiment and demonstrate a stance of moral rectitude. On the other hand, the returns tend to be negative when the communications are obfuscated by an excessive use of abstract words and fixated on regional rather than global issues.

JEL Classifications: F50, G12, G14, G15

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I. Introduction

Prior research has sought to measure the impact of political environment on accounting practices (Bushman and Piotroski, 2006) and on price formation in capital markets (see for instance Santa-Clara and Valkanov, 2003; Herbst and Slinkman, 1984). Our work attempts to contribute to the existing literature by adopting an alternative research approach to examining the relationship between the worlds of politics and finance. More specifically, we use content analysis software to quantify the sentiment and other text characteristics of official communications arising from the meetings of the European Council. Similar tools of computational linguistics have already been used to gauge the sentiment impounded in the language of earnings announcements (Demers and Vega, 2010; Davis *et al.*, 2010) and president's letter to the shareholders (Abrahamson and Amir, 1996; Smith and Taffler, 2000). Having constructed our variables that capture the tone and certain traits of these political communications, we proceed to investigate whether they are associated with stock market performance around the meeting dates. We find the answer to be in the affirmative. The European Council summits are clearly important events, as they are attended by EU heads of state or government and play a significant role in outlining future policy directions. Our results highlight the fact that political factors should not be neglected in the asset valuation process.

Some earlier studies have investigated the influence of specific accounting and corporate disclosures on stock price performance, focusing on events such as earnings announcements and future earnings guidance (Hotchkiss and Strickland, 2003; Atiase and Li, 2005), restatement announcements (Palmrose *et al.*, 2004), merger and dividend news (Keown and Pinkerton, 1981; Aharony and Swary, 1980) and departures or deaths of CEOs (Etebari *et al.*, 1987; Dedman and Lin, 2002). Ours is a paper which departs from the convention of examining firm-specific news and instead looks at the impact of political information. Thus

far, only limited attention has been given devoted to the effect of political disclosures on valuation of firms. In order to pursue our analysis, we follow the prior work that has investigated the economic consequences of corporate press releases, however turn our attention to a different type of information and, in doing so, consider politicians to be an integral part of the socio-economic system we inhabit.

The price formation process in capital markets, which is of interest here, has important financial, accounting and managerial ramifications. Nevertheless, the process itself has not yet been fully understood. The ambitious goal of gaining such an understanding has been pursued by academics and market professionals alike and it is apparent that traditionally defined measures of fundamentals explain only a small proportion of variation in stock returns. For instance, Campbell and Ammer (1993) show that only 15% of stock return variance can be attributed to news about future dividends. According to Shiller (1981), the volatility of stock prices is too extreme to be rationalized within the framework of present value models. As a result, scholars have extended their search to a wider spectrum of possible determinants, including that of the sentiment of the investing public and interactions within society (Olson, 2006). One such platform of social interaction is the political arena. Political decision-making could have the capacity to tangibly influence the environment in which issuers and investors operate and consequently affect economic outcomes.

In our study we attempt to gauge the influence that the communiqués issued by the European Council have on stock valuations. We show that the positive sentiment of leaders spills over into markets. When the proportion of positive words in the total word count of meeting documentation is high, stock prices move to reflect this. Investors do not seem to appreciate a situation in which politicians try to hide behind a smokescreen of abstract vocabulary or where they dwell on regional issues. Since the meetings of the European Council are intended to tackle global problems, devoting an inordinate amount of time to local concerns can

detract attention from the main objectives. Furthermore, it appears that declarations reflecting a stance of moral rectitude are welcomed by the markets. What is interesting in the context of the summits of the European leaders considered here is that the ramifications are cross-continental and can also be detected by looking at changes in the global stock market index. Perhaps the most intriguing finding is that characteristics of political communication can explain about 20% or more of the systematic risk around the meeting dates.³

It may be argued that, at least to some extent, the choice of language and the nature of issues being discussed may be interrelated. In our empirical enquiry we endeavor to disentangle the properties of language from the issue of topic selection. More specifically, we create a range of dummy variables that capture the most frequent agenda items and use them as control variables in our regressions. Reassuringly, our content variables created by the text-analysis software retain their statistical significance in these specifications and have incremental explanatory power. It can be thus inferred that the linguistic characteristics of political communications carry important information to the markets and should be monitored closely. We also show that the political sentiment provides predictive power for returns beyond the standard macroeconomic aggregates. Consequently, politicians do not seem to simply reflect on the current macroeconomic situation, but also provide additional valuable clues by the way they express themselves.

The remainder of the paper is organized as follows. The next section reviews the prior literature and, given the multidisciplinary nature of this paper, considers contributions from several fields of science. We examine earlier findings on the interaction between politics and stock markets and also engage in a discussion on the role of political institutions in general

³ Since our study models returns on broadly diversified stock market indices, the variance of these returns consists of pure systematic risk. The R^2 coefficients in our regressions including only the political variables derived from our text analysis were in the region of 0.2, indicating that political changes account for a large fraction of the systematic risk.

and of the European Council in particular. This is followed by a survey of academic studies that have successfully applied the tools of computational linguistics to investigate accounting and finance problems. Section III describes the construction of political sentiment measures, the financial data and control variables used. The basic statistical properties of the variables are also elaborated upon. Section IV presents empirical analysis linking European Council proclamations with stock returns and engages in a reflection on whether the uncovered relationships are economically significant. Section V includes a battery of robustness checks. The paper ends with some concluding remarks and reflections.

II. Literature Review

2.1 Political Developments and Asset Pricing

Several previous studies have inquired into the nature of the relationship between stock returns and political developments. In the spirit of the partisan theory proposed by Hibbs (1977), a question has been raised as to whether the political orientation of an executive can be linked to asset valuations. The evidence presented in Santa-Clara and Valkanov (2003) attests to the fact that US stock market returns tended to be higher during Democratic than Republican presidencies and that the gap in annualized excess returns between the two was 9% for a value-weighted and 16% for an equal-weighted portfolio. These differences could not be simply explained away by the variation in investment risks under different administrations. In a related paper, Hensel and Ziemba (1995) consider profitable investment strategies in which portfolio rebalancing depends on the party affiliation of the president. Caution however is advised when implementing such strategies, as the results obtained for

the US market are not directly generalizable in the global context (Cahan *et al.*, 2005; Bohl and Gottschalk, 2006; Bialkowski *et al.*, 2007).

A second strand of the literature examined how the alleged opportunistic behavior of policy-makers can impact on capital markets prior to national elections. Nordhaus (1975) pointed out that, in order to maximize their chances of re-election, incumbents have an incentive to manipulate policy instruments. They could be tempted to create short-lived economic expansions in order to impress the electorate and leave the implementation of unpopular anti-inflationary measures for later - after the public vote has taken place. Both Herbst and Slinkman (1984) and Booth and Booth (2003) found a manifestation of these “political business cycles” in the distribution of stock returns. Bialkowski *et al.* (2008) also noted that since elections are often accompanied by a change in the political environment, the country-specific component of stock market volatility tends to increase during vote-casting periods. As a result of this heightened political risk, companies around the world reduce investment expenditures during election years (Julio and Yook, 2012).

International conflicts are another important type of political event attracting the attention of scholars. Frey and Kucher (2000) examined how the key events of World War II influenced the evolution of bond prices, while Chowdhry (2010) conducted a similar analysis for a US stock market index. Financial variables and oil prices were also shown to respond significantly to the more recent war in Iraq (Leigh *et al.*, 2003; Rigobon and Sack, 2005). Furthermore, in their comprehensive study, Berkman and Jacobsen (2006) explored a large database of international political crises and demonstrated that outbreaks of conflicts destroy the value of common equity and are associated with increased stock market volatility. Instances of war, they argued, decrease the world stock returns by about four percent per annum.

Lastly, previous research has also documented that political risk estimates published in *International Country Risk Guide* have explanatory power for stock returns around the globe. Diamonte *et al.* (1996) showed that political risk upgrades and downgrades produce economically significant changes in stock valuations. This result was particularly strong for emerging markets, where the valuation changes proved to be more notable in size. Bilson *et al.* (2002) used the same political dataset, however their methodological approach controlled for a range of global and local influences. Reassuringly, they confirm the earlier findings of Diamonte *et al.* (1996) and argue that investors are compensated for taking on political risk.

Our study looks at the interaction between politics and markets from a somewhat different angle. More specifically, we intend to verify whether the words of national leaders speak as loudly as their actions. To this end, we analyze communiqués arising from European Council meetings, which are attended by European national leaders. Not much research has been done on the relationship between the tone of political communications and financial markets to date. We operationalize our analysis by using content analysis software that is well-suited to the task at hand.

2.2 The Broader Role of Political Institutions and the European Council

Well-functioning political institutions are essential to foster an atmosphere conducive to new investments and to create an environment in which capital markets will flourish. The results presented in Perotti and van Oijen (2001) corroborate the claim that political risk is an important barrier to stock market development, as measured by the growth in market capitalization over GNP and the growth in trading activity. The importance of political risk resolution and institutional quality is also highlighted in Yartey (2008), who argued that these factors are key driving forces behind stock market development in emerging economies. In a

related piece of research, Rajan and Zingales (2003) alluded to the fact that, depending on their self-serving objectives, industry leaders and financiers may exercise their political influences to either accelerate or slow down the financial development of a country.

Political economy and institutions also appear to affect the behavior of corporate executives and financial reporting practices. Bushman and Piotroski (2006) argued that managers try to identify the motives of politicians and adjust the accounting numbers to counter any politically-based interference. In countries where the government tends to intervene in inefficient companies in order to improve their performance, managers will try to project an image of success by swiftly recognizing good news and delaying the reporting of bad news. On the other hand, in countries with high expropriation risk, managers will resort to more conservative reporting to decrease the probability of forced nationalization of profitable companies. The general conclusion that arises from the aforementioned studies is that politics exerts a substantial influence on financial markets, as well as on other aspects of economic and social life.

The focal point of our inquiry is the political environment within Europe, particularly the activities undertaken by the European Council. The European Economic Union was established in 1957 with the Treaty of Rome and derives from the common cultural background that characterizes Europe (Winter, 1947). It was the building block of a common market of goods, workers, services and capital within member states. Envisioned within the treaty was the creation of common transport and agricultural policies and a European social fund. The European Council was established later in 1974 with the original purpose of creating an informal round-table for debate between heads of state or government that were members of the European Economic Union. Progressively, it has developed into the body that is in charge of setting targets for the Union and identifying the path to achieve them in any area of EU activity. It obtained formal status in the 1992 Treaty of Maastricht and became

one of the seven institutions of the Union with the promulgation of the Treaty of Lisbon on December 1, 2009 (European Council, 2009).

According to the Treaty of Maastricht, the European Council is expected to give impetus and general political guidelines in order to stimulate the Union's development (European Council, 2009). Thus, the European Council is the political institution of the European Union that defines its general political direction and priorities, but it does not exercise legislative functions. Currently, the European Council consists of the heads of state or government of the Member States, together with its President and the President of the Commission. Nevertheless, the conventions regarding composition are quite flexible. When the agenda to be discussed in the meeting covers specific topics, the members of the European Council may decide to be supported by a minister competent in the area discussed. Similarly, the President of the Commission may be assisted by a member of the Commission. The European Council meets regularly and, when economic or political situations so necessitate, the President may call a special meeting. It is important to point out that, in general, the decisions of the European Council are taken by accord. In some cases, decisions by unanimity or by a qualified majority may be adopted.

