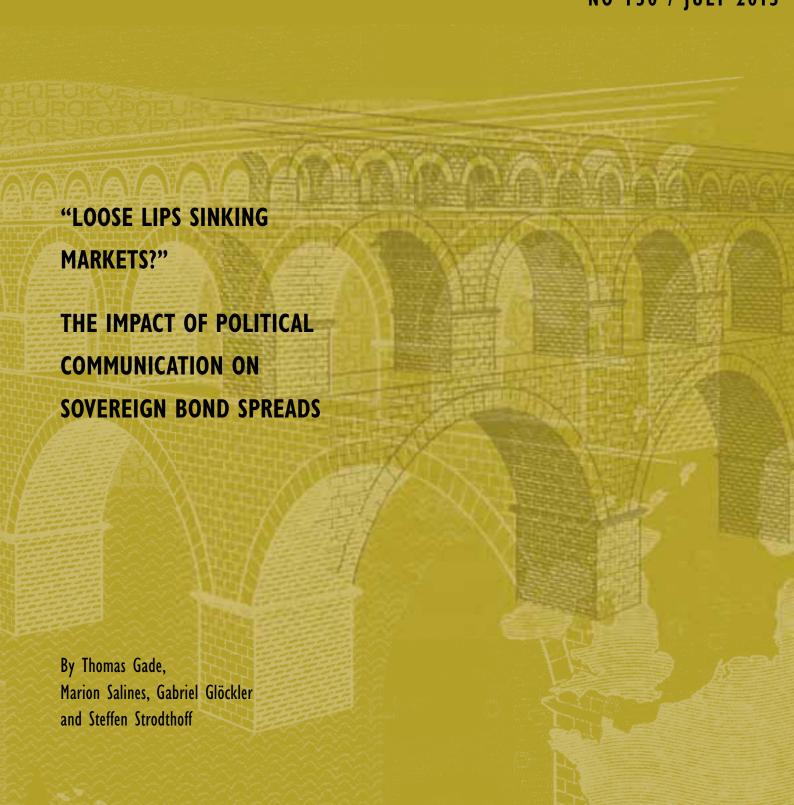


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"LOOSE LIPS SINKING MARKETS?"

THE IMPACT OF POLITICAL **COMMUNICATION ON SOVEREIGN BOND SPREADS**

by Thomas Gade, Marion Salines, Gabriel Glöckler and Steffen Strodthoff



NOTE: This Occasional Paper should not be reported as representing the views of the European Central Bank (ECB). The views expressed are those of the authors and do not necessarily reflect those of the ECB.

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ABSTRACT

Taking a cue from the assertion that "loose lips sink markets" (Carmassi and Micossi, 2010), this paper investigates to what extent and why political communication has had an impact on the sovereign bond spreads of selected euro area countries over the German Bund. Drawing on 25,000 news media releases between January 2009 and October 2011, it empirically compares political communication across various political actors at the supranational and national levels in the euro area. It finds empirical evidence that, in the short term, certain types of political communication have a quantifiable effect on sovereign bond spreads. This effect can be positive or negative depending on the type of communication, possibly fuelling self-reinforcing feedback loops between markets and policy actions. Subsequently, this paper explores possible reasons for this observed phenomenon. It analyses the specific economic, political and institutional context in which political communication works in Europe and finds that the potential for miscommunication is structurally higher in the euro area than in other nation-based currency areas. Finally, the paper identifies avenues to make communication policy more effective and puts forward possible measures to mitigate the risks of miscommunication.

JEL-codes: C22, D70, E43, E44, E61, E62, G12, G14, F50

Keywords: Public finances, sovereign debt crisis, sovereign bond spreads, political communication, announcements.

NON-TECHNICAL SUMMARY

This paper investigates to what extent and why political communication has had an impact on the sovereign bond spreads of selected euro area countries over the German Bund during the sovereign debt crisis. Motivated by the observation that, during this crisis, markets seem to have hung on the lips of even less well-known politicians, and to have responded to all sorts of political announcements, it explores whether the potential for miscommunication may be structurally higher in Economic and Monetary Union (EMU) than in traditional nation states.

The paper finds empirical evidence that in the short term, on the basis of daily data, certain types of political communication – defined as, and restricted to, policy-makers' pronouncements on fiscal policy and public finances – do have a quantifiable effect on sovereign bond spreads for three of the EU-IMF programme countries under investigation, namely Greece, Ireland and Portugal. This effect can be positive or negative depending on the type of communication, and the effect is largest for Greece.

The paper contends that the potential for miscommunication is structurally higher in EMU than in other (nation-based) currency areas owing to three factors. First, the institutional "double disjuncture" between bondholders, sovereigns and the central bank means that a monetisation of sovereign debt through "national" central bank intervention, which might be expected – in extremis – in traditional nation states, is not only explicitly prohibited by the EU Treaties and the constitutionally enshrined independence of the central bank, but is also further buttressed by the removal of the central bank from the domestic political system and its shift to the supranational level. Second, there is a mismatch between the degree of interdependency achieved through monetary union and the level of economic, financial and political integration in the euro area, where a single monetary policy co-exists with 17 economic policies conducted by 17 national governments, which are subject to 17 national public discourses. Third, the complexity of decision-making in the euro area, and the sui generis nature of its institutional and policy framework is difficult for markets to understand. The absence of clearly defined centres of political authority (e.g. there is no "euro area treasury secretary") leads to a dispersion of the focus of market attention and concomitantly more "noise" in political communication.

In the context of the euro area's specific institutional features, the findings of this empirical analysis allow tentative conclusions to be drawn – albeit with various caveats and limitations – and avenues identified that could render communication policy more effective. A carefully designed communication strategy could seek to minimise the financial impact of political announcements on sovereign bond yields. That said, under no circumstances should the open political discourse in Europe's liberal democracies be subordinated to the ostensible necessities of sovereign debt markets.

"I would recommend thinking very carefully about what impact [EU policy-makers'] comments may have on the markets. A bit more restraint would sometimes be appropriate. [...]

I'm not mentioning any names, but the guilty parties know who they are."

(Dutch Finance Minister, J.K. de Jager, Interview with DER SPIEGEL on 22 August 2011)

I INTRODUCTION

The (mal)functioning of government bond markets in the euro area is at the heart of the sovereign debt crisis. Since 2009 a dual phenomenon can be observed: a sharp rise in the spreads of government bonds of certain euro area countries over the German Bund and increased differentiation within the euro area. The magnitude and the suddenness of the rise in spreads of peripheral countries cannot be fully accounted for by traditional economic and financial determinants such as credit risk and liquidity risk. For example, why did the Greek spread escalate from 140 basis points in early November 2009 to nearly 600 basis points in late March 2010? De Grauwe and Ji (2012) present evidence that a significant part of the surge in the spreads of euro area peripheral countries (Ireland, Greece, Italy, Portugal and Spain) during 2010-11 was disconnected from underlying increases in debt-to-GDP ratios. There is thus a need to go beyond the economics of the euro area and its 17 individual economies to fully understand the dynamics of the euro area debt crisis.

