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Cabinet Instability and Political Polarisation in Italy (1994-2019). A Textual Analysis of the Parliamentary Debates

Instabilità di governo e polarizzazione politica in Italia (1994-2019). Un'analisi testuale dei dibattiti parlamentari

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Abstract

This paper investigates the effects of political polarisation on cabinet stability in Italy. The research, which extends, looking at a Mediterranean country, the relevant literature that has so far focused on Anglo-Saxon countries, introduces a new estimator of polarisation based on machine learning methods of text analysis. Using the unsupervised algorithm Wordfish (Slapin and Proksch 2008), political actors are scaled along the ideological spectrum, through the analysis of speeches held during parliamentary debates. The relative distances between them are computed, to construct an index of political polarisation meant to capture the level of political conflict between the Government and the Parliament. The paper employs data on the Italian governments that took office between 1994 and 2019, to estimate the correlation between polarisation, as measured by this index, and the duration of a government's mandate. The paper finds evidence of a negative correlation between polarisation and government survival, statistically significant at the 10% significance level.

Questo articolo guarda ai possibili effetti della polarizzazione politica sull'instabilità di governo in Italia. La ricerca, che estende, guardando ad un paese mediterraneo, l'esistente letteratura concentratasi perlopiù su paesi anglosassoni, introduce un nuovo indicatore di polarizzazione costruito attraverso metodi di analisi testuale basati sull'apprendimento automatico (*machine learning*). Usando l'algoritmo non supervisionato *Wordfish* (Slapin e Proksch 2008), gli attori politici vengono posizionati lungo lo spettro ideologico, attraverso l'analisi di discorsi tenuti durante dibattiti parlamentari. Le relative distanze tra gli stessi vengono poi misurate, per costruire un indice di polarizzazione politica volto a cogliere il livello di conflitto tra il Governo e il Parlamento. L'articolo utilizza dati sui governi insediatisi tra il 1994 e il 2019, per stimare il grado di correlazione tra la polarizzazione, misurata dall'indice, e la durata del mandato di un governo. L'articolo trova evidenza di una correlazione negativa tra polarizzazione e durata del mandato governativo, statisticamente significativa al 10%.

Keywords

Political Polarisation, Italian Politics, Cabinet Instability, Machine Learning, Text Analysis
Polarizzazione politica, politica italiana, instabilità di governo, apprendimento automatico, analisi testuale

Introduction

Since Downs (1957) introduced, in his *spatial model of elections*, the idea of a space in which it was possible to plot different ideologies and policy positions, political economists have been extensively exploring the concept of political polarisation, a measure of the distance between political actors of any given polity along the ideological spectrum (Sartori 1976).

Political polarisation is also the main focus of this paper, which investigates its role as one of the determinants of political dysfunction in Italy, that finds its most prominent symptom in acute cabinet instability (Spotts and Wieser 1986). In fact, Italy's post-WW2 governments (which have now reached, including the incumbent, the extraordinary number of 67) have been the object of great interest in the field of political science (Curini and Pinto 2017). Furthermore, Italy's political instability represents an aggravating factor in its already struggling economic performance: with one of the highest debt-to-GDP ratios in the world and a tendency among its politicians to run large fiscal deficits, the country has often seen interest rates on its government bonds jump to worrying levels, and issues of political credibility can only further weaken its position with creditors. For this reason, understanding the dynamics behind this phenomenon is important for several players, including foreign investors and European institutions.

In his study of government survival in parliamentary democracies, Warwick (1992) identifies polarisation as one of the determinants of cabinet instability. Following his approach, this paper looks at the correlation between the level of polarisation and the length of a government's effective mandate. However, while Warwick (1992) referred to polarisation as it was previously defined by Powell (1982), namely as the proportion of seats held by extremist parties, this paper introduces a new index of political polarisation, specially designed to measure the level of conflict between the Government and the Parliament, on whose confidence the mandate of the first relies. The index uses estimates based on a textual analysis of parliamentary speeches, which represents the focus of the first part of this research paper. The results show evidence of a negative correlation between polarisation and the duration of a government's mandate, supporting therefore the hypothesis based on Warwick (1992).

The paper proceeds as follows. First, a summary of the relevant literature on political polarisation and methods of textual analysis of political documents is presented. Then, the data on the parliamentary speeches used in the textual analysis are described. Following this, the methodology applied for the analysis of the parliamentary speeches is explained and the new index of political polarisation is introduced, along with its level of correlation with government survival. Finally, some concluding remarks are made.

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Political Polarisation: Determinants, Trends and Methods of Estimation

Extensive research has been conducted on political polarisation, which has been studied at different levels in society. One strand of this literature focuses on *mass polarisation*, a measure of how the electorate is distributed along the ideological spectrum (Carmines, Ensley and Wagner 2012). Scholars have explored this relationship with different variables: for instance, Draca and Schwarz (2018) examine the degree of polarisation among citizens of different countries analysing their responses to the cross-country World Values Survey, while Boxell, Gentzkow and Shapiro (2017) investigate the relationship between polarisation and internet use and Duclos, Esteban and Ray (2004) between polarisation and income distribution.

Another strand of the literature focuses instead on *elite polarisation*, namely the ideological distance between the party (or parties) in government and the one(s) in opposition (Baldassarri and Gelman 2008). Gentzkow, Shapiro and Taddy (2019) have estimated the level of *partisanship* in the US Congress, finding an upward trend starting in the mid-1990s. This distance between the members of the ruling class can have disruptive effects on the performance of a country: besides cabinet instability (Warwick 1992) and inefficiency of the legislative bodies (Jones 2001), polarisation also introduces uncertainty about economic policy (Azzimonti 2013). The concept of political polarisation, however, is itself very broad and different authors (e.g. Esteban and Ray 1994) have proposed their own ways of measuring it. While some concentrate on the role of extremist parties (Powell 1982), others refer to polarisation as the maximal ideological distance between parties (Mair 2003; Sørensen 2014; Best and Dow 2015). Schmitt (2016) counts 210 different estimators of polarisation and this paper introduces a new one.

All estimators, in any case, require the researcher first to place the different political actors on the ideological spectrum, inferring what their political positions are, so that they can then measure the relative distances between them. Traditionally, such political positions were estimated looking at roll-call votes. Analysing legislators' decisions on the occasion of such votes allowed researchers to gain a sense of the evolution of the political space and predict future legislative behaviour. However, this method, which has been used mainly in studies of the US Congress (Poole and Rosenthal, 1985; 2000; Clinton, Jackman and Rivers 2004), is not able to capture specific dynamics, like strategic voting, that characterise many parliamentary systems such as those in Britain (Spirling and McLean 2007; Hix and Noury 2010) or Italy.