The European Council has been evolving in recent years, emerging as a very successful centre for decisions in the field of economic governance (Moravcsik, 1993) and fulfilling a crucial role as a forum for policy debate (Hodson and Maher, 2001; Puetter, 2012). This reflects increased high-level intergovernmental policy co-ordination. Since historically member state governments have resisted further transfer of formal competences to the EU, they progressively compensated for this lack of power transfer through intensified intergovernmental coordination, with the European Council playing a core role (Puetter, 2012). The intergovernmental meetings create a negotiation environment that is particularly

favorable to conducting close policy dialogue among the Euro area's key decision-makers (Puetter, 2004).

Given the critical role that the European Council plays in shaping European policy, one would expect stock market investors to pay close attention to the information disclosed by this institution. As a result, the information would become impounded in stock prices. Whether this is indeed an accurate portrayal of reality is the subject of our empirical inquiry that follows.

2.3 Applications of Content Analysis in Accounting and Finance Literature

In order to quantify the various characteristics of European Council communications, we use computer-assisted text analysis software General Inquirer that scans documents word-by-word. The content analysis performed by the software relies on computing keyword frequencies, for keywords that fall into pre-defined tag categories. Each of the categories is based on a wordlist designed to capture a certain semantic dimension. It needs to be noted at this stage that content analysis has already been successfully applied in several earlier studies in the field of accounting and finance to examine the impact of qualitative information contained in news stories and corporate disclosures. Since we find these papers particularly instructive for our own analysis, we review them in this section.

One of the studies conducted in this subject area by Francis *et al.* (2002) documents that the absolute abnormal returns were sensitive to the number of good and bad comments made by officers in earnings announcement press releases. Davis *et al.* (2012) argue that net optimism contained in the language of earnings announcements predicts future ROA and market response around the announcement date. Demers and Vega (2010) reach similar conclusions and additionally note that more wavering language is associated with higher levels of idiosyncratic volatility. Several papers have also examined the properties of the president's

letter to shareholders. The characteristics of these seem to be predictive of firms' future stock market performance (McConnell *et al.*, 1986; Swales, 1998), accounting measures (Abrahamson and Amir, 1996) and potential bankruptcy (Smith and Taffler, 2000).

Henry (2006, 2008) develops new tone thesauruses comprising negative and positive words used in the context of financial disclosure. By being domain-specific, rather than general, these wordlists partially circumvent the problem of polysemy (Henry and Leone, 2009). The evidence indicates that the tone measures based on Henry's corpora perform well in explaining market reaction to earnings press releases (Henry and Leone, 2009). We use Henry's thesauruses in this paper to verify the robustness of our baseline results. However, it needs to be noted that the analysis of textual documents can also go beyond simple sentiment measures and examine other linguistic features. Li (2008) measures the readability of annual reports using the Gunning fog index, which is increasing in the length of sentences and the number of words with three or more syllables. He finds that firms try to obfuscate bad earnings news by increasing the linguistic complexity of annual reports. We agree with the spirit of Li's analysis and, in addition to the positiveness, we examine other dimensions of European Council communications.

Computational linguistics also helped to shed more light on other incentives faced by corporate managers when disseminating information. Ahern and Sosyura (forthcoming) show that bidders tend to manipulate the tone and frequency of their news announcements during fixed exchange merger negotiations in order to lower takeover costs. Davis and Tama-Sweet (2012) argue that managers have the propensity to report strategically and publish pessimistic narratives in outlets with the lowest impact. Such an approach could diminish market reaction to bad news. Furthermore, it appears that the personal traits of managers and executives can be inferred from the language they use. Dikolli *et al.* (2013) measure the number of causation words in the letter to shareholders and claim that usage of such words intensifies when CEOs

are making excuses. Their study documents that this linguistic measure is inversely related to employees' perception of CEO integrity. Low-integrity CEOs were shown to hold less stockholdings and diminish accruals quality.

Researchers have also tried to evaluate whether media sentiment has the capacity to move stock prices. By utilizing General Inquirer software, Tetlock (2007) and Tetlock *et al.* (2008) find that pessimistic media reportage forecasts low earnings, and influences trading volume and returns. It is however questionable whether media-based trading strategies could generate enough profit to cover transaction costs arising from the requisite high-frequency trading.⁴ Not only has computerized content analysis been used in the field of finance, but it has also been employed in the context of political science to assess the rhetorical styles and affect of political communications (see for instance Forsythe, 2004; Hart and Childers, 2004; Hart and Lind, 2010; Davis and Gardner, 2012; Young and Soroka, 2012). However, to the best of our knowledge, the existing literature has largely overlooked the question of how the sentiment and other characteristics of communications issued by political leaders influence stock market valuations. Our study attempts to fill this void.

III. Variable Description and Data Sources

The primary source of textual data used in this study is the online archive of the European Council.⁵ This resource catalogues conclusions, statements and communications of the European Council dating back to 1993. Driven by data availability considerations, we focus on all documents that are a direct outcome of the 75 meetings held between June 1993 and January 2012. For the sake of completeness, we merge all documents produced by each of the

⁴ Bhattacharya *et al.* (2009) and Wisniewski and Lambe (2013) are other examples of finance papers that applied a variant of content analysis.

⁵ This archive can be accessed on <http://www.european-council.europa.eu/council-meetings/conclusions>

summits into meeting-specific text files. These files are subsequently analyzed using the quantitative content analysis program General Inquirer. This pioneering software was developed in the 1960s (Stone *et al.*, 1966) and has since been reprogrammed and extended. According to Pennebaker *et al.* (2003) it has greatly contributed to the creation of the field of computerized text analysis.

General Inquirer is capable of exploring English language texts and its word stock as well as its word categorization are based on the “Harvard-IV-4” and “Lasswell” dictionaries. By running disambiguation routines, the software infers the sense of homographs (words with many meanings) from the context in which they appear. Once the meaning has been identified, the computer program assigns each of the words into a broader category/categories. General Inquirer has been used previously in several of the papers cited in section 2.3 to assess the impact of certain media news and corporate disclosures on a range of financial variables. It has also been employed outside the field of accounting and finance, for instance, in psychology research (Harrigan *et al.*, 1991), in analyzing international relations (Siverson, 1973) and in examining the attributes of communications contained in different catechisms (Dengler, 1974).

By design, General Inquirer computes the number of occurrences of the words from a predetermined category in the text. These numbers are subsequently scaled by the document’s total word count in order to standardize the data and make it directly comparable across different European Council meetings. The four measures of language employed in our empirical inquiry are equivalent to the frequencies generated by the program. Table I lists the quantitative gauges alongside their general definition and examples from each word grouping.

[Insert Table I about here]

In general terms, political communications can be quite complex to interpret since, in their pursuit of re-election, politicians could window dress the information to improve their image (Andina-Díaz, 2009). This aspect is particularly relevant since voters are found to selectively attempt to increase their perceived similarity with their preferred political leaders by means of projection, suggesting a strong link between politicians and the electorate (Castelli *et al.*, 2009). On the other hand, policy makers are requested to respond to the democratic needs of full disclosure. While their personal interest might sometimes overwhelm the democratic interest of clear and unbiased information disclosure, the empirical evidence suggests that democratic systems have some in-built self-correcting mechanism that safeguards the quality of the information disseminated (Gaber, 2007). As a result, the communications of politicians may provide indications of their intentions and their strategies to tackle the issues they face (Ohnuma *et al.*, 2007).

Over and above the role of the information *per se*, one needs to consider what sentiment the information is likely to generate in the audience. The direct implication is that professional politicians are typically very careful in their selection of words. Because of this argument, it is important to look for clusters of words that may induce a specific effect in the audience. We focus on positive and abstract words, as well as on words that are related to moral rectitude and to particular regions.

The first variable, *Positive*, represents a cluster of words that are a proxy for the general mood associated with the meeting. As per our previous argument about the role of information disclosure and the sentiment attached to words, we presume that the emotional state of the policy-makers is not immaterial, as it may affect their decisions and exhibit contagious qualities. To put it differently, the sentiment of the investment community may be influenced by political declarations. Such an explanation would be consistent with the “risk-as-feelings” model propounded by Loewenstein *et al.* (2001) which portrays the decision-

making process as a product of cognitive evaluations and emotional reactions. In the same spirit, Nofsinger (2005) and Shu (2010) argued that social mood is of great consequence for financial markets and that it can drive the changes in prices of common equity. One would expect high values of *Positive* to be associated with strong stock market performance.

The second quantitative measure of language labeled *Abstract* is based on terms that are not concrete and that are therefore more difficult to visualize. According to the dual coding theory propounded by Paivio (1971), abstract words are not directly associated with visual images and this makes them more difficult to process, assimilate and recognize. As a result, overusing abstract terms may not be conducive to clear communication. However, there may be deeper underlying reasons why this linguistic style is employed; reasons that may be clear to the participants of the summit, but not necessarily readily apparent to the general public. Perhaps such a situation could be symptomatic of an impasse or deadlock in negotiations. Taking into account the aforementioned considerations, we would anticipate a negative relationship between the frequency of abstract word use and stock market reaction.

The remaining two categories are relatively specific and contain a smaller word stock. *Rectitude* primarily captures expressions of moral conviction, forgiveness or words that are characteristic of condemnation of the objectionable. Moral rectitude denotes individuals' commitment to a certain set of ethical maxims. These maxims were historically developed in Europe and Northern America during the Enlightenment of the 17th and 18th centuries, although they are rooted in Greek (Aristotle, 2009) and Christian Middle Age (Aquinas, 2009) philosophy. In fact, human beings strive to maximize their overall social benefit that also includes the economic one (Smith, 1976). In order to maximize social benefit, they also have to behave ethically and thus they commit themselves to ethical maxims (Kant, 2000). More recently, Barney (1990) made it clear that the assumption that human decision makers are inherently prone to behaving opportunistically is problematic and highlights the

importance of ethical and trusting behavior in human relationships. Moreover, the literature on social capital shows that norms of reciprocity and mutual trust are the cornerstones of a functioning economy, as they are prerequisites for collective action (Grootaert and van Bastelaer, 2002; Krishna, 2002). Finally, Granovetter (1985) criticizes the “undersocialized conception of human behavior” (p. 483) in the governance approaches of New Institutional Economics and stresses the fact that in their behavior individuals are strongly influenced by social context (Bragues, 2009).

Even if, as suggested by some research in accounting, one cannot rule out that the commitment to ethical rule can follow a strategy where the (apparent) ethical behavior can simply depend on a strategic analysis of cost/benefits of the actors (Schrand and Walther, 2000), both theoretical (King, 1996) and empirical evidence suggests the importance of true commitment to ethical maxims (Duh et al., 2010; Schwarz, 2006) in management and in politics alike. For managers, this strategy constitutes a successful entrepreneurial action (Carson et al., 2006; Eberl, 2004; Lavie, 2006), since when the leadership behavior is perceived as trustworthy through the observer’s mediating lens, trust increases and leaders are more likely to be viewed as ethical stewards who honor a higher level of duties (Caldwell et al., 2010). Thus, it is not unexpected that forgiveness and trust are critical values of today’s organization leaders who are committed to maximizing the value of organizations (Caldwell and Dixon, 2010) and that the perception of being treated in an equitable way positively affects the behavior of employees (Chun-Hsi and Indartono, 2011), as well as that of lenders (Moro and Fink, 2013). In politics, Halim (2008) stresses the importance of rectitude in politicians, which is supported by electoral accountability since coherent adherence to values and principles is a key component of the evaluation made by voters and thus affects the chances of being re-elected. Moreover, judicial efficacy is a key ingredient in efficient monitoring of bureaucrats in order to reduce corruption (Halim, 2008). In fact, the beliefs of

individuals regarding human nature are related in complex and sometimes contradictory ways to their political orientation (Wald and Lupfer, 1987). All in all, by drawing on the life-world concept (Schütz and Luckmann, 1973) and the categorical imperative (Kant, 2000), it becomes apparent that maxims rooted in humanity are crucial for the functioning of modern societies. Thus, we anticipate *a priori* that adherence to moral values on the part of heads of states and government would be a trait appreciated by the marketplace since it implies that leaders will be more committed to implement a decision without trying to deviate from it or introduce any modifications.