Some have pointed to the adverse interaction between markets and politicians as a possible cause for the exacerbation of the financial turmoil. Preliminary research by Carmassi and Micossi (2010) suggests that inconsistent statements by politicians at critical junctures may have deepened the crisis by instilling further doubt in the markets about the ability of the euro area's policy-makers to respond collectively to the crisis in an adequate manner. This may reflect a deep misunderstanding between markets and politicians, as outlined by former member of the ECB's Executive Board, Lorenzo Bini Smaghi (2011): "On the one hand, markets do not understand why the governments of European countries are slow to adopt the necessary measures to solve problems, postponing decisions and creating uncertainty about their actual intentions. On the other hand, the political authorities often do not understand how the financial markets work; they deeply despise them, but at the same time depend on them to finance their budgets". The discrepancies between prolific rhetoric for the purposes of political contestation, along the lines of "If the euro fails, Europe will fail" and prudent communication to markets along the lines of "We will do whatever is necessary to safeguard the euro" have come to the fore more than once since the onset of the euro area crisis.

The assertion that "loose lips sink markets" (Carmassi and Micossi, 2010) or that "loose lips can sink the euro" (The Economist, 2011) raises a number of questions in the specific context of the sovereign debt crisis. First, does political communication have an inordinate impact on the sovereign debt markets in the euro area? Economic theory suggests that rational agents in the sovereign debt markets will take into account all available information and are able to see beyond the "noise" of day-to-day statements of politicians in order to focus on fundamentals. Did this assertion not hold during the European sovereign debt crisis?

Second, if political communication did have a noticeable impact, why was this? What is special about the situation in Europe that leads markets to hang on the lips of even less well-known politicians and respond to all sorts of political announcements? The analysis should go beyond establishing econometrically a relationship between different instances of political communication and the development of sovereign yields in selected countries. It needs to focus on the specific

institutional and political context in the euro area, and on the decision-making processes that are perceived as having a potential impact on markets.

This paper investigates to what extent and why political communication has had an impact on sovereign bond spreads in the euro area.

First, it explores empirically whether a statistical link can be established between various forms of political communication and the sovereign debt spreads of Greece, Ireland and Portugal over the German Bund between January 2009 and October 2011. For the purposes of the analysis presented in this paper, political communication is defined as, and restricted to, public pronouncements on fiscal policy and public finance by policy-makers at the EU and national levels. It finds that such statements do indeed have a quantifiable impact on yield spreads. This effect can be positive or negative depending on the type of communication and its author. An increase in positive words typically contributes to a reduction in the yield spread, while an increase in negative words contributes to an increase in yield spreads. In Greece and Ireland, this effect is asymmetric such that the quantitative impact is typically larger for negative words than for positive words. Moreover, on balance, policy-makers at the supranational level communicate more positively than those at the national level.

Second, this paper attempts to identify the various factors which make political communication in the euro area "special" and which account for the interplay between politics and markets observed during the crisis. It contends that owing to the sui generis nature of EMU, the potential for miscommunication is structurally higher in EMU than in other (nation-based) currency areas. The reason behind this may be a structural feature of the euro area which is due to: (i) the institutional "double disjuncture" between bondholders, sovereigns and the central bank, meaning that a monetisation of sovereign debt via the "national" central bank intervention, which might be expected – in extremis – in traditional nation states, is not only explicitly prohibited by the EU Treaties and the constitutionally enshrined independence of the central bank, but is also further buttressed by the removal of the central bank from the domestic political system and its shift to the supranational level; (ii) the mismatch between the degree of interdependency achieved through monetary union and the level of economic, financial and political integration in the euro area, where a single monetary policy co-exists with 17 economic policies, conducted by 17 national governments, debated and approved by 17 national parliaments and discussed in 17 national media; and (iii) the institutional complexity of decision-making in the euro area, which makes it particularly difficult for market participants to weigh accurately the importance of statements by policy-makers in the euro area. These structural difficulties have been exacerbated by the sovereign debt crisis. European politicians have found it challenging to adjust to a situation where their messages are not only targeted at the desired audience, but are also picked up by markets (Glöckler, 2012).

Third, despite various caveats and limitations, on the basis of the findings of the empirical analysis and in the context of these specific institutional features of the euro area, this paper draws tentative conclusions and identifies possible avenues to render communication policy more effective. Specifically, whenever policy-makers in Europe "speak constructively", whenever they "speak consistently" and whenever they seek to "improve the impact of the pronouncements of decision-makers engaged in EU affairs 'full-time'", it might render such communication more effective in terms of the impact on sovereign debt markets.

This paper is structured as follows. Section 2 reviews the existing literature on the determinants of sovereign bond yield spreads and defines political communication. Section 3 introduces the empirical case study, its methodology and dataset, and quantifies the impact of political communication on sovereign bond spreads in three euro area countries. Section 4 attempts to explain those results through a qualitative analysis of the specific institutional aspects that shape market perception of political communication in Europe. Section 5 concludes by identifying possible avenues to render communication policy more effective and to possibly mitigate political miscommunication in the future.

2 SETTING THE SCENE: SOVEREIGN BOND YIELDS AND POLITICAL COMMUNICATION IN EUROPE

2 SETTING THE SCENE: SOVEREIGN BOND YIELDS AND POLITICAL COMMUNICATION IN EUROPE

2.1 DETERMINANTS OF SOVEREIGN BOND YIELD SPREADS

In trying to explain the determinants of government bond spreads, the existing literature mainly looks at economic and financial factors, rather than communication by politicians. Traditionally, the main variables influencing the risk premium paid by governments relative to the benchmark government bond can be summarised as follows. First, sovereign bond spreads are influenced by a country's creditworthiness as reflected by its fiscal and macroeconomic position (the so-called credit risk or the ability to honour its debt obligations). Second, liquidity risk, i.e. the size and depth of the government's bond market, plays a role in determining the yield (i.e. the liquidity premium). Third, government bond yields reflect international risk aversion, i.e. investor sentiment towards an asset class for each country (Attinasi et al., 2009).