Another insightful approach consists of looking at campaign finance data to infer the political positions of different candidates and contributors (Bonica 2014) and to predict legislators' voting behaviour (Bonica 2018). Nevertheless, this strategy cannot be applied in every context, given that the degree of transparency on party funding

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varies across countries and this might result, in some cases, in insufficiency of data. For this reason, several scholars have chosen to follow an approach that can, instead, be applied to the study of political polarisation in any given country: quantitative analysis of political texts. The following section compares different methods that over the years have been utilised to analyse political documents.

Textual Analysis of Political Documents

Quantitative studies of political texts started with the analysis of electoral manifestos. Researchers from the Manifesto Project (Budge, Derek, Robertson, Hearl et al. 1987; Budge et al. 2001) have coded by hand party manifestos from different countries and time periods, creating large sets of data that show how the ideological distance between competing parties has changed over time.

The problem with hand coding, however, is that it is prone to errors and subjective judgments made by the researcher, which make it not fully reliable. For this reason, procedures of text analysis are now increasingly relying on machine learning, since different statistical models have been implemented into powerful algorithms capable of analysing large samples of textual data (Gentzkow, Kelly and Taddy 2019). Many of these tools have proved useful, in particular, for the study of political documents (Grimmer and Stewart 2013): machine learning massively reduces the cost of analysing textual data, opening up a wide range of procedures of classification, through methods like *Latent Dirichlet Allocation* (Blei et al. 2013), or ideological scaling. The latter, in particular, is useful to measure polarisation and different scholars have designed both supervised (Laver, Benoit and Garry 2003) and unsupervised (Monroe and Maeda 2004; Slapin and Proksch 2008) methods for scaling political actors measuring latent features in texts.

The presence of these algorithms capable of analysing large amounts of text and the increasing availability of digitised parliamentary records has shifted the attention of political economists directly onto parliamentary debates, rather than party manifestos. While manifestos present the stances of a party only at the moment of an election, looking at discussions in parliament can show how the political position of a party varies over time within one specific legislature or even how members of the same party differ ideologically from each other. Obtaining positions for legislators thus allows scholars to measure emotion (Rheault, Beelen, Cochrane and Hirst 2016) and polarisation right inside the parliamentary arena.

Research on polarisation, based on these methods of text analysis, has been conducted for different countries' parliaments, like the UK House of Commons (Peterson and Spirling 2018; Goet 2019), the Irish Dáil (Laver and Benoit 2002;

Lauderdale and Herzog 2016) and the US Congress (Gentzkow, Shapiro and Taddy 2019; Jensen et al. 2012). No research of this kind has yet looked at Mediterranean countries and this paper aims to extend this strand of literature into this area, providing a study of the effects of polarisation in Italy based on the analysis of speeches from the Chamber of Deputies.

Textual Data: Parliamentary Speeches

The research is aimed at the construction of a polarisation index, based on the analysis of parliamentary speeches taken from the records of the Italian Chamber of Deputies.[1] In particular, this paper employs the speeches delivered by heads of governments and MPs from different parties on the occasion of the votes of investiture of 16 governments, covering a time frame that goes from 1994 to 2019.

According to Italy's constitutional stipulations, after being appointed by the President of the Republic, the President of the Council of Ministers (from now on, Prime Minister)[2] presents the political platform of the Government to the two houses of the Parliament, the Chamber of Deputies and the Senate of the Republic, to undergo a vote of confidence. Each party then identifies an official representative from among its MPs, who delivers a speech that formally declares whether their parliamentary group intends to grant the confidence to the Government.

The paper uses only the speeches from the Chamber of Deputies, the lower house, as the author finds this to be more representative of the whole Italian electorate: to elect senators, in fact, voting rights are reserved to citizens older than 25 years of age. In particular, the paper specifically employs the speeches from the votes of investiture because these are expected to represent a comprehensive summary of the political positions of parties and governments on different issues. This same approach is followed by Ieraci (2006; 2008; 2019)[3] and Ieraci and Pericolo (2021); analogously, Laver and Benoit (2002) look at the confidence debate held in October 1991 in the Irish Dáil.

The average length of the speeches is 8918 characters.[4] This average, however, is distorted by the Prime Ministers' speeches, which tend to be much longer than the

[1] https://storia.camera.it/lavori#nav.

[2] Note that the use of the term "Prime Minister", although frequently used even by Italian journalists, is improper to refer to the head of the Italian Government, given that the Italian *Presidente del Consiglio dei Ministri* has different constitutional prerogatives from a Prime Minister. This paper employs this expression just for the sake of brevity.

[3] I am grateful to Prof. Ieraci for the clarifications on his work that he has personally provided to me.

[4] Approximately equal to 4459 words.

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MPs' declarations of vote. Removing the Prime Ministers' speeches, the average length is 6593 characters.[5] Over a total of 16 debates, the average number of speeches for each debate is 13.

Text Analysis: Ideological Scaling with *Wordfish*

To construct a measure of polarisation, political actors first have to be placed on an ideological spectrum, so that the relative distances between them can be estimated. I used the *Wordfish* algorithm (Slapin and Proksch 2008) to estimate the spatial location of Prime Ministers and parties (represented by their designated speakers for the confidence debates). Wordfish is based on a scaling approach to estimate party positions from political texts, inferring a party's position in a policy space from its relative word usage. This represents an unsupervised method of scaling, meaning that, unlike supervised methods like the *Wordscore* algorithm (Laver, Benoit and Garry 2003), it does not need *reference* texts that define the political positions in the space; Wordfish, instead, autonomously *discovers* words that distinguish locations on a unidimensional political spectrum.

The method, entirely based on word frequency, assumes that each word *j* from individual *i*, W_{ij} is drawn from a Poisson distribution with rate $\lambda_{ij}, W_{ij} \sim Poisson(\lambda_{ij})$. λ_{ij} is modelled as a function of individual *i*'s loquaciousness (α_i), the frequency with which word *j* is used (ψ_j), the extent to which a word discriminates the underlying ideological space (β_j), and the politician's underlying position (θ_i) (Grimmer and Stewart 2013):

$$\lambda_{ij} = \exp\left(\alpha_i + \psi_j + \beta_j \times \theta_i\right)$$

Hence, while α_i and ψ_j are fixed effects, which account respectively for the length of each document and the frequency of each word, β_j and θ_i are actual scores that distinguish words and documents – hence, politicians – on the ideological dimension that the algorithm has estimated. In particular, the parameter of interest for this research is θ_i, as it is what distinguishes the Prime Ministers and the parties on the ideological spectrum.