Last but not least, the variable *Region* captures the frequency of referring to specific localities. *Region* is likely to record high values when politicians lobby for the interests of particular geographical areas and whenever specific local problems dominate the summit agenda. Since the European Council is essentially entrusted with shaping pan-European strategy, the focus is expected to be on problems that are global in nature. Assuming that this is the case, we expect a negative nexus between *Region* and stock market returns. In what follows, we argue that the four variables described in Table I are viewed as meaningful by investors.

In addition to analyzing the communiqués using computer software, we also read through these documents to carefully examine the common themes running through them. We create eight dummy variables for the most commonly discussed topics, namely competitiveness, employment, productivity, EU enlargement, justice, immigration, EU budget regulations and war & peace issues. These dummies are used in our regressions in order to disentangle the effect of the topic selection from the impact of the rhetorical style. We would however not expect *a priori* that the selection of themes will influence returns around the meeting dates, as the agenda items are often publicized far in advance of the summit. Even if the agenda was

not preannounced, one would probably be able to anticipate the themes by analyzing the statements made by politicians or by following current affairs.

Our study also employs other control variables. More specifically, we use macroeconomic aggregates measuring industrial production growth, change in unemployment and CPI inflation recorded in a month in which a particular European Council meeting took place. These three indicators have been selected, as they are available with monthly sampling frequency for the entire period under consideration. This empirical setup means that the controls capture the most recent macroeconomic developments, something that would have not been possible had we utilized annual data. The business cycle in Europe is proxied by Euro Zone aggregates and the aggregates for OECD are assumed to be representative of the world. The data for our control variables has been sourced from the Statistical Data Warehouse of the European Central Bank and the OECD (Main Economic Indicators, Key Short-Term Economic Indicators). We also control for the abnormal trading volume in stock markets within the relevant event windows, as liquidity has been shown by prior studies to be an important determinant of returns (see for instance Amihud (2002)). The exact definitions of our proxies can be found in the Appendix AI to this paper. By introducing the aforementioned controls, we are able to examine whether politicians are able to provide new information to the markets beyond a straightforward elaboration on the current macroeconomic and market conditions.

To measure the reaction of stock markets to European Council meetings we primarily employ two indices, namely MSCI Europe and MSCI World. Both of these are free float-adjusted market capitalization weighted and have been designed to measure the performance of developed markets in Europe and in the world, respectively.⁶ These financial series have

⁶ MSCI Europe and MSCI World indices used in this study aggregate constituent market values denominated in local currencies. Consequently, these indices record only pure stock market fluctuations without accounting

been sourced from Datastream. The index returns calculated in this paper are expressed using continuous compounding. We refer to the day on which the summit has ended as Day 0. In cases when the end coincided with a weekend, the first trading day after the meeting is assumed to be Day 0. Since most of the past meetings were two days in length, we start to measure the impact on stock markets from Day -1. The conclusions of the meeting are not always disclosed immediately, as they need to be translated into several languages which sometimes implies delays in the dissemination process. Also, politicians, media professionals and political pundits are likely to comment on the outcomes for several days. To take these facts into account we also examine market movements in the days immediately following the summit. With the purpose of demonstrating the robustness of our results we consider two variations of the dependent variables – total index returns during the (-1,5) period and the (-1,10) period equivalent.

[Insert Table II about here]

Summary statistics for all empirical measures used in the study are reported in Table II. The behavior of the European and World stock market indices is similar in comparable time frames. The average returns, however, do not depart considerably from zero, as it is the announced outcomes of the meeting rather than the meeting *per se* that determines the market reaction. It can be also seen that the averages of particular content variables are clearly dependent upon the word stock used to create each of the categories. As the *Positive* and *Abstract* groupings are relatively broad, the words included in these categories account for a significant proportion of the text. The standard deviations of our content measures are generally low, indicating that the language of diplomacy is not particularly volatile. Among the themes discussed in the meetings, employment as well as war and peace issues were the

for the foreign exchange movements. However, we note that the use of MSCI Europe and MSCI World indices for which the aggregation has been conducted in US dollars does not change the conclusions presented here.

most frequent. Our sample period includes a deep recession, which dwarfed the growth and increased the unemployment rates. Finally, we do not observe any huge surges in stock market volume around the European Council meetings. Large volumes are generated when investors disagree about the nature of the information (Hong and Stein, 2007). It may well be argued that the communiqués of European Council could actually remove some disagreement among investors by clarifying the future policy directions and by eliminating some of the uncertainties. A more detailed analysis of our abnormal volume measure is included in an Internet supplement to this paper.

[Insert Table III about here]

Table III shows a correlation matrix for our main variables. The correlation coefficients between the content variables and raw returns are signed consistently with our *a priori* predictions and most of them are statistically significant. We would nevertheless advise caution when evaluating the relationship between a single text characteristic and stock market returns. When perusing a communiqué, the vast majority of readers are able to assess several dimensions of a text in a single read. They subsequently form a general opinion about the communication, which is an aggregation of multiple factors. We believe that it is the generalized judgment that will drive their investment decision-making. Therefore, compared to a simple correlation analysis, a multiple regression framework would be better suited to investigate the issue in hand.

A further question that comes to mind when looking at Table III is whether the association between the content measures is strong enough to cause a multicollinearity problem in a regression framework. Whenever different explanatory variables in a regression are collinear, parameter standard errors are inflated. To verify if the correlation between regressors is indeed a cause for concern the authors used variance inflation tests. According to Chatterjee

and Price (1991) Variance Inflation Factors (VIFs) in excess of 10 may be an indication of estimation problems. Since none of the VIFs in the regressions that follow exceeds a value of 2.15, we conclude that multicollinearity is not present and that all of our text-based measures can be bundled into a single regression specification.

IV. Empirical Results

4.1. Event Studies

Since the European Council meetings essentially constitute a series of events with clearly defined dates, the use of an event study approach is appropriate in this context. As the focus of the analysis is on indices rather than individual stocks, a constant-mean-return model for abnormal returns is more suitable than the market model equivalent (for a distinction between the two models, see Campbell, Lo and MacKinley (1997)). For each event, the mean return is calculated in a 200 trading day estimation window and is subsequently deducted from the returns in the event window to create abnormal returns. The implication of this mathematical operation is that this modeling framework controls for recent trends in the market. The abnormal returns are then averaged across all events and summed over time to create cumulative abnormal returns (CARs).

CARs are computed for three different groups of events that are classified as good, bad and neutral news. The classification procedure takes into account all of the content variables. Whenever at least three out of the four considered communication content characteristics score favorably, the summit is classified as good news. The meaning of the word ‘favorable’ in this context is defined as above-median values for the *Positive* and *Rectitude* variables and

values of *Abstract* and *Region* variables that are equal to or below the median. A bad news event is defined as a summit that produces statements scoring unfavorably on at least three of the textual criteria. Neutral news meetings are those for which the number of favorable and unfavorable content characteristics is equal. The plots of CARs for all of the groups are depicted in Figure I. The results for the MSCI Europe index are shown in Panel A, while those for MSCI World appear in Panel B.

[Insert Figure I about here]

By examining the behavior of CARs in the event window, one can clearly observe that the communicated attitude of policymakers influences stock valuations. There appears to be a monotonic relationship between the desirability of text characteristics and the magnitude of abnormal market reaction. The difference between $CAR(-1,10)$ for good and bad news events is $2.6\% - (-1.3\%) = 3.9\%$ for the European stock market index and $2.1\% - (-1.3\%) = 3.4\%$ for the global one.⁷ These differences are statistically significant with the corresponding *t*-statistics of 2.59 and 2.87, respectively. The graphs also indicate that most of the price adjustment occurs after the conclusion of the meetings, as information is being released and gradually analyzed and absorbed by market participants. The persistence of the effect on stock prices may indicate that the European Council's communications convey some new material information to the market. After all, if the price movements detected were induced by noise traders who speculate on irrelevant news, smart money would be expected to arbitrage these movements out in a swiftly manner.

Given the statistical significance of the results, a further reflection on the economic importance of the results is needed. According to the World Federation of Exchanges (2010),

⁷ The equivalent differences for $CAR(-1,1)$, $CAR(-1,3)$ and $CAR(-1,5)$ are 1.6%, 2.5% and 3.3%, respectively, for the European stock market index and 1.1%, 2.2% and 3% for the world index.

the total market capitalization of the 52 leading stock exchanges in the world was almost US\$ 55 trillion. Consequently, the reported world stock returns around the event date would translate into a substantial monetary figure. These findings highlight the value that political proclamations represent to stock market investors. To put it differently, those in position of power should choose their words carefully and wisely in order to avoid unnecessarily large swings in asset valuations.⁸

Another intriguing question that could be posed at this stage is whether profitable trading strategies could be designed using textual data. At first glance, Figure I may hint at potential profits possibly exceeding transaction costs, particularly in the futures market. Reilly and Brown (2006: 833) report that in the case of stock index futures the sum of commissions and market impact typically does not exceed 15 basis points. However, it needs to be noted that there are important practical difficulties in implementing any potential strategy. While the agenda for European Council meetings may sometimes be publicized in advance, the outcome of such meetings may be difficult to predict. To realize the profits implied in this section, one would need to correctly guess the sentiment behind future political announcements. This could be particularly difficult from the perspective of an individual investor. Political leaders may have informational advantage in this respect, but their trading activities are usually subject to greater scrutiny.

4.2. Regression Analysis

⁸ One may argue that the language of the communications will be, at least to a certain extent, a function of the agenda items discussed. However, we find that in cases where the provisional/draft agenda was pre-announced, the pre-announcement occurred significantly in advance of the meeting. Near-efficient capital markets would be expected to discount such information immediately. Should there be any price effect related to the selection of agenda items, it would most likely transpire prior to our (-1,5) and (-1,10) event windows.

Table IV sheds more light on the relationship between raw stock market returns around the summit dates and the content of European Council communications. Panel A of the table reports the results for MSCI Europe index, while the regressions in Panel B model the returns on MSCI World. Two periods for computing total returns are considered for each of the panels. In general, the goodness of fit measures for the models are relatively high. The R-square exceeds 20% in all but one of the regressions including only the content variables, indicating that political risk accounts for a substantial proportion of stock index return variance when the heads of state meet. This is testament to the fact that political dialogue at this level goes well beyond a simple exchange of platitudes and that it has a visible impact on the markets. In all of the cases, the *F*-statistics are statistically significant, reconfirming the importance of the observed phenomenon.

[Insert Table IV about here]

All of the regression specifications show that returns are an increasing function of the *Positive* variable and that this effect is statistically significant. One possible rationalization of this relationship involves the mechanism of mood contagion (for a literature review on the contagious quality of emotions see Hatfield *et al.* (1994)). In an experimental setting, Sy *et al.* (2005) demonstrated that the emotional expressions of leaders are transferred onto the followers. It is possible that the affect caught by investors may be an important determinant of their financial decisions (Loewenstein *et al.*, 2001). Leaders themselves may also not be indifferent to the emotional states they experience. Finally, we cannot completely rule out the possibility that political statements include information that has not been previously disclosed to the markets.

The results also indicate that stock markets exhibit a more favorable response when the European Council's communications contain concrete rather than abstract words. This is

unsurprising considering the conclusions of earlier medical research which documented that people can recognize concrete words more quickly and remember them better (Paivio, 1971; Cox, 1978). Most likely this is because the interaction with concrete concepts involves mental imagery and engages both hemispheres of the brain. In contrast, activation induced by abstract words is restricted primarily to the left hemisphere (Paivio, 1986; Binder *et al.*, 2005). These factors have ramifications for communicating clearly and efficiently. When political leaders resort to using overly abstract rhetoric, more skeptical market observers may suspect that there are hidden motives for adopting such a linguistic strategy.