As regards more specifically the euro area, Arghyrou and Kontonikas (2011) find that in the decade prior to the global credit crunch (from January 1999 to July 2007), generally markets priced in neither economic fundamentals – with the possible exception of expected fiscal deficits – nor the international risk factor, which was perceived as being very low. While the institutional set-up of EMU as embodied in the Maastricht Treaty was intended to encourage market discipline and differentiation between euro area borrowers, in fact markets showed little inclination to punish countries with deficit or debt levels above the thresholds of the Stability and Growth Pact. This was because, despite the threat of default implicit in the "no bail-out" clause and the monetary financing prohibition, euro area government bonds were not seen by market participants as containing credit risk (Yiangou et al., 2013). In recent years, a number of scholars have attempted to explain how the crisis has affected the usual determinants such as credit risk and liquidity risk. In particular, two parallel phenomena are explored: on the one hand, the sharp rise in government bond spreads in the euro area; on the other hand, an increased differentiation between euro area countries. Two main findings emerge from the literature. First, the observed increase and widening in government bond spreads within EMU countries has been caused by an increase in the general risk perception (see Arghyrou and Kontonikas, 2011; Barrios et al., 2009). Second, markets have been paying much closer attention to fiscal and macroeconomic imbalances than in the run-up to the crisis (Arghyrou and Kontonikas, 2011). Therefore, the interaction of economic fundamentals with the common international risk factor largely explains the double phenomenon described above (see Arghyrou and Kontonikas, 2011; Barrios et al., 2009).

As regards the first factor, the global economic downturn has been accompanied by an increase in both the amount and the price of the perceived global risk associated with investments in sovereign bonds, relative to the safe havens of the United States and Germany (Arghyrou and Kontonikas, 2011). This also explains the across-the-board increase in EMU spreads. As regards the second factor, the impact of domestic variables has become more pronounced in times of financial stress, when international investors have started to discriminate more between countries (e.g. Barrios et al., 2009). Schuknecht et al. (2010) observe that markets penalise fiscal imbalances much more strongly after the Lehman Brothers' default in September 2008 than previously: this shift accounts for much of the spread increase for the government bonds of EU Member States relative to German or US treasury benchmarks. The coefficient for deficit differentials is three to four times higher and for debt differentials seven to eight times higher during the crisis period than earlier. Schuknecht et al. (2010) come to the conclusion that market valuation of sovereign risks remains a valid mechanism to discipline fiscal policy. Attinasi et al. (2009) also find that higher

expected budget deficits and/or higher government debt ratios relative to Germany contributed to higher government bond yield spreads in the euro area between July 2007 and March 2009. More importantly, the announcement of bank rescue packages in autumn 2008 led to a reassessment by investors of sovereign credit risk, first and foremost through a transfer of risk from the private financial sector to the government (Attinasi et al., 2009).

Moreover, there is growing anecdotal evidence according to which the rational agent hypothesis in the functioning of the price-formation mechanism in bond markets is open to question altogether. Findings from behavioural economics and psychology can assist in explaining market outcomes, including bond yields. Crowd psychology ("herd behaviour") may help to explain how, during a market sell-off, individual traders are prone to "rush for the exit" at the same time, regardless of a rational assessment of underlying fundamentals. Prevailing regulations and possible rigidities in corporate governance of financial institutions can explain asymmetric investor behaviour in bond markets. For example, a complete exit from certain bond markets may be procedurally easier – e.g. through a fund manager's decision – than re-entering a potentially risky market, which requires a decision of the company's risk committee or even authorisation of the company board. Another explanatory factor is that the complexities of the economic and political situation of a given country, say Spain, are necessarily reduced, especially for less sophisticated investors, who tend to bundle together countries with apparently similar characteristics such as Greece, Ireland, Italy, Portugal and Spain (e.g. under the term "peripherals") without regard to the specific situation in each country which, rationally, would call for a differentiated approach.

Finally and mainly related to credit risk, the impact of political communication, i.e. the effect of announcements by policy-makers, has gained more prominence as empirical determinants in the development of sovereign bond spreads. Mohl and Sondermann (2013) find that statements by euro area politicians about debt restructuring, bailout and the involvement of the European Financial Stability Facility (EFSF) have had an impact on bond spreads. The more euro area governments issued statements at the same time, the more bond spreads increased. In addition, the impact on spreads was particularly strong when politicians from AAA-rated countries communicated to the public. Beetsma et al. (2012) do not limit themselves to political communication, and investigate the impact of "news" in general (based on Eurointelligence daily briefings). They find that more news on average has raised the interest spread of Greece, Italy, Ireland, Portugal and Spain since September 2009 and that there is evidence of some spillover effects between those countries.

The present paper goes beyond the approach followed so far in two ways. First, it applies a concept of semantic orientation and classifies the types of communication according to their expected positive and negative connotation in relation to public finances. Second, it does not restrict itself to establishing econometrically a relationship between different instances of political communication and the development of sovereign yields in selected countries. It also undertakes a qualitative analysis of the underlying factors of the specific interaction between politics and markets in the euro area and puts forward policy recommendations for communication policy.

2.2 POLITICAL COMMUNICATION IN EUROPE

The literature on political communication is vast, and political communication can take many forms. Denton and Woodward (1990) characterise political communication simply as "pure discussion about the allocation of public resources, official authority, and official sanctions". According to McNair (2011), the same authors stress the *purpose* and *intentionality* of political actors in influencing the political environment. This includes means of public political discussions

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in legislative fora, public speeches, press releases, interviews or pure statements. While this applies to both national and supranational policy-makers in Europe, the typical form of transmitting the commonly agreed policy at the supranational level for matters relating to EMU is via, for example, agreed joint statements by the Eurogroup, Council conclusions, as well as press releases/statements by the Presidents of the European Council, the Eurogroup and the current EU Presidency.

In transmitting such political communication, the mass media, and probably also social media, play an increasing role. In the absence of direct communicative links, European actors, issues, and policies have to be made visible by the mass media, and it is in this public forum that they may gain public resonance and legitimacy. The public can build its opinion about the distant European institutions and the complexities of multi-level policies only to a very small extent on direct personal experience and must therefore rely on how Europe becomes visible in the mass media. The discrepancy between the European Union's institutional development and the continuing predominance of the national political space as the arena for public debates is a core aspect of Europe's "democratic deficit" (Eurpub.com, 2001).

For the purpose of this study, the intentionality of political communication by European policy-makers is fully acknowledged. However, the study shows that political communication, if not carefully considered, may have unintentional consequences that carry a financial cost. In doing so, this paper defines political communication as statements on fiscal policy or public finances by European policy-makers being expressed via news agencies either actively or reactively in the daily flow of news releases.