The model was run 16 times, once for each confidence debate. Each time, the algorithm was fed with a *Document-Term-Matrix*, a matrix in which each row represents a document – hence, one of the speakers that took the floor in that debate – and each

[5] Approximately equal to 3297 words.

column a specific word. Therefore, the numbers in each cell represent the number of times that a given speaker used a specific word. An example of Document-Term-Matrix is shown in Figure 1.[6]

FIGURE 1- Example of Document-Term-Matrix

	signor	president	gentil	deput	prim	avvi	comun	quest	aul	concedetem
PM	1	6	2	3	12	13	14	7	5	1
+EU	0	4	0	0	1	0	0	2	2	0
CP	0	3	0	0	0	0	0	1	1	0
SVP	2	3	1	2	2	0	0	0	0	0
NcI	3	3	0	0	1	0	0	0	0	0
LeU	6	10	0	2	6	0	1	1	1	0
FdI	1	12	0	0	3	0	0	3	3	0
FI	0	8	0	0	3	0	1	0	0	0
PD	7	10	0	0	6	0	4	1	2	0
Lega	1	17	0	0	6	1	0	1	1	0
M5S	0	11	0	0	1	1	0	1	1	0

Before creating the matrices, the documents were pre-processed, undergoing a series of steps that cleaned the texts of irrelevant objects. After punctuation and *stopwords* – words like prepositions and conjunctions that add no relevant meaning to the text – were removed, each word was reduced to its stem, to avoid words with basically the same meaning being unnecessarily counted as different.

The output that the algorithm returned is presented in Figure 2, which shows, as an example, Wordfish estimates for the Dini (1995) and D'Alema II (1999) Governments' confidence debates. Each document's θ_i is plotted on a unidimensional scale, with a 95% confidence interval. The length of each document should not affect the scores, given that the α_i parameter controls for that, but the confidence intervals get narrower as more unique words – hence, more data for estimating party positions – are used in the document.

[6] Note that the figure includes just an excerpt of the matrix, which is actually much more extensive, including thousands of columns.

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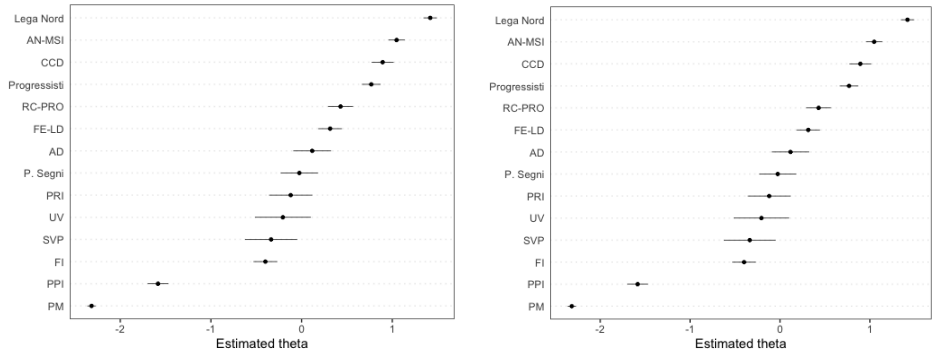
Figure 2 – Wordfish Output for Dini (1995) and D'Alema II (1999)



One possible issue with algorithms like Wordfish is that the lack of supervision entails that the model's estimates will be based entirely on the primary variation in language across speakers, which might actually be ideological or, instead, driven by other factors like the tone or the style used. For example, we could apply the scaling algorithm even to documents such as cookbook recipes, and Wordfish would place them – based on the word frequencies – on a single dimension, but obviously the nature of this dimension would not be ideological (Slapin and Proksch 2009). Therefore, the researcher should not assume that the output measures an ideological location, without carefully validating that the ideological dominance assumption actually fits the data (Grimmer and Stewart 2013).

Looking at the 16 plots (see Appendix), different patterns emerge that help to understand whether this assumption holds. First, it can be seen that, for each confidence debate, the Prime Minister tends to occupy a position at the lower end of the spectrum. Being Wordfish an unsupervised algorithm, one cannot be sure of why this happens, but can make a reasonable hypothesis on it. When using supervised algorithms such as Wordscore (Laver, Benoit and Garry 2003), it is the researcher that provides reference texts that define the extremes of the ideological scale (saying, for example, that a given text represents the "extreme left" and another one the "extreme right"); on the other hand, as mentioned above, adopting an unsupervised method implies that it is the algorithm itself that creates its reference system, solely based on the information provided in the documents (i.e., on the word usage). Then, one reasonable explanation of why the Prime Minister is always placed by Wordfish at the lower end of the spectrum could be that his speech is setting out a given political agenda, while all the other speeches simply represent a response to this agenda that has been presented to the

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Parliament. Based on this aspect, the algorithm takes the Prime Minister's speech as a reference and designs an appropriate ideological spectrum along which it scales the different documents.

A second pattern that emerges is consistent with what was just described and provides a good interpretation of what actually is the dimension that the algorithm is capturing from the documents provided to it. It can be noted, in fact, that parties that support the Government tend to occupy a closer position to that of the Prime Minister, compared to parties in opposition. Therefore, the algorithm seems to capture a "pro- versus anti-government dimension" – as in Laver and Benoit (2002). Wordfish takes the Prime Minister's speech as a reference to define the ideological spectrum and places texts as closer to it as more similar they are with it. As a consequence, the speeches of MPs declaring their support to the government will – at least on average, although with some exceptions – have a lower ideological score (θ_i) than those of opposition MPs, given that, as said above, the Prime Minister occupies a position at the lower end of the spectrum.

To verify this and validate the proposed interpretation of the ideological dimension captured by Wordfish, I constructed a dummy variable for parties supporting the Government and regressed the parties' positions on it. Table 1 gives an overview of the characteristics of party representatives' speeches (hence, Prime Ministers' speeches are not considered here). Results shown in Table 2 confirm the hypothesis. The coefficient – highly significant – on *Confidence* is negative, implying therefore that the speeches of MPs supporting the government are in general placed closer to the Prime Minister's speech on the ideological spectrum. In addition, the results confirm that the parameter is effectively controlling for the length of the document, which appears to have no effect on the scores at all.

Table 1 – Summary Statistics: Characteristics of MPs' speeches

Variable	Observations	Mean	Std. Dev.	Minimum	Maximum
Confidence	197	0.55	0.50	0	1
Text Length	197	6593.41	3107.75	1252	142529
Wordfish Score (θ)	197	0.14	0.85	-2.29	1.65

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Table 2 – Software Validation: Determinants of Wordfish estimates

	(1)	(2)
(Intercept)	0.559***	0.307**
	(0.081)	(0.152)
Confidence	-0.750***	-0.707***
	(0.109)	(0.110)
Text Length		0.000*
		(0.000)
Observations	197	197
R^2	0.196	0.211

*** p <0.01; ** p <0.05; * p <0.1.

Index of Political Polarisation and Correlation with Government Survival

Having placed the different political actors on the ideological spectrum, polarisation can then be measured at the debate-level (hence, for each of the 16 governments under analysis). In particular, since – as said above – it seems that the policy space estimated by Wordfish captures politicians' level of support for the Government, a new index of political polarisation is designed to measure the degree of ideological conflict between Government and Parliament. Being Italy a parliamentary republic, the mandate of the Executive relies on the confidence of the Legislature: hence, the higher the degree of ideological conflict between the two political bodies, the less stable the Government should be.