At this stage we feel duty-bound to point out that abstractness is not necessarily synonymous with complexity. In fact, we have measured the complexity of the text documents included in our sample using the Gunning fog index, which increases in the length of sentences and words used. The correlation between *Abstract* and the fog index in our sample is merely 0.21, demonstrating that these two gauges indeed capture different characteristics of text. To investigate the issue further, we replaced the *Abstract* variable in our regressions with the fog index. The results (untabulated) show that the coefficients on the fog index are always negative, however this variable has much lower predictive power compared to *Abstract*. While investors may have a slight preference for shorter words and sentences, they clearly do not initiate any major portfolio rebalancing actions based on the readability of European Council communications. Perhaps they have grown accustomed to the convoluted writing style inherent in political statements. Most of the documents analyzed in our study had a very high fog index, suggesting that they have been drafted for a highly literate and educated audience. The complexity of language can be viewed in this context as a tradition, rather than a bad omen. Stock market participants, however, seem to strongly object to abstract vocabulary. Abstract wording may be interpreted as purposefully vague and symptomatic of a situation where the negotiations did not yield any tangible outcomes.

Curiously, *Rectitude* appears to be one of the most powerful predictors of stock market returns, as it remains highly statistically significant in different specifications of the regression model. This means that the moral dimension of international policy-making is not irrelevant to observers of the political scene. Since the declarations and conclusions of the meetings are in essence joint statements, high values of *Rectitude* are likely to be recorded whenever leaders coalesce around a single definition of what constitutes a behavior conducive to well-functioning international cooperation and what behavior can be deemed morally reprehensible. Such consensus adds clarity to cross-border relationships and appears to have economic value.

Finally, the stock returns tend to be, *ceteris paribus*, lower whenever European Council meetings focus excessively on issues related to particular regions. Perhaps such discussions could be viewed as lobbying for specific national interests at the expense of the international community. Such conduct could potentially lead to a range of distortions and an inefficient allocation of resources. Alternatively, references to places may arise in the context of discussing specific problems that are particular to a certain geographical area. Overall, it is clear that according to investors' preferences regional issues should be dealt with on a regional level, rather than on a global forum.

Unlike the content variables, the theme dummies do not provide much explanatory power. As anticipated, all of them are statistically insignificant and their inclusion in the regressions actually decreases the adjusted R-squared. Since the agenda items are often preannounced in advance and can to a large extent be predicted, this finding is not particularly astonishing. It appears that investors pay much closer attention to what is being concluded, as opposed to what is being discussed. This is why the characteristics and language of the concluding statements are much more informative with regard to stock market valuations.

Regarding macroeconomic controls, growth in industrial production seems to stimulate increases in stock indices, which is not entirely surprising considering the findings of earlier research (see for instance Chen *et al.*, 1986 and Nasseh and Strauss, 2000). Furthermore, returns respond positively to accelerating consumer prices, as companies are in possession of real assets which appreciate nominally in an inflationary environment. The investors also seem to demand higher nominal returns to hold stocks during inflationary periods. Although unemployment represents underutilization of resources, Boyd *et al.* (2005) argue that bad labor market news may be actually favorable to stock markets. This is because rising unemployment diminishes the level of expected interest rates. Consequently, it is difficult to anticipate the sign of the differenced unemployment coefficient based on theoretical considerations. We find that the unemployment growth is signed negatively in most regressions, albeit this finding is statistically insignificant. Similarly, no statistical significance has been found for our abnormal trading volume proxies.

[Insert Table V about here]

We repeat the regression analysis discussed above for specifications that take the cumulative abnormal return to be the relevant dependent variable. Results are shown in Table V. Two important findings become immediately apparent. First, our conclusions regarding the impact of political statements on stock prices are robust to the change in the definition of market fluctuations. Second, macroeconomic indicators are no longer statistically significant predictors in the regressions. Since the calculation of abnormal returns involves deducting an average return from the pre-event window, abnormal returns should be unaffected by any stock market trends, even those caused by persistent macroeconomic conditions. This can perhaps explain the failure of macroeconomic factors to contribute considerably to the goodness of fit.

An analysis of partial R^2 statistics computed for the regressions shown in Table IV (see Internet supplement) revealed several interesting insights. Even though the variable *Positive* is consistently statistically significant, it is not the regressor with the greatest explanatory power. Other content variables are often superior predictors in many of the specifications. This leads us to conclude that the readership of European Council communications is rather sophisticated and able to evaluate many dimensions of the text. In future research, therefore, authors should avoid restricting their analysis to merely positive/negative sentiment and also endeavor to evaluate more subtle nuances of the statements. Unsurprisingly, the theme dummies account only for a relatively small fraction of the variation in the dependent variable. Additionally, the cumulative explanatory power of macroeconomic factors and abnormal volume is smaller than that attributed to our content variables. Even though political communications may be only one of a multitude of factors that codetermine the evolution of stock price movements, they appear to be an important factor nonetheless.

[Insert Table VI about here]

Finally, we focus on the behavior of the main national stock market indices in Europe, namely FTSE 100, DAX 30, CAC 40 and IBEX 35. More specifically, we calculate the continuously compounded returns on these indices denominated in US dollar terms in (-1,10) windows and regress them against the textual measures (see Table VI). Empirical results that emerge from this approach are very similar to those obtained from the baseline specification employing MSCI World and MSCI Europe. One can thus infer that the impact of European Council statements is quite substantial, as it is detectable regardless of the conventions adopted to create stock market indices and it is unlikely to be masked by a country-specific component of systematic risk. The model presented in the last column of Table VI aggregates the data from these four EU countries with the largest stock markets into one two-way fixed

effect panel incorporating both year and country dummies. It can be clearly seen that our results become more pronounced in this modeling framework. In fact, the absolute values of t -statistics for all of our content variables exceed 5. We mention in passing that the results for a standard fixed effect panel without the year dummies are equally strong.

V. *Robustness Checks*

The sentiment measures derived from a content analysis could be sensitive to the choice of dictionary used. To check the robustness of our results to alternative corpora, we consider a list of 1,045 positive words from an earlier edition of General Inquirer. This is a smaller word stock compared to the latest edition of General Inquirer, which had 1,915 words falling into this tag category. This old list defined a new variable measuring the proportion of words with positive outlook. We have also created keyword counts for our sentiment measures based on the tone thesauruses presented in Henry (2008). More specifically, for each meeting conclusion document we calculate the following indicator $Positive_Tone = Positivity/(Positivity+Negativity)$. We take *Positivity* to denote the total frequency count of words catalogued on the “Positivity word list” in Henry (2008, p. 387), while *Negativity* records the keyword count for keywords appearing on the “Negativity word list” in the same source. The method of scaling this variable is similar to the scaling of Net Tone Scores presented in Henry and Leone (2009). Regardless of which wordlist or variable we use to capture the positive sentiment, the main conclusions arising from our regression analysis remain unaltered.

We have also constructed empirical measures to capture net tone defined as the difference between the fraction of positive and negative words in the analyzed text according to both the latest General Inquirer and Henry (2008) thesauruses. We found that net optimism, just like

positivity, is a statistically significant predictor of stock market returns around the European Council's meeting dates. Furthermore, we have examined the explanatory power of negative/pessimistic words and we would like to summarize our main findings here. The various negativity variables based on Henry (2008) wordlists we constructed showed a reasonably strong negative association with returns and had statistically significant explanatory power in our regressions. This statistical significance, however, was attenuated when we switched to the General Inquirer list of words. Since Henry's wordlists have been specifically created to be suitable for accounting and finance applications, their superior performance in measuring sentiment may not be particularly surprising in our stock market study. Secondly, political leaders seem to purposefully avoid the use of negative vocabulary when referring to the meetings in which they participated. The average frequency of positive words in the sample documents is 6.2 times higher than that of the negative words according to the General Inquirer count. We therefore believe that the sentiment inherent in the text is better measured by the varying shades of optimism. As a result, it may not be an optimal strategy for investors to base their decision-making solely on negativity measures while completely disregarding information on the intensity of positive tone.

We also reflect on whether there may be any events systematically coinciding with European Council meeting dates, which could obfuscate our analysis. We first concentrate on national elections and collect election data for the 27 EU member states.⁹ We only focus on those vote-casting events that determine who holds executive power. More specifically, we concentrated on parliamentary elections in countries with a parliamentary system of government and on presidential elections in nations with a presidential system. For each of the countries, we start recording elections from the date marking the beginning of our sample or the date of joining EU, whichever came later. We obtain the information on election dates

⁹ The 28th member state (Croatia) joined EU in July 2013, which is after the end of our sample period.

from several sources, such as Lane *et al.* (1997), Caramani (2000), Banks *et al.* (2004) and the Election Guide database. Having constructed our dataset, we proceeded to check whether the dates on which voters cast their ballots coincided with meetings of the European Council. Intuitively, this should not happen frequently, as such timetabling clashes may prevent some leaders from attending the summit. We have however discovered that the first round of parliamentary elections in the Czech Republic held on November 5th, 2004 coincided exactly with the conclusion of the Brussels European Council. A dummy variable has been created to capture this event. We also looked at cases where the election date was not exactly equivalent to Day 0 in our event study analysis, but where the timing nevertheless fell within the (-1,10) event window. Six events were consistent with our search and another dummy variable was created for them. Inclusion of the election dummies into the regressions does not affect the predictive power of the remaining explanatory variables. We can consequently conclude that national elections should not be viewed as an important confounding factor in the context of our analysis.

One could also endeavor to examine whether other events, such as earnings seasons or legislative changes, are overlapping with the summits. When considering the issue of earnings seasons in the European Union, one needs to bear in mind that the Union itself is an amalgamation of 28 countries. Each of these countries may have their own reporting conventions and there seems to be a lack of cross-border homogeneity in terms of the definitions of the fiscal and accounting years. For instance, companies domiciled in the UK face a fiscal year for tax purposes ending in March. However, the law permits companies operating there to adopt any year as their accounting year and therefore the earnings announcements occur unintermittedly. The issue becomes even more convoluted when we examine the number of earnings releases in different months on Bloomberg for other countries. For instance, the months with most earnings releases in Germany are May, August

and November, while the number of releases in France typically peaks in March, April and September. Information about the financial performance of EU companies seems to be disclosed almost continuously, although the geographical origin of the information and its intensity may vary over time. We therefore believe that there is no reason to suspect that European Council meetings would be systematically affected by “earnings seasons”. Similarly, despite efforts to converge and harmonize, each of the EU member states has a distinct set of regulations and a parliament that alters these regulations on an almost daily basis. However, since our analysis is conducted on a European and global level, we believe that the country-specific regulatory risk will be diffused in the internationally diversified portfolios of MSCI Europe and MSCI World.

Finally, we need to mention that the sample used in our paper is based on meeting conclusions. The European Council does occasionally issue statements that are not a direct outcome of a meeting. Going through the web page of the European Council we have identified four declarations for which disclosure dates do not overlap with the timing of meetings. These declarations are not necessarily a result of involved and prolonged multilateral negotiations and may, to a large extent, be perceived as truisms. They include obvious statements, such as reaffirmation of commitment to the euro or condemnation of terrorism. Putting the issue of informational value aside, we decided to perform a robustness check to see whether inclusion of these four observations into our sample will change the conclusions of our paper. Our regression analysis indicated that this is not the case.