Drawing on 25,000 news media releases (reports by news media), Chart 1 presents the most frequent words related to fiscal policy and stated by European policy-makers on a daily basis from January 2009 to October 2011. Needless to say, the word "debt" features prominently.



3 EMPIRICAL ANALYSIS: QUANTIFYING THE EFFECT OF POLITICAL COMMUNICATION

3.1 MEASURING POLITICAL COMMUNICATION ON FISCAL POLICY

As a way of measuring political communication this study applies a simple word count, measuring total communication, a variable of "positive" communication and of "negative" communication as well as the balance of positive and negative communication related to fiscal policy. Kalbhenn (2012) provides an overview of how to structure qualitative data. As a way of structuring political communication, this paper follows the "classification – known categories" approach, whereby a search for a pre-defined set

Table I Words of relevance	
	Counts
Debt	4,999
Deficit	3,043
Private Sector Involvement (PSI)	212
Haircut	203
Restructuring	760
Public	2,820
Fiscal	2,381
Euro zone/euro area	3,643

of words is run and then grouped via individual classification according to a subjective, although economically intuitive, relation to public finance and fiscal policy. Thereafter, a test for statistical significance of these groups on sovereign bond spreads is performed.

More specifically, a search algorithm is developed, which searches through 25,000 news media releases (Bloomberg, Dow Jones News Wire, Market News International and Reuters) related to economic or political economic events and collected via the Real Time information systems of the ECB from January 2009 to October 2011². The search is ranked, such that the news media releases are first searched according to relevance criteria in the form of a set of words related to fiscal policy and public finances (see Table 1). The application of relevance criteria allows only news media reports that contain an element of fiscal policy or public finance related material to form a continued basis in our empirical analysis.

As a next step, the algorithm searches for the name of the 27 EU ministers responsible for economic and financial affairs, i.e. the members of the EU Council for Economic and Financial Affairs, the 27 Heads of State or Government, i.e. the members of the European Council and key policy-makers of the EU institutions, i.e. the EU Commissioner responsible for economic and financial affairs, the President of the European Commission and the President of the European Council.

Thereafter, the algorithm searches for predetermined words that are expected to have either a positive or a negative connotation in relation to fiscal policy or public finance (see Table 2). Needless to say, this involves a level of educated judgement (economic theory and intuition) on the expected relation

Table 2 Positive and negative words related to public finances

Positive words	Count	Negative words	Count
Strengthen	818	Weaken	333
Decisive	245	Indecisive	3
Frontloaded	16	Delayed	133
Sustainable	516	Unsustainable	187
Determination	625	Undetermined	2
Bolster	236	Undermine	195
Implement	1,441	Delay	548
Adopt	1,064	Reject	754
Consolidate	1,145	Worsen	537
Substantial	389	Insignificant	7
Comprehensive	422	Incomprehensive	0
Specific	411	General	971
Certain	697	Uncertain	565
Reassuring	36	Worrying	93
Stabilise	394	Destabilise	53
Bright	46	Gloomy	22
Succeed	284	Fail	1,610
Improve	1,078	Deteriorate	92
Praise	133	Warn	1,310

² The Real Time information system is an internal database of relevant news media releases compiled by the ECB on a daily basis. Mohl and Sondermann (2012) apply a similar dataset although over a shorter time span.

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COMMUNICATION

Table 3 Registration of entries in news media releases									
F	Relevance	Policy-	-maker	P	ositive word	s	Negativ	ve words	Country
debt	public finances	Minister X	Minister Y	consolidate	adopt	improve	weaken	destabilise	Greece
0	1	1	0	1	1	0	0	1	1

between certain words and fiscal policy. This subjective choice of words resembles the method (although a simplification thereof) of semantic orientation applied by Lucca and Trebbi (2009) in their estimation of the impact of Federal Open Market Committee (FOMC) communication on US treasury yields. The study does not control for negation, in the sense that a word could be preceded by the word "not" and thereby reversal of its meaning. However, based on samples, there is no evidence of negation contaminating our dataset and thus possibly creating biased estimates.

The algorithm registers all of the details above with a simple 0-1 marker. In addition, the algorithm registers if a certain country or several countries are mentioned in the final news media releases.

To give an example, the following news media release would be registered as in Table 3 above:

"... Minister X, called for Greece, which is currently facing financial difficulties, to urgently adopt the measures necessary to consolidate public finances, which otherwise threaten to destabilise ...".

In sum, the final dataset allows for a breakdown of 25,000 news media releases according to relevance, specific policy-maker, specific policy-related words, specific countries and across time from January 2009 to October 2011. As there are many news media releases on a given day, all the registrations are aggregated into daily data and sorted according to the subset under empirical analysis.

3.2 EMPIRICAL METHODOLOGY

To establish and quantify the impact of certain types of political communication on 10-year sovereign bond yield spreads, this study applies standard OLS estimation for individual peripheral sovereigns. The breakdown of political communication on individual countries also allows for the establishing of possible contagion effects. The generic model applied can therefore be written as follows:

$$\Delta Spread_{it} = \beta_0 + \beta_1 Comm_{it} + \beta_2 PSI_{it} + \beta_3 Risk_{it} + \beta_4 Econ_{it} + \beta_5 CRA_{it} \\ + \beta_6 Events_{it} + \beta_7 Contagion_{it} + \varepsilon_t$$

The model includes both a communication variable (Comm) or variables, consisting of various measures of the words mentioned in Table 2, and a variable of the sum of words related to sovereign debt restructuring (PSI). A number of control variables are included, i.e. other variables which may influence sovereign bond spreads. These control variables are categorised as financial risk (Risk), which is captured by the Chicago Board Options Exchange Market Volatility Index, VIX, economic fundamentals (Econ), which are captured by GDP, HICP, business sentiment and the unemployment rate as well as changes to credit ratings (CRA), as an indicator of the state of public finances and credit worthiness. A control variable including events related to political meetings or

agreements (Events) is also included, and, finally, the communication variables for other countries are included to capture potential contagion effects (Contagion).

As the study applies daily data, economic data is collected from Bloomberg at the date/time of the release of the economic data as well as the forecasted value by financial market participants. This allows for the inclusion of variables for macroeconomic surprises, since the forecasted value (expected value) of a certain macroeconomic release – in theory – would already have been priced into the value of the financial asset, and as such only the surprise should influence the daily price. In the empirical estimation we include both actual outcomes as well as surprise variables. The estimation technique is standard OLS for reasons of simplicity and in order to capture the effect on individual programme countries as well as the possible contagion effects. The model is estimated as general-to-specific. Meanwhile, to correct for heteroskedasticity and autocorrelation typically contained in financial market data, t-values calculated on the basis of heteroskedastic and autocorrelation consistent standard errors are reported as a precaution. Other papers exclusively focused on the econometric relation have applied other methods such as panels and/or ARCH/ GARCH type models (see, for example, Mohl and Sondermann, 2013; Beetsma et al., 2012; or Ehrmann et al., 2012).