Polarisation is therefore measured as the sum of the relative distances on the ideological scale designed by Wordfish between each party and the Prime Minister's estimated position:

$$Pol_i = \sum_{p=1}^{N} (\theta_p - \theta_{PM})$$

where the subscript *i* indicates each debate, *p* and *PM* the parties and the Prime Minister taking the floor during that debate and *N* the total number of parties for that debate.

Note that, although cabinet stability ultimately depends on the support of parties in the majority, the indicator considers also the distances between the Prime Minister and opposition parties. In fact, the opposition still plays a relevant role in obstructing

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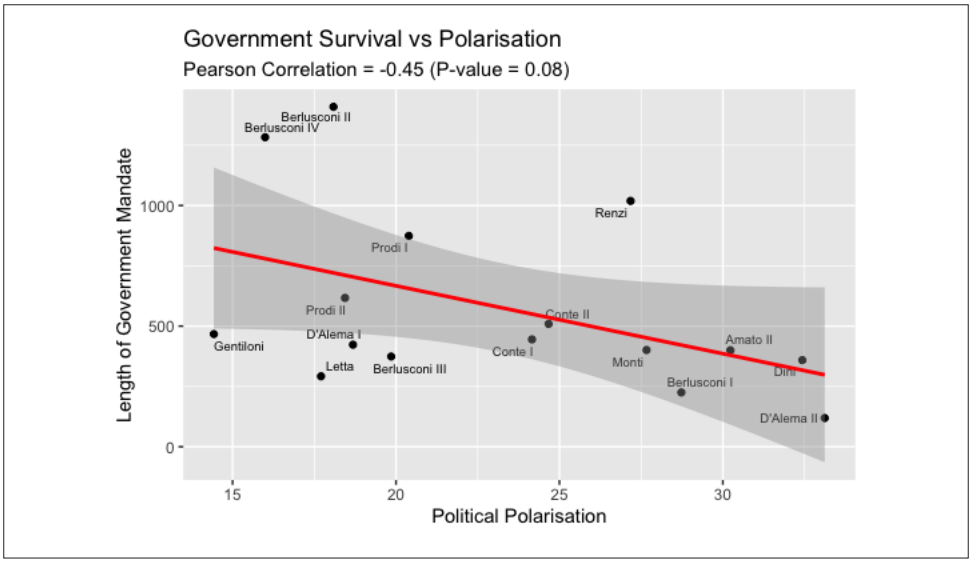
government action (for example, through the presentation of amendments during the legislative process), in a way that can ultimately lead to the fall of the Government, and for this reason the index considers also a tougher and more vocal opposition as a cause of higher polarisation.

For the 16 governments taken into consideration, polarisation (as measured by this new estimator) varies between a minimum of 14 points and a maximum of 33, with a mean of 23 (the Appendix presents the level of polarisation for each government).

In order to confirm the hypothesis that higher political polarisation is associated to cabinet instability, I have measured the Pearson correlation between polarisation and the length of a government's mandate, measured in days. Figure 3 shows the scatterplot illustrating this correlation, along with the best fit of a linear model of the relation between the two variables. The correlation is negative and significant at the 10% significance level. Not only this validates the research hypothesis, but also ultimately shows that the index provides a meaningful and reliable interpretation of political polarisation, which will surely prove useful for future research on the role of political language and sentiment.

FIGURE 3 – Correlation between political polarisation and the length of a government's mandate



Conclusion

To conclude, this paper provides evidence of a negative correlation between political polarisation and cabinet stability. The main innovation introduced by this research, however, resides precisely in how the degree of polarisation is measured.

A new framework for the study of political polarisation is introduced, which captures a critical dynamic that seems to underlie parliamentary systems. While most estimators of polarisation used so far in the literature focus on the role of political parties and their platforms, as presented in their manifestos, the index introduced in this paper looks directly at the interaction between two institutional bodies, the Government and the Parliament. In particular, it does this by focusing on the language used by politicians themselves in institutional arenas, introducing new possible uses of unsupervised methods of text analysis. In fact, the paper shows that the Wordfish algorithm, which previously had been used mainly for time-series analysis of party systems (Slapin and Proksch 2008), can be useful also in different types of studies, particularly in the creation of variables of interest such as this new polarisation index.

Finally, machine learning methods of text analysis had been used so far only for the study of Anglo-Saxon countries and this paper extends the literature, opening up the research on Mediterranean nations: future works might use the methods presented in this paper to study countries like Spain, which present an institutional structure similar to Italy. Also, further research could extend the analysis of this paper to all governments in Italy's republican history, to confirm the findings here presented and provide further insights on the country, a key player on the European and global stage.

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Appendix: Summary of Confidence Debates

This appendix presents a summary of the confidence debates for each of the 16 governments included in the analysis. In particular, for each government, the appendix shows the level of polarisation as estimated by the index, the length in days of the effective mandate, the plots of the Wordfish output, and a legend for the acronyms of the different parliamentary groups represented by the speakers.

Note that, among the many speeches held during confidence debates, only those of the designated main speaker for each parliamentary group (or sub-component of the mixed parliamentary group) have been included in the analysis.