VI. Conclusions

The findings presented in this paper have wide-ranging implications for the process of drafting communications of the European Council. First of all, politicians need to be aware

that the sentiments contained in their messages could be contagious in nature. Their emotional state can be transferred to the general population and create events in a manner similar to a self-fulfilling prophecy. Secondly, markets favor situations in which the discussion is concrete rather than abstract and in which heads of states agree on common moral principles. Thirdly, we conclude that discussions about regional issues should be relegated to a regional level and the focus of the summits should be on topics of global importance.

When the data is looked at from the point of view of investors and asset pricing theory several interesting insights emerge. It seems that market participants scrutinize political declarations and to a large extent base their trading decisions on them. As a consequence, the political messages issued by the European Council find their way into the prices of stocks and appear to have global impact. The gap between favorable and unfavorable communications expressed in terms of cumulative abnormal returns over a 12-day event window is 3.9% for the European index and 3.4% for the World one. Moreover, a large proportion of variation in these indices around summit dates seems to be explained by the different characteristics of political announcements.

Analysis of the economic impact of joint statements revealed that the magnitude of the returns induced by the varying communication content is likely to exceed typical transaction costs, particularly in the futures markets. Trading strategies based on political statements, however, cannot be easily designed in reality, as it may be difficult for individual investors to predict the conclusions of the meetings upfront. Heads of states may be better positioned in that respect, as they have access to private information produced by advisers, and the diplomatic and secret services. They are however often constrained by regulation and social norms in their trading. Regardless of the practical difficulties related to the profitable

exploitation of political information, it becomes clear that such information affects stock market valuations.

Future research should embrace the notion of political risk as an important contributor to systematic risk. It may also be instructive to examine another question, which is beyond the scope of the current paper, namely ‘how is political information disseminated in the printed and electronic media?’. Such an inquiry may allow better tracing of the path of sentiment transmission from politicians to the markets and improve our understanding of the underlying process.

References

- Abrahamson, E. and Amir, E. (1996) ‘The information content of the presidents letter to shareholders’, *Journal of Business Finance & Accounting*, 23(8), pp. 1157-1182.
- Aharony, J. and Swary, I. (1980) ‘Quarterly dividend and earnings announcements and stockholders’ returns: An empirical analysis’, *Journal of Finance*, 35(1), pp. 1-12.
- Ahern, K.R. and Sosyura, D. (forthcoming) ‘Who writes the news? Corporate press releases during merger negotiations’, *Journal of Finance*.
- Amihud, Y. (2002) ‘Illiquidity and stock returns: cross-section and time-series effects’, *Journal of Financial Markets*, 5(1), 31-56.
- Andina-Díaz, A. (2009) ‘Media competition and information disclosure’. *Social Choice Welfare*, 33(2), pp. 261–280.
- Aquinas, T. (2009) *Summa Teologica*. (Charleston, SC: BiblioLife LLC).
- Aristotle (2009) *The Nicomachean Ethics*. (Oxford: Oxford University Press).
- Atiase, R.K., Li, H., Supattarakul, S. and Tse, S. (2005) ‘Market reaction to multiple contemporaneous earnings signals: Earnings announcements and future earnings guidance’, *Review of Accounting Studies*, 10(4), pp. 497-525.
- Banks, A.S., Muller, T.C. and Overstreet, W.R. (Eds.), (2004) *Political handbook of the world 2000–2002*. Washington, DC: CQ Press.
- Barney, J.B. (1990) ‘The debate between traditional management theory and organizational economics: Substantive differences or intergroup conflict?’ *Academy of Management Review*, 15(3), pp. 382-393.

- Berkman, H. and Jacobsen, B. (2006) 'War, peace and stock markets', SSRN working paper, available on <http://ssrn.com/abstract=828645>, last accessed, 2nd May 2012.
- Bhattacharya, U., Galpin, N., Ray, R. and Yu, X. (2009) 'The role of the media in the Internet IPO bubble', *Journal of Financial and Quantitative Analysis*, 44(3), pp. 657–682.
- Bialkowski, J., Gottschalk, K. and Wisniewski, T. P. (2007) 'Political orientation of government and stock market returns', *Applied Financial Economics Letters*, 3(4), pp. 269-273.
- Bialkowski, J., Gottschalk, K. and Wisniewski, T. P. (2008) 'Stock market volatility around national elections', *Journal of Banking and Finance*, 32(9), pp. 1941-1953.
- Bilson, C. M., Brailsford, T. J. and Hooper, V. C. (2002) 'The explanatory power of political risk in emerging markets', *International Review of Financial Analysis*, 11(1), pp. 1-27.
- Binder, J. R., Westbury, C. F., McKieran, K. A., Possing, E. T. and Medler, D. A. (2005) 'Distinct brain systems for processing concrete and abstract concepts', *Journal of Cognitive Neuroscience*, 17(6), pp. 905-917.
- Bohl, M. T. and Gottschalk, K. (2006) 'International evidence on the Democrat premium and the presidential cycle effect', *North American Journal of Economics and Finance*, 17(2), pp. 107-120.
- Booth, J. R. and Booth, L. C. (2003) 'Is presidential cycle in security returns merely a reflection of business conditions?', *Review of Financial Economics*, 12(2), pp. 131–59.
- Boyd, J.H., Hu, J. and Jagannathan, R. (2005) 'The stock market's reaction to unemployment news: Why bad news is usually good for stocks?', *Journal of Finance*, 60(2), pp. 649-672.
- Bragues, G. (2009) 'Adam Smith's vision of the ethical manager', *Journal of Business Ethics*, 90(4), pp. 447-460.
- Bushman, R. M. and Piotroski, J. D. (2006) 'Financial reporting incentives for conservative accounting: The influence of legal and political institutions', *Journal of Accounting and Economics*, 42(1-2), pp. 107-148.
- Cahan, J., Malone, C. B., Powell, J. G. and Choti, U. W. (2005) 'Stock market political cycles in a small, two-party democracy', *Applied Economics Letters*, 12(12), pp. 735–40.
- Campbell, J. Y. and Ammer, J. (1993) 'What moves the stock and bond markets? A variance decomposition for long-term asset returns', *Journal of Finance*, 48(1), pp. 3–37.
- Campbell, J. Y., Lo, A.W. and MacKinlay, A. C. (1997) *The econometrics of financial markets*. (Princeton: Princeton University Press).
- Caramani, D. (2000) *The societies of Europe: Elections in Western Europe since 1815 – Electoral results by constituencies*. (Basingstoke, UK: Palgrave Macmillan).
- Carson, S.J., Madhok, A. and Wu, T. (2006) 'Uncertainty, opportunism, and governance: The effects of volatility and ambiguity on formal and relational contracting.' *Academy of Management Journal*, 49(5), pp. 1058-1077.

- Castelli, L., Arcuri, L. and Carraro, L. (2009). 'Projection processes in the perception of political leaders.' *Basic and Applied Social Psychology*, 31(3), pp. 189-196.
- Chatterjee, S. and Price, B. (1991). *Regression diagnostics*. (New York: John Wiley).
- Caldwell, C. and Dixon, R.D. (2010) 'Love, forgiveness, and trust: Critical values of the modern leader. *Journal of Business Ethics*', 93(1), pp. 91–101.
- Caldwell, C., Hayes, L.A. and Long, D.T. (2010) 'Leadership, trustworthiness, and ethical stewardship'. *Journal of Business Ethics*, 96(4), pp. 497–512.
- Chen, N.F., Roll, R. and Ross, S.A. (1986) 'Economic forces and the stock market, *Journal of Business*, 59(3), pp. 383-403.
- Choudhry, T. (2010) World War II events and the Dow Jones industrial index, *Journal of Banking and Finance*, 34(5), pp. 1022-1031.
- Chun-Hsi, C. and Indartono, S. (2011) Study of commitment antecedents: The dynamic point of view. *Journal of Business Ethics*, 103(4), pp. 529–541.
- Cox, W. F. (1978) 'Problem solving as a function of abstract or concrete words', *Contemporary Educational Psychology*, 3(1), pp. 95-101.
- Davis, A.K., Piger, J.M. and Sedor, L.M. (2012) 'Beyond the numbers: Measuring the information content of earnings press release language', *Contemporary Accounting Research*, 29(3), pp. 845-868.
- Davis, A.K. and Tama-Sweet, I. (2012) 'Managers' use of language across alternative disclosure outlets: Earnings press releases versus MD&A', *Contemporary Accounting Research*, 29(3), pp. 804-837.
- Davis, K.M. and Gardner, W.L. (2012) 'Charisma under crisis revisited: Presidential leadership, perceived leader effectiveness, and contextual influences', *Leadership Quarterly*, 23(5), pp. 918-933.
- Dedman, E. and Lin, S.W.-J. (2002) 'Shareholder wealth effects of CEO departures: Evidence from the UK', *Journal of Corporate Finance*, 8(1), pp. 81-104.
- Dengler, R. (1974) 'A General Inquirer analysis of sixteenth century and contemporary catechisms', *Computers and the Humanities*, 8(1), pp. 5-19.
- Demers, E. and Vega, C. (2010) 'Soft Information in earnings announcements: News or noise?', *INSEAD Faculty & Research Working Paper 2010/33/AC*.
- Diamonte, R.L., Liew, J.M. and Stevens, R.L. (1996) 'Political risk in emerging and developed markets', *Financial Analysts Journal*, 52(3), May-June, pp. 71-76.
- Dikolli, S.S., Mayew, W.J. and Steffen, T.D. (2013) 'Honoring one's word: CEO integrity and accruals quality', *SSRN Working Paper*, downloadable: <http://ssrn.com/abstract=2131476>.

Duh, M., Belak, J. and Milfelner, B. (2010) 'Core values, culture and ethical climate as constitutional elements of ethical behaviour: Exploring differences between family and non-family enterprises', *Journal of Business Ethics*, 97(3), pp. 473-489.

Eberl, P. (2004) 'The development of trust and implications for organizational design: A game- and attribution-theoretical framework', *Schmalenbach Business Review*, 56, July, pp. 258-273.

Etebari, A., Horrigan, J.O. and Landwehr, J.L. (1987) To be or not to be – Reaction of stock returns to sudden deaths of corporate Chief Executive Officers, *Journal of Business Finance and Accounting*, 14(2), 255-278.

European Council (2009) Rules of Procedure of the European Council. In: E. Council (ed.). Brussel: Official Journal of the European Union.

Forthsythe, A.M. (2004) 'Mapping the political language of the 1998 Good Friday Agreement', *Current Psychology*, 23(3), pp. 215-224.

Francis, J., Schipper, K. and Vincent, L. (2002) 'Disclosures and the increased usefulness of earnings announcements', *Accounting Review*, 77(3), pp. 515-546.

Frey, B. S. and Kucher, M. (2000) 'History as reflected in capital markets: The case of World War II', *Journal of Economic History*, 60(2), pp. 468-496.

Gaber, I. (2007). 'Too much of a good thing: the 'problem' of political communications in a mass media democracy', *Journal of Public Affairs*, 7(3), pp. 219-234.

Granovetter, M. (1985) 'Economic action and social structure: The problem of embeddedness', *American Journal of Sociology*, 91(3), pp. 481-510.

Grootaert, C. and van Bastelaer, T. (2002). Social capital: From definition to measurement, in: Grootaert, C. and van Bastelaer, T. (Eds.), *Understanding and measuring social capital*, pp. 1–16 (Washington, DC: The World Bank).

Halim, N. (2008) 'Testing alternative theories of bureaucratic corruption in less developed countries', *Social Sciences Quarterly*, 89(1), pp. 236-257.

Harrigan, J. A., Lucic, K. S. and Rosental, R. (1991) 'Retelling anxious events: Effects on trait and state anxiety', *Personality and Individual Differences*, 12(4), pp. 917-927.