We expect ex ante that positive communication would reduce spreads and negative communication increase spreads. However, the distinction between positive and negative communication also depends on investor perception and position. One statement/word can be viewed by one investor as a positive piece of communication and by another one as a negative one, depending on their investment strategies. For example, the word "consolidate" can be associated with both a positive content (e.g. lower deficits, better sustainability of public finance in the future) and a negative content (e.g. lower GDP growth, higher unemployment, etc.). Similarly, depending on the long or short position of the investor, the expected positive or negative effect would be opposite. However, from the perspective of this paper, the expected effect of positive or negative words would be similar to that of long-position investor in sovereign bonds.

An intuitive argument is to question the causality between sovereign bond spreads and political communication - or the endogeneity of political communication - i.e. whether sovereign bond spreads actually increases as a result of political communication or whether political communication increase as a result of rising sovereign bond spreads. The study addresses this question in two partial ways. First, via the construction of the data: the data on yield spreads is collected as of end-of-day, while the construction of the communication variable is on the basis of news releases during the day. Hence, communication on a given day would take place ahead of the recording of the yield spread. As a second step, a set of simple Granger causality tests are run, in which we include enough lagged variables to determine any reversed causality both in the short term and over a reasonable longer period. For Greece, the study finds evidence of Granger causality from political communication to sovereign bond spreads in the short-term and not vice versa. However, when allowing for more time lags, the Granger causality test for Greece becomes inconclusive. For Ireland, the test is inconclusive for the short term and the long term, suggesting a highly contemporaneous relationship, while the indication for Portugal is that changes in sovereign bond spreads seem to precede political communication. In other words, with the possible exception of Greece, there is no clear indication from the Granger causality tests alone. However, the results from the Granger causality test do not capture the possible contemporaneous relationship while simultaneously also correcting for other financial, economic and political factors. When doing so, as well as taking comfort from the causality implied by the construction of the data, as well as the

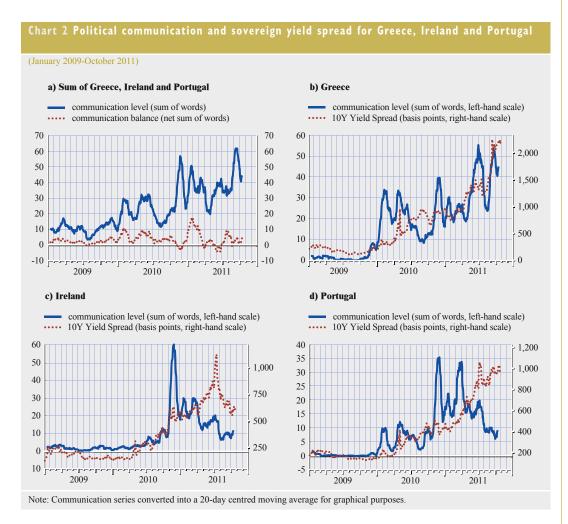
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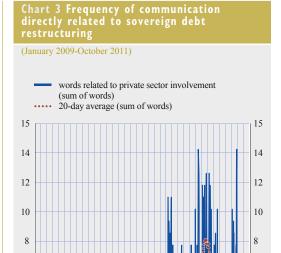
qualitative qualification provided below, the authors deem the results reliable enough to draw some tentative policy conclusions for communication policy.

3.3 DISCUSSION OF THE FINDINGS

INCREASING POLITICAL COMMUNICATION FOR BETTER AND FOR WORSE DURING THE CRISIS

The total level (sum) of political communication on fiscal policy has increased markedly during the sovereign debt crisis. As indicated in Chart 2, the level of communication, measured by the sum of both positive and negative communication by European policy-makers, remained fairly moderate until 2010, when the EFSF and the European Financial Stabilisation Mechanism (EFSM) were established and the first financial support packages for Greece, Ireland and Portugal were decided upon. Thereafter, political communication gradually increased as the sovereign debt crisis intensified (top left). The balance of communication, measured as the difference between positive and negative communication, remained balanced, with communication on average being more positive than negative during the period under review. However, the balance of communication became more volatile as the sovereign debt crisis intensified in 2010, and there are significant periods of time in which negative communication outweighed positive communication (Chart 4 shows how changes in yield spreads are related to the balance of communication).



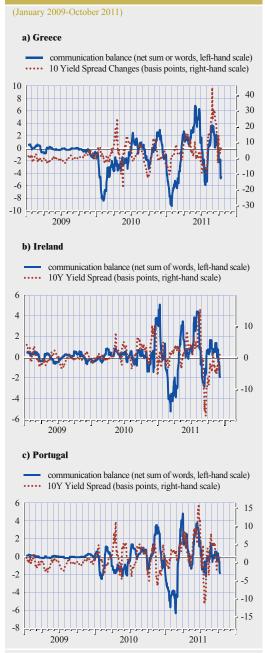


Note: Total sum of words ("private sector involvement", "haircut", and "restructuring") on a daily basis.

When comparing the political communication related to Greece, Ireland and Portugal, it becomes clear that the upward trend in communication concerning Greece (top right) has taken place in parallel to the marked rise in the sovereign yield spread. Meanwhile, communication related to Ireland (bottom left) abated in the course of 2011, following a sharp peak in the sovereign yield spread. Communication on Portugal stands out as the level of communication seemed to have abated over 2011, while the sovereign yield spread clearly continued to rise (bottom right).

As shown in the empirical exercise, this is only partially explained by the marked increase at the end of 2010 and throughout 2011 in the frequency of words related to sovereign debt restructuring, such as "private sector involvement" (PSI), "restructuring" and "haircut", and of course the (perceived) increase

Chart 4 Balance of communication and changes in sovereign bond yield spreads



Note: The balance of communication is reversed and all variables are converted into a 20-day moving average for graphical purposes.

in the risk of a sovereign debt restructuring, as also indicated in Chart 3, but which was instead related mostly to developments in political communication and the sovereign credit rating.