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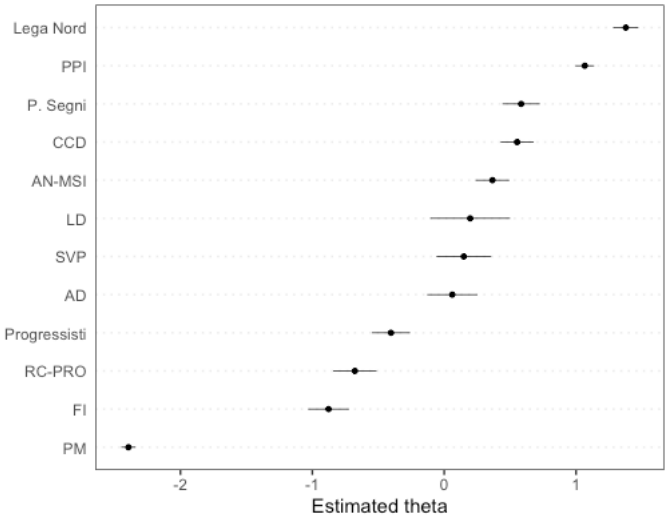
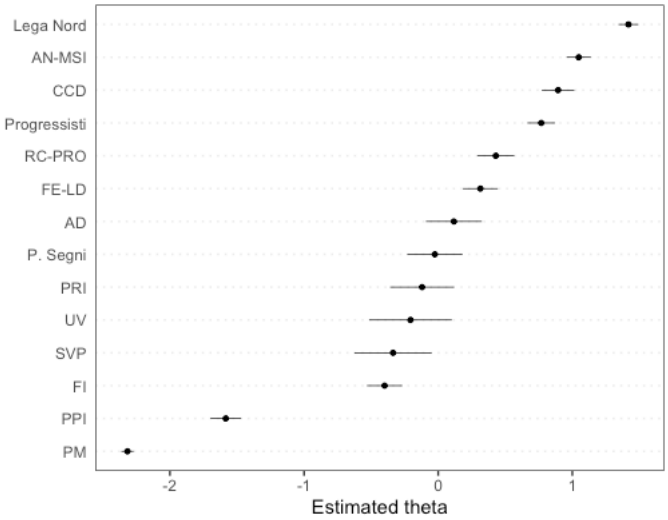
1. Berlusconi I (1994): $Pol = 28.73, Length = 225$



PARTY ACRONYMS	
PM	Prime Minister
Lega Nord	Lega Nord
PPI	Partito Popolare Italiano
P. Segni	Patto Segni
CCD	Centro Cristiano Democratico
AN-MSI	Alleanza Nazionale – Movimento Sociale Italiano
LD	Liberaldemocratici
SVP	Südtiroler Volkspartei
AD	Alleanza Democratica
Progressisti	Progressisti - Federativo
RC-PRO	Rifondazione Comunista – Progressisti
FI	Forza Italia

2. Dini (1995): $Pol = 32.43, Length = 359$



PARTY ACRONYMS	
PM	Prime Minister
Lega Nord	Lega Nord
AN-MSI	Alleanza Nazionale – Movimento Sociale Italiano
CCD	Centro Cristiano Democratico
Progressisti	Progressisti – Federativo
RC-PRO	Rifondazione Comunista – Progressisti
FE-LD	Federalisti – Liberaldemocratici
AD	Alleanza Democratica
P. Segni	Patto Segni
PRI	Partito Repubblicano Italiano
UV	Unione Slovena
SVP	Südtiroler Volkspartei
FI	Forza Italia
PPI	Partito Popolare Italiano

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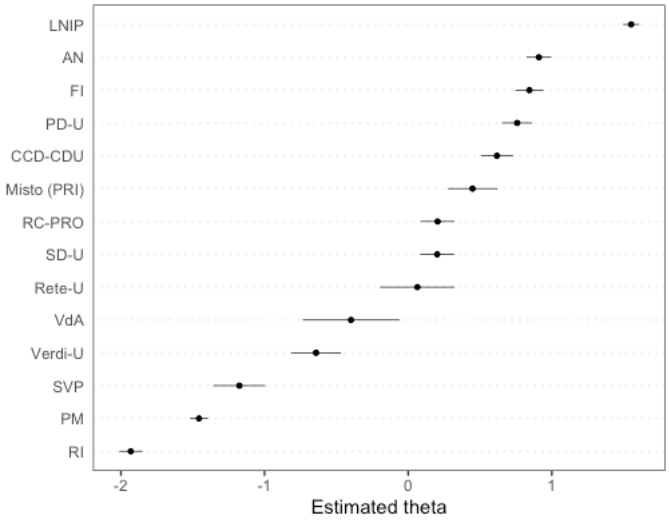
3. **Prodi I:** $Pol = 20.39, Length = 874$



PARTY ACRONYMS	
PM	Prime Minister
LNIP	Lega Nord per l'Indipendenza della Padania
AN	Alleanza Nazionale
FI	Forza Italia
PD-U	Popolari e Democratici – L'Ulivo
CCD-CDU	Centro Cristiano Democratico – Cristiani Democratici Uniti
PRI	Partito Repubblicano Italiano
RC-PRO	Rifondazione Comunista – Progressisti
SD-U	Sinistra Democratica – L'Ulivo
Rete-U	Rete – L'Ulivo
VdA	Vallée d'Aoste
Verdi-U	Verdi – L'Ulivo
SVP	Südtiroler Volkspartei
RI	Rinnovamento Italiano

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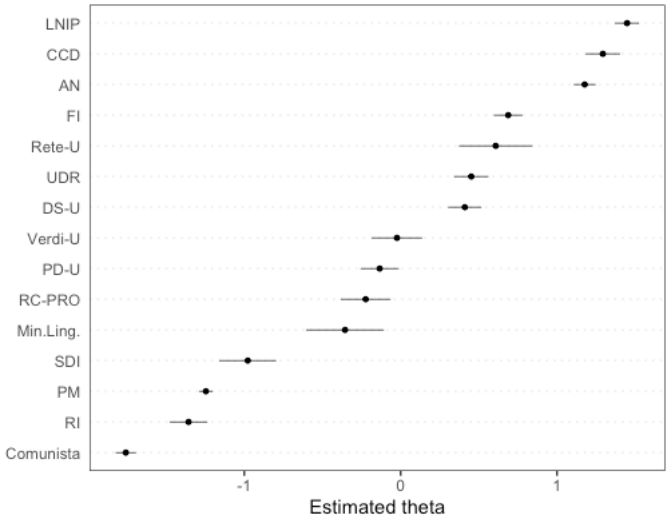
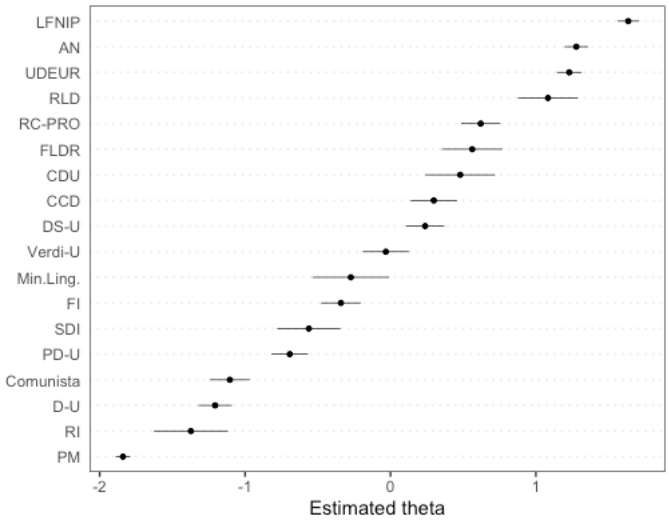
4. D'Alema I (1998): $Pol = 18.68, Length = 423$