Hart, R.P. and Childers, J.P. (2004) 'Verbal certainty in American politics: An overview and extension', *Presidential Studies Quarterly*, 34(3), pp. 516-535.

Hart, R.P. and Lind, C.J. (2010) 'Words and their ways in campaign '08', *American Behavioral Scientist*, 54(4), pp. 355-381.

Hatfield, E., Cacioppo, J. T. and Rapson, R. L. (1994) *Emotional contagion*. (New York: Cambridge University Press).

Henry, E. (2006) 'Market reaction to verbal components of earnings press releases: Event study using a predictive algorithm', *Journal of Emerging Technologies in Accounting*, 3, pp. 1-19.

- Henry, E. (2008) 'Are investors influenced by how earnings press releases are written?', *Journal of Business Communication*, 45(4), pp. 363-407.
- Henry, E. and Leone, A.J. (2009) 'Measuring qualitative information in capital markets research', *SSRN Working Paper*, downloadable: <http://ssrn.com/abstract=1470807>.
- Hensel, C. R. and Ziemba, W. T. (1995) 'United States investment returns during Democratic and Republican administrations, 1928–1993', *Financial Analysts Journal*, 51(2), March–April, pp. 61–9.
- Herbst, A. F. and Slinkman, C. W. (1984) 'Political–economic cycles in the US stock market', *Financial Analysts Journal*, 40(2), March–April, pp. 38–44.
- Hibbs Jr, D. A. (1977) 'Political parties and macroeconomic policy', *American Political Science Review*, 71(4), pp. 1467–87.
- Hodson, D. and Maher, I. (2001) 'The open method as a new mode of governance: The case of soft economic policy co-ordination', *Journal of Common Market Studies*, 39(4), pp. 719–746.
- Hong, H. and Stein, J.C. (2007) 'Disagreement and the stock market', *Journal of Economic Perspectives*, 21(2), pp. 109-128.
- Hotchkiss, E.S. and Strickland, D. (2003) 'Does shareholder composition matter? Evidence from the market reaction to corporate earnings announcements', *Journal of Finance*, 58(4), pp. 1469-1498.
- Julio, B. and Yook, Y. (2012) Political uncertainty and corporate investment cycles, *Journal of Finance*, 67(1), pp. 45-83.
- Kant, E. (2000) *Kritik der praktischen Vernunft*, Taschenbuch ed. (Frankfurt am Mein: Suhrkamp Verlag).
- Keown, A.J. and Pinkerton, J.M. (1981) 'Merger announcements and insider trading activity: An Empirical investigation', *Journal of Finance*, 36(4), pp. 855-869.
- King, R.P. (1996) 'Reputation formation and reliable reporting: An experimental investigation', *The Accounting Review*, 71(3), pp. 375-396.
- Krishna, A. (2002) *Active social capital: Tracing the roots of development and democracy*. (New York: Columbia University Press).
- Lane, J.-E., McKay, D.H. and Newton, K. (1997) *Political data handbook: OECD countries*, 2nd ed. (New York: Oxford University Press).
- Lavie, D. (2006) 'The competitive advantage of interconnected firms: An extension of the resource-based view'. *Academy of Management Review*, 31(3), pp. 638-658.
- Leigh, A., Wolfers, J. and Zitzewitz, E. (2003) 'What do financial markets think of the war in Iraq?', NEBR Working Paper No. 9587.
- Li, F. (2008) 'Annual report readability, current earnings, and earnings persistence', *Journal of Accounting and Economics*, 45, No. 2-3, pp. 221-247.

- Loewenstein, G., Weber, E.U., Hsee, C.K. and Welch, N. (2001) 'Risk as feelings', *Psychological Bulletin*, 127(2), pp. 267–86.
- McConnell, D., Haslem, J.A. and Gibson, V.R. (1986) 'The president's letter to shareholders: A new look', *Financial Analysts Journal*, 42(5), Sep-Oct, pp. 66-70.
- Moravcsik, A. (1993) 'Preferences and power in the European Community: A liberal intergovernmentalist approach', *Journal of Common Market Studies*, 31(4), pp. 473–524.
- Moro, A. and Fink, M. (2013) 'Loan manager trust and credit access for SMEs', *Journal of Banking & Finance*, 37(3), pp. 927-936.
- Nasseh, A. and Strauss, J. (2000) 'Stock prices and domestic and international macroeconomic activity: a cointegration approach', *Quarterly Review of Economics and Finance*, 40(2), pp. 229-245.
- Nofsinger, J. R. (2005) 'Social mood and financial economics', *Journal of Behavioral Finance*, 6(3), pp. 144-60.
- Nordhaus, W.D. (1975) 'The political business cycle', *Review of Economic Studies*, 42(2), pp. 169–90.
- Ohnuma, S., Ishibashi, Y., Suzuki, Y. and Chikamoto, K. (2007) 'Do self-sanctioning and outsider intervention instill trust in the information disclosure process?', *Journal of Risk Research*, 10(6), pp. 883–898.
- Olson, K. R. (2006) 'A literature review of social mood', *Journal of Behavioral Finance*, 7(4), pp. 193-203.
- Paivio, A. (1971) *Imagery and verbal process*. (New York: Holt: Rinehart & Winston).
- Paivio, A. (1986) *Mental representations: A dual-coding approach*, (New York: Oxford University Press).
- Palmrose, Z.-V., Richardson, V.J. and Scholz, S. (2004) Determinants of market reactions to restatement announcements, *Journal of Accounting and Economics*, 37(1), pp. 59-89.
- Pennebaker, J. W., Mehl, A. R. and Niederhoffer, K. G. (2003) 'Psychological aspects of natural language use: Our words, our selves', *Annual Review of Psychology*, 54, pp. 547-577.
- Perotti, E. C. and van Oijen, P. (2001) 'Privatization, political risk and stock market development in emerging economies', *Journal of International Money and Finance*, 20(1), pp. 43-69.
- Puetter, U. (2004) 'Governing informally: The role of the Eurogroup in EMU and the stability and growth pact', *Journal of European Public Policy*, 11(5), pp. 854–870.
- Puetter, U. (2012) 'Europe's deliberative intergovernmentalism: The role of the Council and European Council in EU economic governance', *Journal of European Public Policy*, 19(2), pp. 161–178.

Rajan, R. G. and Zingales, L. (2003). 'The great reversals: The politics of financial development in the twentieth century', *Journal of Financial Economics*, 69(1), pp. 5-50.

Reilly, F.K. and Brown, K.C. (2006). *Investment Analysis and Portfolio Management*, 8th Edition. (Manson, OH : Thomson South-Western).

Rigobon, R. and Sack, B. (2005) 'The effects of war risk on US financial markets', *Journal of Banking and Finance*, 29(7), pp. 1769-1789.

Santa-Clara, P. and Valkanov, R. (2003) 'The presidential puzzle: political cycles and the stock market', *Journal of Finance*, 58(5), pp. 1841-72.

Schrand, C.M. and Walther, B.R. (2000) 'Strategic benchmarking in earnings announcements: The selective disclosure of prior period components', *The Accounting Review*, 75(2), pp. 151-177.

Schütz, A. and Luckmann, T. (1973) *The structures of the life-world*. (Evanston, IL: Northwestern University Press).

Schwarz, M. (2006) *Der Begriff der Maxime bei Kant. Eine Untersuchung des Maximsbegriffs in Kants praktischer Philosophie*, in: Vossenkuhl, W. (Ed.), *Philosophie im Kontext*. (Berlin : LIT Verlag).

Shiller, R. J. (1981) 'Do stock prices move too much to be justified by subsequent changes in dividends?', *American Economic Review*, 76(3), pp. 483-98.

Shu, H.C. (2010) 'Investor mood and financial markets', *Journal of Economic Behavior and Organization*, 76(2), pp. 267-82.

Siverson, R. M. (1973) 'Role and perception in international crisis: The cases of Israeli and Egyptian decision makers', *International Organization*, 27(3), pp. 329-345.

Smith, A. (1976) *The wealth of nations*. (Chicago: Chicago University Press).

Smith, M. and Taffler, R.J. (2000) 'The chairman's statement: A content analysis of discretionary narrative disclosures', *Accounting, Auditing & Accountability Journal*, 13(5), pp. 624-646.

Stone, P. J., Dunphy, D. C., Smith, M. S. and Ogilvie, D. M. (1966) *The General Inquirer: A Computer Approach to Content Analysis*. (Cambridge, MA: MIT Press).

Swales, G.S. Jr. (1988) 'Another look at the president's letter to stockholders', *Financial Analysts Journal*, 44(2), Mar. – Apr., pp. 71-73.

Sy, T., Côté, S. and Saavedra, R. (2005) 'The contagious leader: Impact of the leader's mood on the mood of group members, group affective tone, and group processes', *Journal of Applied Psychology*, 90(2), pp. 295-305.

Tetlock, P. C. (2007) 'Giving content to investor sentiment: The role of media in the stock market', *Journal of Finance*, 62(3), pp. 1139-68.

Tetlock, P. C., Saar-Tsechansky, M., Macskassy, S. (2008) 'More than words: quantifying language to measure firms' fundamentals', *Journal of Finance*, 63(3), pp. 1437-67.

Wald, K.D. and Lupfer, M.B. (1987) '"Human nature" in mass political thought: What people think about people and what people think about politics', *Social Science Quarterly*, 68(1), pp. 19-33.

Winter, W. L. (1947) 'The cultural integration of Europe', *Social Forces*, 26(1), pp. 26-29.

Wisniewski, T.P. and Lambe, B. (2013) 'The role of media in the credit crunch: The case of the banking sector', *Journal of Economic Behavior and Organization*, 85, pp. 163-175.

World Federation of Exchanges (2010) 'Domestic market capitalization', Available at: <http://www.world-exchanges.org/statistics/annual/2010/equity-markets/domestic-market-capitalization>, Last accessed: 19th June 2012.

Yartey, C. A. (2008) 'The determinants of stock market development in emerging economies: Is South Africa different?', *IMF Working Paper*, WP/08/32.

Young, L. And Soroka, S. (2012) 'Affective news: The automated coding of sentiment in political texts', *Political Communication*, 29(2), pp. 205-231.

Figure I

Event Study Analysis

Depicted in this figure are the cumulative abnormal returns (CARs) around European Council meetings computed using two stock market indices, namely MSCI Europe and MSCI World. CARs are measured on a vertical axis, while the horizontal axis records time. Day 0 corresponds to the date on which the meeting ended. A good news is defined as a summit that produces statements scoring favorably on at least three of the content variables considered. A favorable score is defined here as above-median values for *Positive* and *Rectitude* and values that are below or equal to the median for *Abstract* and *Region*. A bad news is a meeting that produced at least three unfavorable values of the content variables. A neutral news is a meeting for which the number of content variables scoring favorably and unfavorably is equal.

Table I
Definitions of Content Variables

Variable	Definition	Examples of Words
<i>Positive</i>	Proportion of positive words in the communications arising from the European Council meetings. The calculations assume that there are 1,915 different words of positive outlook.	Abundance, Acceptance, Accolade, Accomplishment, Achievement, Admirable
<i>Abstract</i>	Proportion of words in the communications that can be classified as abstract vocabulary. There are 276 words in this category.	Combination, Complexity, Criteria, Destiny, Dilemma, Doctrine
<i>Rectitude</i>	Proportion of words in the communications that are representative of rectitude gain. The number of words falling into this group is 30.	Condone, Forgive, Pardon, Reparation, Restitution, Trust
<i>Region</i>	Proportion of words in the communications that refer to places, locations and regions. This category comprises 61 words.	City, Country, County, Local, Municipality, Territory

Table II
Summary Statistics

This table reports summary statistics for the variables examined in the study. The first four measures in the table represent continuously compounded returns on MSCI Europe and MSCI World indices. These returns have been cumulated over two different periods, namely (-1,5) and (-1,10), where Day 0 corresponds to the end date of a European Council meeting. *Positive*, *Abstract*, *Rectitude* and *Region* represent the content variables constructed from the text of European Council communications. For exact definitions of these see Table I. Variables *Competitiveness* through *War_&_Peace* are dummy variables capturing different themes included in the meetings conclusions. Finally, the macroeconomic and volume indicators are described in detail in Appendix AI.