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3 EMPIRICAL ANALYSIS: QUANTIFYING THE EFFECT OF POLITICAL COMMUNICATION

BALANCE OF COMMUNICATION AND CHANGES IN SOVEREIGN BOND YIELD SPREADS

Correcting for financial, economic and other political events, this study finds that political communication – both of a positive and negative nature – does have a daily contemporaneous effect on sovereign bond yield spreads (see Table 4). An increase in the occurrence of positive words typically contributes to a reduction in the yield spreads, while an increase in negative words contributes to an increase in yield spreads, i.e. it leads to an increase in the implied cost of borrowing compared with that for Germany. This study finds this effect to be significant, although relatively small in its quantitative effect. In addition, in two out of the three countries investigated, this effect is asymmetric, such that the quantitative impact is typically larger for negative words than for positive words. The largest effect is found in Greece, where a one unit (one word in a political statement reported by a news media agency) increase in negative political communication leads to an increase in the yield spread of 0.7 basis points, while the effect is smaller for Ireland and Portugal, with increases of 0.4 and 0.17 basis points respectively.

This study finds only limited evidence of an impact of words related to sovereign debt restructuring in the form of private sector involvement, haircut, etc., as it only seems to be the case for sovereign bond yields for Ireland. This may be owing to one-off effects, i.e. when there is a shift in the perception of the likelihood of sovereign debt restructuring, this is reflected in a one-off persistent shift in the sovereign bond price. This study also finds only limited (non-significant) evidence of possible contagion effects, such that communication related to one euro area country causes a shift in sovereign bond yields in another euro area country. Similarly, an interesting finding is that economic fundamentals appear not to have a significant influence on bond spreads in the short term, but are instead overwhelmed by statements, credit rating changes and country specific events.³

Table 4 Empirical estimates of the impact on severaign hand spreads from standard OLS

Table 4 Em	piricai est	imates o	r the impa	ict on sov	ereign bo	ona spreac	is irom st	andard U	LS
Greece			Ireland			Portugal			
Variable	Coeff.	t-value	t-HACSE	Coeff.	t-value	t-HACSE	Coeff.	t-value	t-HACSE
COMPOS	-0.56	-2.75**	-3.06**	-0.36	-3.22**	-2.14**	-0.22	-1.90*	-1.56*
COMNEG	0.70	2.96**	2.35**	0.38	3.43**	2.02**	0.17	1.44	1.22
PSI				0.50	2.06**	1.46*			
VIX									
GDP									
CPI									
UR									
CRA	-6.55	-0.80	-0.88				-15.5	-2.74**	-2.50**
EVENTS	-33.1	-4.88**	-1.61				-2.94	-0.61	-0.69
EG	-4.93	-0.96	-0.93						
Contagion									
GR COMBAL									
IE COMBAL									

Note: Significance is indicated at the * (10%) and ** (5%) levels. Significance is presented both on the basis of normal standard errors and heteroskedastic and autocorrelation consistent standard errors (HACSE). COMPOS and COMNEG is the sum of positive and negative words respectively.

PT COMBAL

³ This finding may hold for the short-term only, while economic fundamentals would be expected to remain key explanatory factors driving sovereign bond yields and spreads in the medium to long term.

DOES IT MATTER WHO SPEAKS?

Comparing communication by policy-makers at the supranational and at the national level⁴, this study finds that policy-makers at both levels on average communicate more positively than negatively on fiscal policy and public finances. However, policy-makers at the supranational level on average communicate even more positively than those at the national level (see Chart 5).

This difference may result from the policy-maker being in a supranational non-elected position, versus being a nationally elected policy-maker who is therefore catering to a national electorate. This is underscored to some extent by the most prominent word among supranational policy-makers being "implement", while the most prominent word among national policy-makers is "fail". Although there are a number of similarities in the word frequency used both at the supranational level and the national level, the frequency of political communication suggests that supranational policy-makers point towards the need for others to take action, while national policy-makers more prominently refer to the failings of others. This was particularly the case in late 2010 following the financial support packages provided to Greece, Ireland and Portugal, as well as in late 2011 at the beginning of the negotiations for a second economic adjustment programme and the voluntary sovereign debt restructuring for Greece.

The next section will investigate the underlying factors explaining the specific interaction between markets and politics outlined in the econometric analysis carried out in the context of this study.

Supranational National (excl. BIG4) Quotes 3.1 114 8.1 **Positive** 3.8 10.1 6.1 Negative 2.1 8.7 5.0 **Balance** 1.7 1.4 1.1 Most frequent Implement Fail Fail Supranational National (all) Reject Worsen Strengthen

Notes: Daily averages of word counts. The ECB is excluded from the supranational level. The "BIG4" is defined as policymakers from the biggest four EU Member States (Germany, France, Italy and Spain).

4 Policy-makers at the supranational level are defined as the main decision-makers on economic policies of the European Council and the European Commission.

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4 EXPLAINING THE SPECIFICITY OF THE INTERPLAY BETWEEN POLITICAL COMMUNICATION AND MARKETS IN THE EURO AREA

4.1 THE SPECIFIC CONTEXT OF POLITICAL COMMUNICATION IN EUROPE

Political communication in Europe operates in a very specific economic and political context. This is hardly comparable to any national context: the sui generis nature of the institutional set-up of EMU and notably the characterisation of the euro as a "currency without a State" (Padoa-Schioppa, 2004) are essential factors in this respect. Three structural features deserve to be highlighted in this respect.

First, government bond markets in the euro area are very specific because of a type of "double disjuncture" between sovereigns, central banks and bondholders. The creation of EMU and the codification of the monetary financing prohibition in the Maastricht Treaty have led to a fundamental change in the nature of euro area sovereign debt as an asset class (Godley, 1992; de Grauwe, 2012). At the core of this argument is the fact that the central bank in the euro area is "doubly removed" from the reach of domestic economic policy-makers in the participating EU Member States. First, the "monetary constitution" of the euro area puts control of the money creation process beyond the reach of politics through the central bank's Treaty-guaranteed independence. Second, that power is also shifted to the supranational level, meaning that the monetary authority of any given euro area country is not part of a system of public policy institutions anchored in national traditions, in the same way that the Bank of England or the Federal Reserve are embedded in the British or American national political systems, respectively. This means that, whereas - in extremis - a "national" central bank may be expected by market participants to purchase its national government's debt on primary markets, the supranational ECB cannot be expected to do the same and is indeed prohibited from doing so under Article 123 of the Treaty itself, which is referred to as the "monetary financing prohibition" (see Yiangou et al., 2013). Consequently, euro area countries are more exposed to the risk of self-fulfilling crises whereby investors generate a liquidity crisis that can degenerate into a solvency crisis or "Bad Equilibrium" (de Grauwe, 2011). In this inherently more unstable context, blunt statements on fiscal policy by politicians can have a disproportionate impact on market sentiment, thereby triggering vicious downward spirals. By contrast, in the United States, the prolonged political stalemate over the "fiscal cliff" did not lead to any significant increase in investor risk aversion towards US debt, although this can be partially explained by the US dollar being a global reserve currency. Similarly, the dire fiscal outlook for the United Kingdom in recent years has not had a noticeable impact on the yields of UK debt. While there are a variety of underlying reasons for the situations in the United States and United Kingdom, this evidence still lends support to the argument about the specificity of the euro area context.