PARTY ACRONYMS	
PM	Prime Minister
LNIP	Lega Nord per l'Indipendenza della Padania
CCD	Centro Cristiano Democratico
AN	Alleanza Nazionale
FI	Forza Italia
Rete-U	Rete – L'Ulivo
UDR	Unione Democratica per la Repubblica
DS-U	Democratici di Sinistra – L'Ulivo
Verdi-U	Verdi – L'Ulivo
PD-U	Popolari e Democratici – L'Ulivo
RC-PRO	Rifondazione Comunista – Progressisti
Min.Ling.	Minoranze Linguistiche
SDI	Socialisti Democratici Italiani
RI	Rinnovamento Italiano
Comunista	Partito dei Comunisti Italiani

5. **D'Alema II (1999):** $Pol = 33.12, Length = 119$



PARTY ACRONYMS	
PM	Prime Minister
LNIP	Lega Nord per l'Indipendenza della Padania
AN	Alleanza Nazionale
UDEUR	Unione Democratici per l'Europa
RLD	Patto Segni Riformatori Liberaldemocratici
RC-PRO	Rifondazione Comunista – Progressisti
FLDR	Federalisti Liberaldemocratici Repubblicani
CDU	Cristiani Democratici Uniti
CCD	Centro Cristiano Democratico
DS-U	Democratici di Sinistra – L'Ulivo
Verdi-U	Verdi – L'Ulivo
Min. Ling.	Minoranze Linguistiche
FI	Forza Italia
SDI	Socialisti Democratici Italiani
PD-U	Popolari e Democratici – L'Ulivo
Comunista	Partito dei Comunisti Italiani
D-U	Democratici – L'Ulivo
RI	Rinnovamento Italiano

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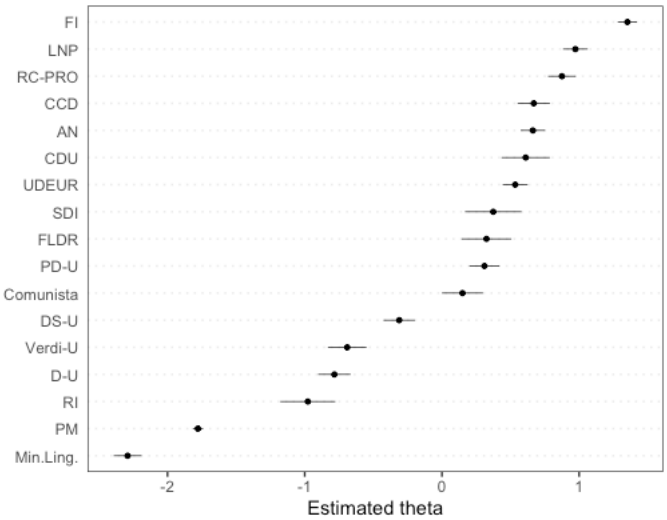
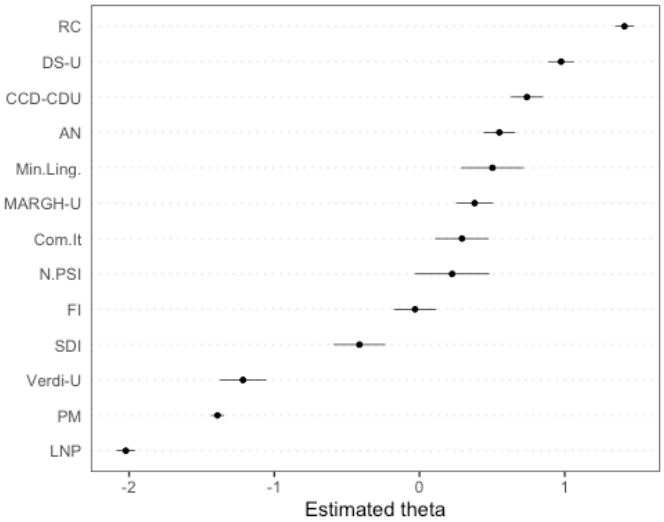
6. Amato II (2000): $Pol = 30.23, Length = 400$



PARTY ACRONYMS	
PM	Prime Minister
FI	Forza Italia
LNP	Lega Nord Padania
RC-PRO	Rifondazione Comunista – Progressisti
CCD	Centro Cristiano Democratico
AN	Alleanza Nazionale
CDU	Cristiani Democratici Uniti
UDEUR	Unione Democratici per l'Europa
SDI	Socialisti Democratici Italiani
FLDR	Federalisti Liberaldemocratici Repubblicani
PD-U	Popolari e Democratici – L'Ulivo
Comunista	Partito dei Comunisti Italiani
DS-U	Democratici di Sinistra – L'Ulivo
Verdi-U	Verdi – L'Ulivo
D-U	Democratici – L'Ulivo
RI	Rinnovamento Italiano
Min.Ling.	Minoranze Linguistiche

7. Berlusconi II (2001): $Pol = 18.09, Length = 1409$



PARTY ACRONYMS	
PM	Prime Minister
RC	Rifondazione Comunista
DS-U	Democratici di Sinistra – L'Ulivo
CCD-CDU	Centro Cristiano Democratico – Cristiani Democratici Uniti
AN	Alleanza Nazionale
Min.Ling.	Minoranze Linguistiche
MARGH-U	Margherita – L'Ulivo
Com.It.	Comunisti Italiani
N.PSI	Nuovo PSI
FI	Forza Italia
SDI	Socialisti Democratici Italiani
Verdi-U	Verdi – L'Ulivo
LNP	Lega Nord Padania

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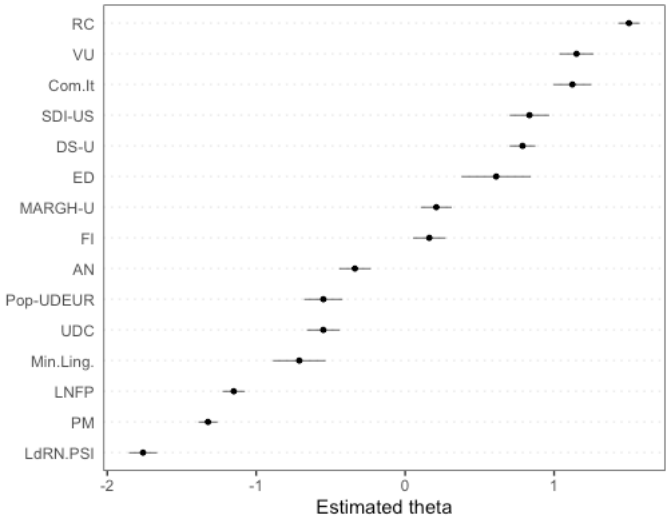
8. Berlusconi III (2005): $Pol = 19.85, Length = 374$