		Mean	Standard Deviation	25 th Percentile	Median	75 th Percentile
Returns	<i>Return_Europe(-1,5)</i>	-0.0454%	3.0384%	-1.7774%	0.2492%	1.7859%
	<i>Return_Europe(-1,10)</i>	0.6444%	4.1094%	-0.6930%	1.2763%	2.5700%
	<i>Return_World(-1,5)</i>	-0.0789%	2.7325%	-1.2703%	0.2289%	1.4979%
	<i>Return_World(-1,10)</i>	0.5258%	3.6653%	-0.7505%	0.6861%	2.9466%
Content Variables	<i>Positive</i>	11.0697%	1.1356%	10.3483%	11.1494%	12.0185%
	<i>Abstract</i>	4.3034%	0.5411%	3.9891%	4.2482%	4.6852%
	<i>Rectitude</i>	0.0437%	0.0567%	0.0202%	0.0332%	0.0502%
	<i>Region</i>	0.8630%	0.2454%	0.6832%	0.8585%	0.9978%
Themes	<i>Competitiveness</i>	16.0000%	36.9075%	0.0000	0.0000	0.0000
	<i>Employment</i>	37.3333%	48.6947%	0.0000	0.0000	1.0000
	<i>Productivity</i>	16.0000%	36.9075%	0.0000	0.0000	0.0000
	<i>EU_Enlargement</i>	28.0000%	45.2022%	0.0000	0.0000	1.0000
	<i>Justice</i>	25.3333%	43.7849%	0.0000	0.0000	1.0000
	<i>Immigration</i>	20.0000%	40.2694%	0.0000	0.0000	0.0000

Controls	<i>EU_Budget</i>	21.3333%	41.2420%	0.0000	0.0000	0.0000
	<i>War_&_Peace</i>	41.3333%	49.5748%	0.0000	0.0000	1.0000
	<i>IP_Growth_Europe</i>	-0.0329%	1.0640%	-0.4043%	0.0516%	0.6775%
	<i>IP_Growth_World</i>	-0.0117%	0.8603%	-0.1672%	0.0731%	0.4823%
	<i>ΔInflation_Europe</i>	0.0080%	0.2798%	-0.1000%	0.0000%	0.2000%
	<i>ΔInflation_World</i>	-0.0175%	0.3240%	-0.1455%	-0.0254%	0.1403%
	<i>ΔUnemployment_Europe</i>	0.0187%	0.1049%	-0.0500%	0.0000%	0.1000%
	<i>ΔUnemployment_World</i>	0.0108%	0.0829%	-0.0389%	0.0032%	0.0396%
	<i>AbVol_Europe(-1,5)</i>	3.6036%	17.4556%	-6.8350%	0.5089%	11.8336%
	<i>AbVol_Europe(-1,10)</i>	-1.2073%	15.8752%	-12.0841%	-4.0626%	8.7015%
	<i>AbVol_World(-1,5)</i>	2.6963%	14.6029%	-6.9724%	0.3180%	8.8341%
	<i>AbVol_World(-1,10)</i>	-2.1128%	13.7751%	-12.4889%	-4.5936%	5.6798%

Table III

Pearson's Correlation Coefficients between the Key Variables Used in the Study

This table presents a correlation matrix for the variables critical to our empirical investigation. The definitions of the content variables (*Positive*, *Abstract*, *Rectitude* and *Region*) can be found in Table I. *Return_Europe* and *Return_World* measure continuously compounded returns on MSCI Europe and MSCI World indices. These are cumulative returns calculated in (-1,5) and (-1,10) event windows, where Day 0 denotes the conclusion of the European Council meeting. ***, **, * denote statistical significance at 1%, 5% and 10% level, respectively.

	<i>Return_Europe</i> (-1,5)	<i>Return_Europe</i> (-1,10)	<i>Return_World</i> (-1,5)	<i>Return_World</i> (-1,10)	<i>Positive</i>	<i>Abstract</i>	<i>Rectitude</i>
<i>Return_Europe</i> (-1,10)	0.7628***						
<i>Return_World</i> (-1,5)	0.9479***	0.7567***					
<i>Return_World</i> (-1,10)	0.7096***	0.9596***	0.7654***				
<i>Positive</i>	0.2045*	0.2189*	0.2376**	0.2130*			
<i>Abstract</i>	-0.0293	-0.2214*	-0.0199	-0.1705	0.4221***		
<i>Rectitude</i>	0.2529**	0.1453	0.2702**	0.1795	0.0508	0.3023***	
<i>Region</i>	-0.1418	-0.2364**	-0.1475	-0.2300**	0.0552	0.1657	0.2220*

Table IV

Determinants of Raw Returns

This table presents estimation results for regressions linking stock market returns around European Council meetings to the content of communications arising from these meetings and additional controls. Two different indices and time periods are used to compute the total returns. Definitions of content variables are provided in Table I. Variables from *Competitiveness* through to *War_&_Peace* are dummies indicating different themes described in the meeting conclusions. The macroeconomic indicators and abnormal volume proxies are defined in Appendix AI and are measured in the month when a given meeting took place. Standard errors of parameter estimates are given in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% level, respectively.

Panel A. Determinants of MSCI Europe Index Returns							
Explanatory Variable		Dependent Variable					
		<i>Return_Europe</i> (-1,5)	<i>Return_Europe</i> (-1,10)	<i>Return_Europe</i> (-1,5)	<i>Return_Europe</i> (-1,10)	<i>Return_Europe</i> (-1,5)	<i>Return_Europe</i> (-1,10)
Content Variables	<i>Intercept</i>	-0.0197 (0.0362)	0.0147 (0.0458)	-0.0157 (0.0357)	0.0053 (0.0448)	-0.0339 (0.0397)	-0.0065 (0.0504)
	<i>Positive</i>	0.7842** (0.3201)	1.4459*** (0.4051)	0.5931* (0.3221)	1.2538*** (0.4057)	0.7983** (0.3555)	1.4050*** (0.4513)
	<i>Abstract</i>	-1.2692* (0.7070)	-3.2808*** (0.8948)	-0.7097 (0.7097)	-2.4448*** (0.8894)	-0.9591 (0.7826)	-2.6296*** (0.9777)
	<i>Rectitude</i>	18.7728*** (6.1987)	22.6452*** (7.8454)	15.4836** (6.0890)	16.9332** (7.5911)	16.6305** (6.5451)	18.1374** (8.2539)
	<i>Region</i>	-2.4553* (1.3793)	-4.2915** (1.7457)	-2.9183** (1.3268)	-4.6377*** (1.6661)	-2.8200* (1.5355)	-5.0734** (1.9234)
Themes	<i>Competitiveness</i>					0.0001 (0.0121)	0.0126 (0.0152)
	<i>Employment</i>					0.0059 (0.0076)	0.0055 (0.0095)
	<i>Productivity</i>					0.0004 (0.0126)	-0.0052 (0.0156)
	<i>EU_Enlargement</i>					-0.0070 (0.0085)	-0.0106 (0.0105)

Controls	<i>Justice</i>				-0.0053 (0.0097)	-0.0042 (0.0123)
	<i>Immigration</i>				0.0088 (0.0089)	0.0087 (0.0109)
	<i>EU_Budget</i>				0.0116 (0.0091)	0.0068 (0.0114)
	<i>War_&_Peace</i>				0.0042 (0.0076)	0.0091 (0.0095)
	<i>IP_Growth_Europe</i>		0.3708 (0.3621)	0.8147* (0.4571)	0.3853 (0.4142)	0.7834 (0.5305)
	<i>ΔInflation_Europe</i>		1.7116 (1.2937)	3.0879* (1.6140)	1.4573 (1.3653)	3.0913* (1.7094)
	<i>ΔUnemployment_Europe</i>		-4.2617 (3.7727)	-0.6713 (4.8934)	-4.2163 (4.0168)	-0.0881 (5.1970)
	<i>AbVol_Europe(-1,5)</i>		-0.0190 (0.0193)		-0.0215 (0.0212)	
	<i>AbVol_Europe(-1,10)</i>			-0.0249 (0.0277)		-0.0237 (0.0302)
	R-squared	0.1833	0.2848	0.3050	0.4107	0.3623
	Adjusted R-squared	0.1366	0.2439	0.2207	0.3393	0.1863
	F-statistic	3.9279	6.9688	3.6201	5.7504	2.0592
	Prob(F-statistic)	0.0062	0.0000	0.0015	0.0000	0.0236

Table IV (continued)

Panel B. Determinants of MSCI World Index Returns							
	Explanatory Variable	Dependent Variable					
		<i>Return_World</i> (-1,5)	<i>Return_World</i> (-1,10)	<i>Return_World</i> (-1,5)	<i>Return_World</i> (-1,10)	<i>Return_World</i> (-1,5)	<i>Return_World</i> (-1,10)
Content Variables	<i>Intercept</i>	-0.0250 (0.0320)	0.0086 (0.0414)	-0.0270 (0.0298)	0.0064 (0.0381)	-0.0429 (0.0336)	-0.0060 (0.0434)
	<i>Positive</i>	0.7949*** (0.2823)	1.2049*** (0.3662)	0.6302** (0.2704)	0.8914** (0.3455)	0.7666** (0.3029)	1.0095** (0.3903)
	<i>Abstract</i>	-1.1966* (0.6235)	-2.6150*** (0.8088)	-0.5551 (0.6239)	-1.6003** (0.8002)	-0.6717 (0.6906)	-1.7024* (0.8881)
	<i>Rectitude</i>	17.8971*** (5.4675)	21.6606*** (7.0914)	14.9981*** (5.1514)	18.6982*** (6.5691)	16.1831*** (5.5086)	19.9820*** (7.1064)
	<i>Region</i>	-2.3259* (1.2166)	-3.8989** (1.5779)	-2.8611** (1.1483)	-4.4770*** (1.4740)	-2.8902** (1.3255)	-4.8325*** (1.7060)
Themes	<i>Competitiveness</i>					0.0026 (0.0106)	0.0084 (0.0136)
	<i>Employment</i>					0.0067 (0.0066)	0.0043 (0.0085)
	<i>Productivity</i>					-0.0046 (0.0109)	-0.0088 (0.0139)
	<i>EU_Enlargement</i>					-0.0033 (0.0072)	-0.0030 (0.0092)
	<i>Justice</i>					-0.0024 (0.0080)	-0.0025 (0.0104)
	<i>Immigration</i>					0.0026 (0.0077)	0.0028 (0.0099)

Controls	<i>EU_Budget</i>				0.0115 (0.0083)	0.0125 (0.0107)
	<i>War_&_Peace</i>				0.0046 (0.0066)	0.0063 (0.0084)
	<i>IP_Growth_World</i>		0.1907 (0.4034)	0.8651* (0.5151)	0.1432 (0.4421)	0.8478 (0.5717)
	<i>ΔInflation_World</i>		1.5293 (1.1019)	2.9621** (1.4027)	1.7832 (1.1464)	3.2094** (1.4729)
	<i>ΔUnemployment_World</i>		-7.0666 (4.4110)	-1.0025 (5.6757)	-4.8001 (4.8382)	1.5236 (6.2635)
	<i>AbVol_World(-1,5)</i>		-0.0185 (0.0192)		-0.0212 (0.0208)	
	<i>AbVol_World(-1,10)</i>			-0.0131 (0.0263)		-0.0156 (0.0284)
	R-squared	0.2144	0.2655	0.3618	0.4220	0.4114
	Adjusted R-squared	0.1695	0.2235	0.2845	0.3520	0.2490
	F-statistic	4.7756	6.3258	4.6777	6.0240	2.5332
	Prob(F-statistic)	0.0018	0.0002	0.0001	0.0000	0.0051

Table V

Determinants of Cumulative Abnormal Returns

This table presents regressions in which Cumulative Abnormal Returns (CARs) around European Council meetings act as dependent variables. A constant-mean-return model has been utilized to calculate the CARs for two different indices and time periods. The list of explanatory factors includes content variables (definitions provided in Table I), dummies capturing the themes discussed in the meetings (*Competitiveness* through *War_&_Peace*), macroeconomic and abnormal volume indicators (see Appendix AI for more details). Standard errors of parameter estimates are given in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% level, respectively.