Second, the institutional construction of the euro area is characterised by a mismatch between the degree of interdependency achieved through monetary union and the level of economic, financial and political integration reached so far. The key political choice made in Maastricht in 1991 was to design EMU in a fundamentally asymmetric way: the Maastricht Treaty centralised monetary and exchange rate policies, but left fiscal and structural policies in the hands of national policy-makers, while making them subject to rules-based coordination procedures (ECB, 2001). Each country was to "keep its house in order" as outlined by the rules laid down in the Stability and Growth Pact. As a result, the single currency is accompanied by 17 economic policies, which are conducted by 17 national governments, debated and approved by 17 national parliaments, and discussed in 17 national media. Although economic policy measures taken by one individual country have obvious spillover effects on the other members of the euro area, to date there has been little in-depth

political cross-country debate over national economic policy-making. The crisis has started to alter this situation. For example, given the amounts of German taxpayers' money directly at stake via the various European rescue mechanisms, the Bundestag held for the first time in-depth debates about necessary structural reforms in Greece (or rather the lack thereof). Issues such as retirement age or public sector management and tax administration, which had so far only been discussed in technical committees such as the EU Economic Policy Committee, even made it onto popular talk shows.

Third, EU policy-making processes are very difficult to grasp, especially for policy-makers and market participants located outside Europe. The EU's political system is complex and its "sui generis" nature makes it difficult to compare to national political systems. It is structured around multiple levels of government (i.e. European, national, regional and local) and is characterised by a "joint decision trap" (Scharpf, 1988). The number of veto players is rather high and even increased during the crisis, owing to the repeated involvement of national parliaments in EFSF and ESM-related decisions, as well as in the ratification of the fiscal compact. The dual European executive – with the European Commission responsible for some aspects of public policy and national governments collectively in the EU Council responsible for other aspects - still suffers from a lack of external visibility compared with national politicians. The allocation of competences between the various Presidents – be that of the European Commission, the Eurogroup or the European Council – who attend in various compositions as EU or euro area representatives the different international meetings - is not well understood by Europe's external counterparts (Glöckler and Truchlewski, 2011). This institutional complexity makes it particularly difficult for market participants to weigh accurately the importance of statements by European politicians and results, leading, for example, to a lack of differentiation between communication by high-profile European policy-makers and national regional politicians. The very concept of a joint exercise of shared sovereignty – which is a hallmark of the European integration process – is not always well understood by markets: even the relatively more influential national policy-makers are constrained in their autonomous capacity of action by the rules, procedures and conventions of EU policy-making, while at the same time, the real impact of supranational policy-makers is tightly circumscribed by the allocation of competencies as laid down in the Treaties.

These three structural features provide the economic and political context for political communication in Europe. They help to explain why political communication is more complex and difficult in the European environment. The potential for miscommunication is structurally higher in EMU than in other (nation-based) currency unions.

4.2 THE ADDITIONAL CHALLENGES POSED BY THE SOVEREIGN DEBT CRISIS

These difficulties were exacerbated by the sovereign debt crisis. Passing on consistent messages across time, countries and media outlets – which is a crucial component of effective communication – has become more difficult during the crisis owing to the multiplicity of audiences. One and the same message has been received very differently by different audiences, which could not be separated very easily (Asmussen, 2012). The variety of target audiences can be broken down into three groups: (i) market communication versus political communication; (ii) communication to insiders' circle versus communication to the broad public; and (iii) communication to 17 national audiences.

First, policy-makers have been faced with a "potentially explosive interplay between markets and politics" (Asmussen, 2012). Messages that were required and legitimate in public debates were completely unsuited for market communication and unsettled financial markets. For example, in a number of countries, a debate had been raging about whether the private sector or euro area

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taxpayers should be involved in any rescue operation for countries in financial difficulty. The arguments centre around core concerns about moral hazard: bond investors will price risk appropriately only if they realistically face a danger of default. Governments will run sound fiscal policies only if they know that they are not going to be bailed out by the euro area and that they might face higher financing costs. This debate about incentives and principles is a fully legitimate one in open democratic societies. However, it has sent a possibly destabilising message to potential investors in the bonds issued by troubled countries, namely that those bonds are not safe assets because the probability of a complete redemption was seen as reduced, and this with a perceived (semi-)official sanction. Investors have therefore demanded a large risk premium. This, in turn, may have contributed further to the fiscal problems in the peripheral euro area countries over the past two years. Policy-makers are therefore confronted with a certain trade-off between conducting open democratic debates and respecting the needs of the financial markets, reflected by the controversy over the notion of a "democracy in conformity with market needs" ("parlamentarische Mitbestimmung [ist] so zu gestalten, dass sie marktkonform ist", Merkel, 2011). In Germany, this controversy over due parliamentary process (involvement of Committees, timelines to allow for proper scrutiny of measures, etc.) as opposed to the need for swift action, as required by financial stability and financial market considerations, even reached the Federal Constitutional Court (Bundesverfassungsgericht, 2011).

Second, European politicians have faced the challenging task of communicating to audiences with very heterogeneous levels of knowledge. Until recently, communication on economic and financial issues had been mainly targeted at an insiders' community composed of market participants, specialised financial media and interested academic circles (Asmussen, 2012). They would, for example pay attention to semantic details such as the order of the words or single adjectives in the Introductory Statements of the ECB President following the press conferences of the Governing Council (see, inter alia, Jansen and de Haan, 2010). During the crisis, "normal" citizens started to show an increased interest in economic policy-making, not least given the large amounts of taxpayers' money at stake. The demand for transparency and more "educational" explanations – even on highly technical topics – has increased dramatically.

Policy-makers need to strike a balance between further communicating to the specific target audience – which requires very careful and accurate wording – and reaching out to the general public – which necessarily implies some simplification given the technicality of the issues discussed (Glöckler, 2012).