PARTY ACRONYMS	
PM	Prime Minister
RC	Rifondazione Comunista
VU	Verdi – L'Unione
Com.It.	Comunisti Italiani
SDI-US	SDI – Unità Socialista
DS-U	Democratici di Sinistra – L'Ulivo
ED	Ecologisti Democratici
MARGH-U	Margherita – L'Ulivo
FI	Forza Italia
AN	Alleanza Nazionale
Pop-UDEUR	Popolari – UDEUR
UDC	Unione di Centro
Min.Ling.	Minoranze Linguistiche
LNFP	Lega Nord Federazione Padana
LdRN.PSI	Liberal-democratici, Repubblicani, Nuovo PSI

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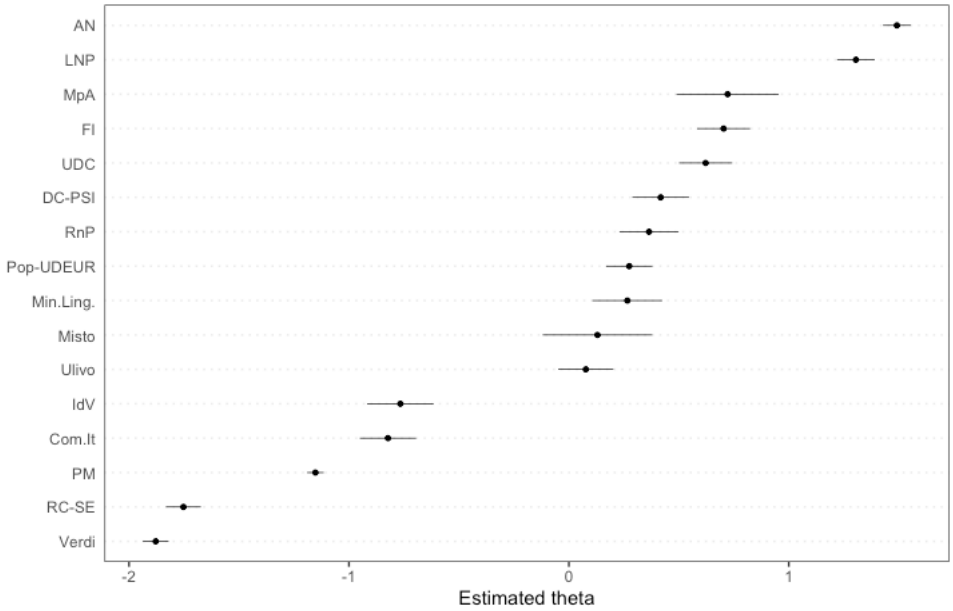
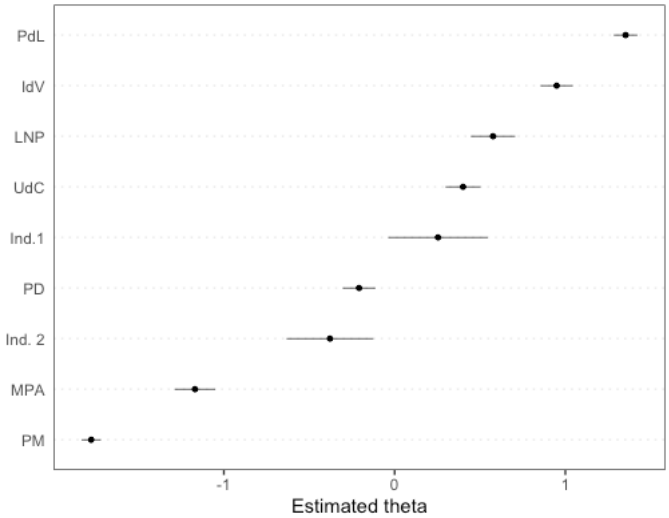
9. Prodi II (2006): $Pol = 18.44, Length = 617$



PARTY ACRONYMS	
PM	Prime Minister
AN	Alleanza Nazionale
LNP	Lega Nord Padania
MpA	Movimento per l'Autonomia
FI	Forza Italia
UDC	Unione dei Democratici Cristiani e dei Democratici di Centro
DC-PSI	Democrazia Cristiana – Partito Socialista
RnP	La Rosa nel Pugno
Pop-UDEUR	Popolari – UDEUR
Min.Ling.	Minoranze Linguistiche
Misto	Misto
Ulivo	L'Ulivo
IdV	Italia dei Valori
Com.It.	Comunisti Italiani
RC-SE	Rifondazione Comunista – Sinistra Europea
Verdi	Verdi

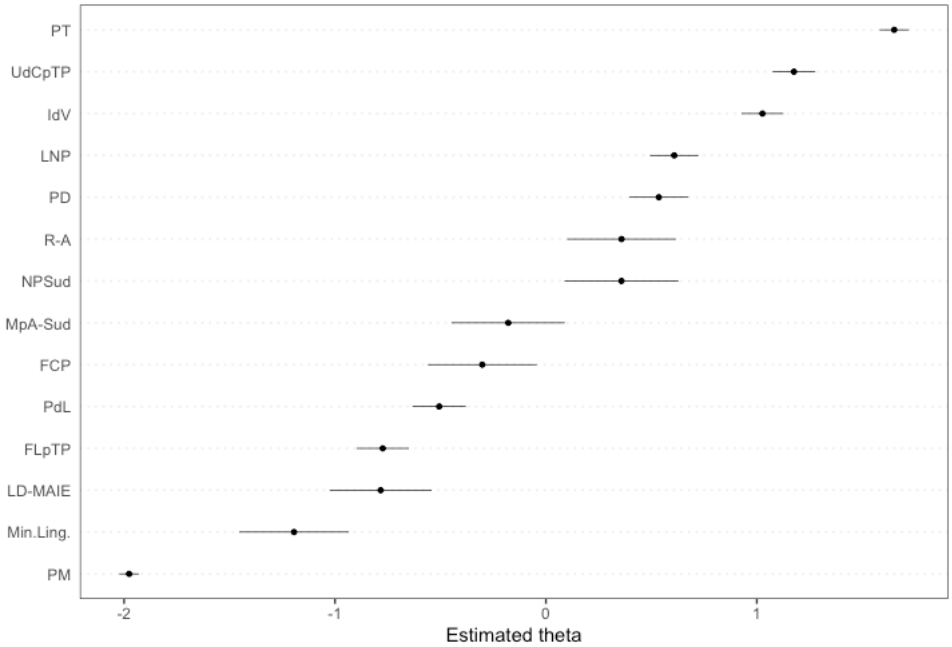
10. Berlusconi IV (2008): $Pol = 15.99, Length = 1283$