Panel A. Determinants of Cumulative Abnormal Returns (MSCI Europe Index Returns)

		Dependent Variable					
Explanatory Variable		<i>CAR_Europe(-1,5)</i>	<i>CAR_Europe(-1,10)</i>	<i>CAR_Europe(-1,5)</i>	<i>CAR_Europe(-1,10)</i>	<i>CAR_Europe(-1,5)</i>	<i>CAR_Europe(-1,10)</i>
Content Variables	<i>Intercept</i>	-0.0064 (0.0341)	0.0375 (0.0430)	-0.0015 (0.0354)	0.0331 (0.0454)	-0.0177 (0.0400)	0.0252 (0.0519)
	<i>Positive</i>	0.6925** (0.3015)	1.2886*** (0.3803)	0.5730* (0.3195)	1.1841*** (0.4112)	0.7660** (0.3578)	1.3155*** (0.4652)
	<i>Abstract</i>	-1.2595* (0.6659)	-3.2642*** (0.8400)	-0.9657 (0.7041)	-2.8269*** (0.9013)	-1.1140 (0.7877)	-2.8925*** (1.0077)
	<i>Rectitude</i>	22.0656*** (5.8387)	28.2901*** (7.3648)	20.6253*** (6.0409)	26.0410*** (7.6927)	21.2606*** (6.5876)	26.5408*** (8.5070)
	<i>Region</i>	-2.9928** (1.2992)	-5.2128*** (1.6388)	-3.3012** (1.3164)	-5.4362*** (1.6884)	-3.3696** (1.5454)	-6.0631*** (1.9823)
Themes	<i>Competitiveness</i>					0.0004 (0.0122)	0.0128 (0.0156)
	<i>Employment</i>					0.0029 (0.0076)	0.0007 (0.0098)
	<i>Productivity</i>					-0.0016 (0.0127)	-0.0085 (0.0161)
	<i>EU_Enlargement</i>					-0.0067 (0.0085)	-0.0096 (0.0109)
	<i>Justice</i>					-0.0057 (0.0098)	-0.0041 (0.0127)

Controls	<i>Immigration</i>				0.0064 (0.0089)	0.0055 (0.0113)
	<i>EU_Budget</i>				0.0083 (0.0091)	0.0017 (0.0118)
	<i>War_&_Peace</i>				0.0028 (0.0077)	0.0065 (0.0097)
	<i>IP_Growth_Europe</i>		0.0876 (0.3592)	0.2861 (0.4632)	0.1485 (0.4168)	0.3266 (0.5468)
	<i>ΔInflation_Europe</i>		0.9480 (1.2835)	1.7196 (1.6356)	0.7011 (1.3742)	1.7381 (1.7618)
	<i>ΔUnemployment_Europe</i>		-3.5901 (3.7429)	-0.3051 (4.9588)	-3.7954 (4.0429)	0.0469 (5.3563)
	<i>AbVol_Europe(-1,5)</i>		-0.0101 (0.0191)		-0.0137 (0.0214)	
	<i>AbVol_Europe(-1,10)</i>			-0.0011 (0.0281)		-0.0034 (0.0312)
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	R-squared	0.2314	0.3385	0.2744	0.3648	0.3147
	Adjusted R-squared	0.1875	0.3007	0.1864	0.2879	0.1257
	F-statistic	5.2694	8.9551	3.1195	4.7390	1.6649
	Prob(F-statistic)	0.0009	0.0000	0.0047	0.0001	0.0807
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Table V (continued)

Panel B. Determinants of Cumulative Abnormal Returns (MSCI World Index Returns)							
	Explanatory Variable	Dependent Variable					
		<i>CAR_World(-1,5)</i>	<i>CAR_World(-1,10)</i>	<i>CAR_World(-1,5)</i>	<i>CAR_World(-1,10)</i>	<i>CAR_World(-1,5)</i>	<i>CAR_World(-1,10)</i>
Content Variables	<i>Intercept</i>	-0.0145 (0.0293)	0.02662 (0.0387)	-0.0157 (0.0294)	0.0261 (0.0385)	-0.0304 (0.0334)	0.0162 (0.0443)
	<i>Positive</i>	0.7287*** (0.2591)	1.0915*** (0.3421)	0.6427** (0.2666)	0.9087** (0.3499)	0.7845** (0.3009)	1.0374** (0.3989)
	<i>Abstract</i>	-1.1776** (0.5724)	-2.5825*** (0.7556)	-0.8355 (0.6151)	-2.0577** (0.8105)	-0.8913 (0.6861)	-2.0793** (0.9075)
	<i>Rectitude</i>	20.0337*** (5.0186)	25.3234*** (6.6254)	18.4878*** (5.0785)	24.7150*** (6.6530)	19.2104*** (5.4730)	25.2381*** (7.2620)
	<i>Region</i>	-2.8934** (1.1167)	-4.8718*** (1.4742)	-3.1798*** (1.1320)	-5.0867*** (1.4929)	-3.3517** (1.3169)	-5.6510*** (1.7433)
Themes	<i>Competitiveness</i>					0.0016 (0.0105)	0.0067 (0.0139)
	<i>Employment</i>					0.0040 (0.0066)	-0.0003 (0.0087)
	<i>Productivity</i>					-0.0060 (0.0108)	-0.0113 (0.0142)
	<i>EU_Enlargement</i>					-0.0037 (0.0071)	-0.0035 (0.0094)
	<i>Justice</i>					-0.0034 (0.0080)	-0.0039 (0.0107)
	<i>Immigration</i>					0.0010 (0.0077)	0.0005 (0.0101)
	<i>EU_Budget</i>					0.0086 (0.0082)	0.0079 (0.0109)

Controls	<i>War_&_Peace</i>				0.0038 (0.0066)	0.0050 (0.0086)
	<i>IP_Growth_World</i>		0.0992 (0.3977)	0.7024 (0.5216)	0.1169 (0.4392)	0.7929 (0.5842)
	<i>ΔInflation_World</i>		0.9837 (1.0863)	2.0124 (1.4207)	1.1513 (1.1390)	2.1243 (1.5051)
	<i>ΔUnemployment_World</i>		-2.9126 (4.3486)	5.9175 (5.7482)	-1.2733 (4.8069)	7.4801 (6.4007)
	<i>AbVol_World(-1,5)</i>		-0.0138 (0.0189)		-0.0175 (0.0206)	
	<i>AbVol_World(-1,10)</i>			-0.0019 (0.0266)		-0.0080 (0.0291)
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	R-squared	0.2697	0.3233	0.3157	0.3742	0.3589
	Adjusted R-squared	0.2280	0.2846	0.2327	0.2984	0.1821
	F-statistic	6.4639	8.3590	3.8059	4.9339	2.0295
	Prob(F-statistic)	0.0002	0.0000	0.0010	0.0001	0.0260
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Table VI

National Stock Market Indices and Political Communications

The table below reports estimation results for the regressions linking the returns on national stock market indices with the characteristics of European Council announcements. Returns on four main European stock market indices summed in (-1,10) event windows, computed using continuous compounding and denominated in US dollars act as dependent variables. Definitions of content variables are provided in Table I. The last column in the table aggregates the data for the four countries into one panel regression. This panel regression incorporates both country and year fixed effects, which for the sake of conserving space are not reported here. Standard errors of parameter estimates are given in parentheses. ***, **, * denote statistical significance at 1%, 5% and 10% level, respectively.

Explanatory Variable	Dependent Variable				Two-Way
	FTSE 100 Returns	DAX 30 Returns	CAC 40 Returns	IBEX 35 Returns	Fixed-Effect Panel
<i>Intercept</i>	0.0475 (0.0533)	0.0412 (0.0587)	0.0375 (0.0541)	0.0650 (0.0652)	
<i>Positive</i>	1.6292*** (0.4712)	2.0805*** (0.5190)	1.9673*** (0.4783)	1.5591*** (0.5761)	1.5398*** (0.2685)
<i>Abstract</i>	-4.2386*** (1.0409)	-4.7848*** (1.1464)	-4.8161*** (1.0565)	-4.4812*** (1.2724)	-3.2568*** (0.5720)
<i>Rectitude</i>	28.0776*** (9.1263)	36.2354*** (10.0518)	31.9378*** (9.2631)	34.0561*** (11.1569)	27.1470*** (5.0527)
<i>Region</i>	-5.7947*** (2.0307)	-7.7384*** (2.2367)	-6.0938*** (2.0612)	-6.0069** (2.4825)	-6.1413*** (1.0394)
R-squared	0.3156	0.3697	0.3646	0.2569	0.5457
Adjusted R-squared	0.2765	0.3337	0.3283	0.2144	0.5025
F-statistic	8.0689	10.2651	10.0432	6.0488	12.6134
Prob(F-statistic)	0.0000	0.0000	0.0000	0.0003	0.0000

Appendix AI

Definitions of Control Variables

Panel A. Empirical Proxies for Macroeconomic Conditions in Europe		
Variable Name	Definition	Source
<i>IP_Growth_Europe</i>	Industrial production, growth previous period, seasonally adjusted, Euro Area	OECD, Key Short-Term Economic Indicators
<i>ΔInflation_Europe</i>	First difference in the monthly data on the annual rate of inflation in Harmonised Index of Consumer Prices, Euro Area	European Central Bank, Statistical Data Warehouse
<i>ΔUnemployment_Europe</i>	First difference in the monthly data the seasonally adjusted harmonised unemployment rates, Euro Area	OECD, Main Economic Indicators
Panel B. Empirical Proxies for Macroeconomic Conditions in the World		
Variable Name	Definition	Source
<i>IP_Growth_World</i>	Industrial production, growth previous period, seasonally adjusted, OECD	OECD, Key Short-Term Economic Indicators
<i>ΔInflation_World</i>	First difference in the monthly data on the annual rate of change in the Consumer Price Index, OECD	OECD, Main Economic Indicators
<i>ΔUnemployment_World</i>	First difference in the monthly data on the seasonally adjusted harmonised unemployment rates, OECD	OECD, Main Economic Indicators, Labour Force Survey
Panel C. Empirical Proxies for Abnormal Trading Volume		
Variable Name	Definition	Source
<i>AbVol_Europe</i>	Abnormal trading volume averaged across four major European stock markets. More specifically, a percentage increase in volume was calculated for FTSE100, DAX30, CAC40, and IBEX35 in the event window relative to a 20 day pre-event window. An equally-weighted average across all indices was then taken. Two event windows are considered, namely (-1,5) and (-1,10).	Bloomberg
<i>AbVol_World</i>	The calculation of <i>AbVol_World</i> is similar to that of <i>AbVol_Europe</i> . The only difference is that the volumes on	Bloomberg

S&P500 and NIKKEI225 are also considered in addition to the four European indices.