Third, European policy-makers have had to navigate between 17 different national audiences. It implies communicating in a multilingual and multicultural context. One and the same message, even if translated perfectly into the 23 official languages of the EU, may cause very different public and market reactions (Asmussen, 2012). Moreover, depending on the political climate and the proximity to elections in individual countries, communication can have an unexpected and heterogeneous impact. This is exacerbated by the emergence of a pronounced North-South divide along the lines of creditor and borrower countries. Any decision taken at the European level – even when serving the interests of the euro area as a whole – is increasingly interpreted as being part of a "zero-sum-game" with "winners" and "losers". Communication events on pan-European platforms, such as hearings before the European Parliament, still have a rather limited media impact. National politicians hardly comment on European decisions in the European public arena. Rather, they target their national audiences in press conferences following important summits, explaining why the deal is beneficial for their own country. This, in turn, can be exploited by politicians of other countries to serve (partly nationalistic) arguments. This lack of political cohesion within the euro area only contributes to unsettling markets further.

CONCLUSIONS

The empirical analysis of this study is necessarily restricted in its time frame (34 months) and geographical scope (yields of three programme countries; limited number of EU/national politicians). The choice of one specific way to measure communication (classification approach) and the focus on public pronouncements dedicated to fiscal policy are further limitations of a necessarily partial analysis. That said, the findings do shed some light on certain relationships between political communication and sovereign bond yields, which this study has attempted to account for. They may therefore allow for certain conclusions and, in a second step, lead to the identification of avenues to render communication policy more effective, in the form of procedural and institutional adaptations.

FIRST AVENUE: "CONSTRUCTIVE COMMUNICATION"

This study does not find any strong empirical evidence that the *amount* of political communication has an impact on the level of government bond yields. Rather, our finding is that the connotation of the communication determines the type of impact on government bond yields: positive communication can lead to a compression of spreads, whereas negative communication can cause a widening of spreads.

The reassuring lesson from this finding is that policy-makers can speak to the extent they wish. The intensity of political communication does not have to be subordinated to the alleged necessities of sovereign debt markets. However, communication policy would be more effective if certain principles were respected in the design and implementation of politicians' communication strategies. If they go public with their statements about the fiscal or general economic situation of a problem country, any critical remarks (e.g. "Greece-bashing") are particularly powerful in their impact on the markets. Repeated negative public statements may tend to reinforce market consensus views of the unsustainable or difficult outlook for the countries concerned, which may in turn worsen their financing conditions and fiscal sustainability, thereby creating a self-fulfilling prophecy.

In practical terms, a possible avenue to render communication more effective in response to this finding would be to calibrate the policy message carefully, so as to avoid pouring oil onto the fire. This holds true in particular for the choice of words. For example, rather than "warning of a high risk of failure" (i.e. two negative words), it seems more effective to make statements such as "a rigorous implementation of the programme is a crucial condition for the success of the programme" (i.e. two positive words). While the message is on substance very similar, our empirical analysis shows that the market perception and market impact of the two statements differs markedly. It is in all national policy-makers' enlightened self-interest to avoid worsening market perception through overly negative public comments. This recommendation is reinforced by the negative selection bias in the media, along the lines of "only bad news is good news" (see Bohle, 1986), which may in any case make it more difficult for policy-makers to "get through" with a more balanced and differentiated message.

SECOND AVENUE: "CONSISTENT COMMUNICATION"

A further empirical finding of this paper is that negative communication has a proportionally larger impact on spreads than positive communication. All other things being equal, the increasing effects of negative communication on spreads outweigh the dampening effects of positive communication.

This means that the efforts to use "constructive communication" – as outlined above – may be rapidly annihilated by the blunt statements of less careful policy-makers.

Ensuring that consistent messages are passed across time, countries and media outlets is thus of crucial importance. "Single voice" communication could have a calming effect on markets. As a concrete and practical avenue to render communication more effective, a more ample and disciplined use of Terms of Reference could be agreed in the Eurogroup. This could allow for the exercising of peer pressure in favour of verbal discipline and a decrease in the number of comments that have the potential to exacerbate market tensions. Given that untimely and unbalanced communication can have real and tangible effects on the borrowing costs of countries, both "creditor" and "borrower" countries would have incentives to ensure the implementation of a consistent communication strategy with constructive messages.

5.3 THIRD AVENUE: "GREATER IMPACT OF COMMUNICATION BY 'FULL-TIME' EUROPEANS"

The findings of the analysis are clear regarding the impact on the markets of the identity of the speaker. Political communication from supranational institutions – notably the Commission, the Eurogroup or the Presidency of the European Council – is more even-handed and, on balance, more positive. As non-directly elected representatives of common and – at least in the national political perception – remote institutions, they are less prone to engage in the blame game which, in a national context, lends itself easily to political point-scoring. Ex officio, the "full-time" Europeans are there to search for common solutions, which gives them a forward-looking focus – i.e. what is needed to succeed in the future ("need to implement all measures") – and less of a focus on the failings of the past in problem countries.

This forward-looking focus and slightly positive bias of EU speakers means that, in politically or financially delicate circumstances (e.g. important bond auction, negotiation of an EU-IMF financial assistance programme), it would be helpful if their communication were presented more effectively, so that it becomes more noticeable to markets and the public alike.

5.4 CONCLUDING REFLECTIONS

This study does not claim that political miscommunication caused the sovereign debt crisis in the euro area. It merely points out that, at several points during the crisis, certain types of political communication may have added uncertainty rather than certainty to market perceptions about the sovereign debt crisis in the euro area, and that unconstructive and inconsistent communication can have real and tangible effects on countries, their financing conditions, and by extension, on their populations, as well as on the cohesion of the euro area. A carefully designed communication strategy is therefore warranted to minimise the financial impact of political announcements on sovereign bond yields. At the same time, care should be taken not to subordinate open political discourse to the alleged necessities of sovereign debt markets. An Orwellian "1984-style Big Brother" communication and a muffled political discourse for the sake of bond market effects are not acceptable in liberal democracies with open societies.

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ANNEX

Data variables			
Variable types	Frequency	Source	Remarks/transformation
Communication			
Real time information	Daily	Bloomberg, Dow Jones	Marking and word count, sum,
		News Wire, Market News	difference, ratio, log-ratio
		International, Reuters	
Financial			
Sovereign bond yield	Daily	Datastream	Spread to DE (10-year)
VIX index	Daily	Datastream	
Economic			
GDP	Quarterly	Bloomberg	Daily transformation by day of statistical release
Business sentiment	Monthly	Datastream	Daily transformation by day of statistical release
Unemployment rate	Monthly	Datastream	Daily transformation by day of statistical release
Consumer prices	Monthly	Datastream	Daily transformation by day of statistical release
Current account	Quarterly	Datastream	Daily transformation by day of statistical release
Other			
Credit Ratings	Infrequent	S&P, Fitch, Moody's	Daily transformation + dummy transformation
Political events	Infrequent	EU institutions, national official sources	Daily transformation, 0-1 dummy variable