PARTY ACRONYMS	
PM	Prime Minister
PdL	Popolo della Libertà
IdV	Italia dei Valori
LNP	Lega Nord Padania
UdC	Unione di Centro
Ind. 1	Independent*
PD	Partito Democratico
Ind. 2	Independent*
MPA	Movimento per l'Autonomia

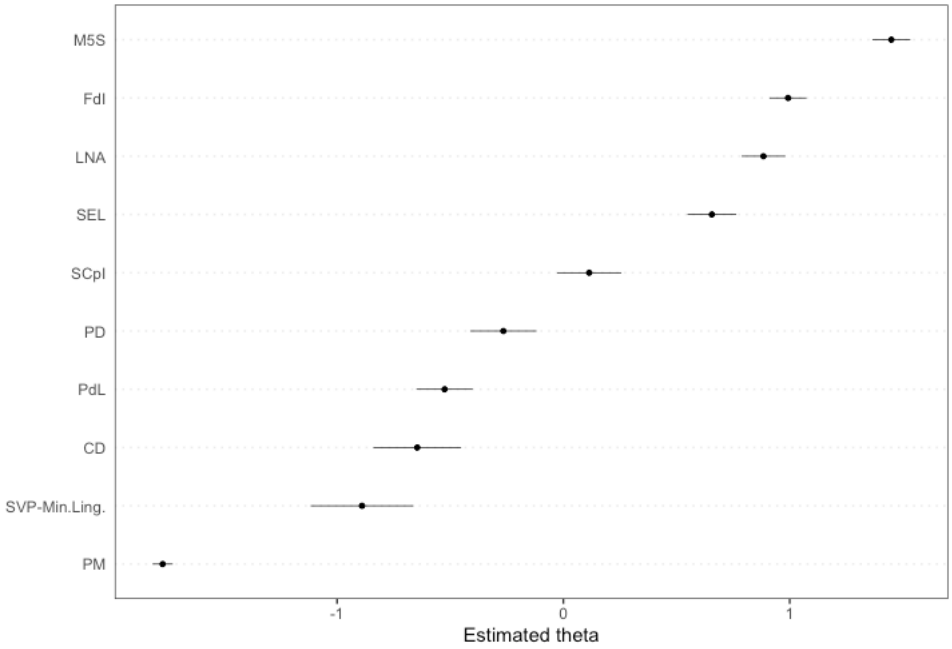
* Note that, for this confidence debate only, two independent MPs have taken into consideration, to guarantee a sufficient number of documents for the model to run effectively. Monte Carlo simulations run by Slapin and Proksch (2009) suggest that 10 documents should be sufficient for the algorithm to produce reliable estimates of party positions.

11. Monti (2011): $Pol = 27.67, Length = 401$



PARTY ACRONYMS	
PM	Prime Minister
PT	Popolo e Territorio
UdCpTP	Unione di Centro per il Terzo Polo
IdV	Italia dei Valori
LNP	Lega Nord Padania
PD	Partito Democratico
R-A	Repubblicani – Azionisti
NPSud	Grande Sud
MpA-Sud	Movimento per le Autonomie – Alleati per il Sud
FCP	Fareitalia per la Costituente Popolare
PdL	Popolo della Libertà
FLpTP	Futuro e Libertà per il Terzo Polo
LD-MAIE	Liberal Democratici – MAIE
Min.Ling.	Minoranze Linguistiche

12. Letta (2013): $Pol = 17.71, Length = 292$



PARTY ACRONYMS	
PM	Prime Minister
M5S	MoVimento 5 Stelle
FdI	Fratelli d'Italia
LNA	Lega Nord e Autonomie
SEL	Sinistra Ecologia Libertà
SCpI	Scelta Civica per l'Italia
PD	Partito Democratico
PdL	Popolo della Libertà
CD	Centro Democratico
SVP-Min.Ling.	Südtiroler Volkspartei – Minoranze Linguistiche

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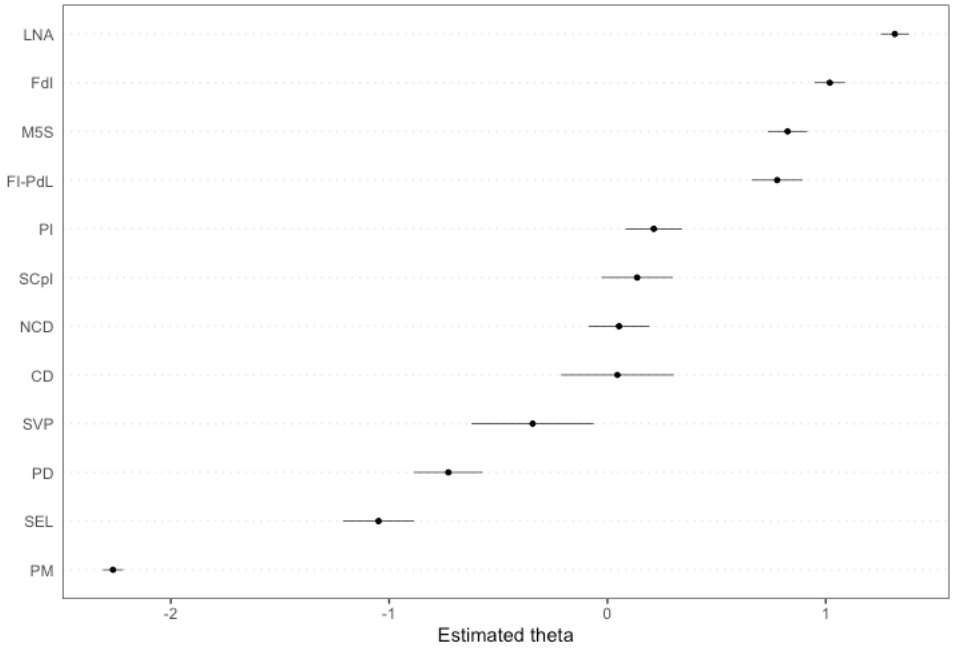
13. Renzi (2014): $Pol = 27.18, Length = 1019$



PARTY ACRONYMS	
PM	Prime Minister
LNA	Lega Nord e Autonomie
FdI	Fratelli d'Italia
M5S	MoVimento 5 Stelle
FI-PdL	Forza Italia – Popolo della Libertà
PI	Per l'Italia
SCpI	Scelta Civica per l'Italia
NCD	Nuovo Centrodestra
CD	Centro Democratico
SVP	Südtiroler Volkspartei
PD	Partito Democratico
SEL	Sinistra Ecologia Libertà

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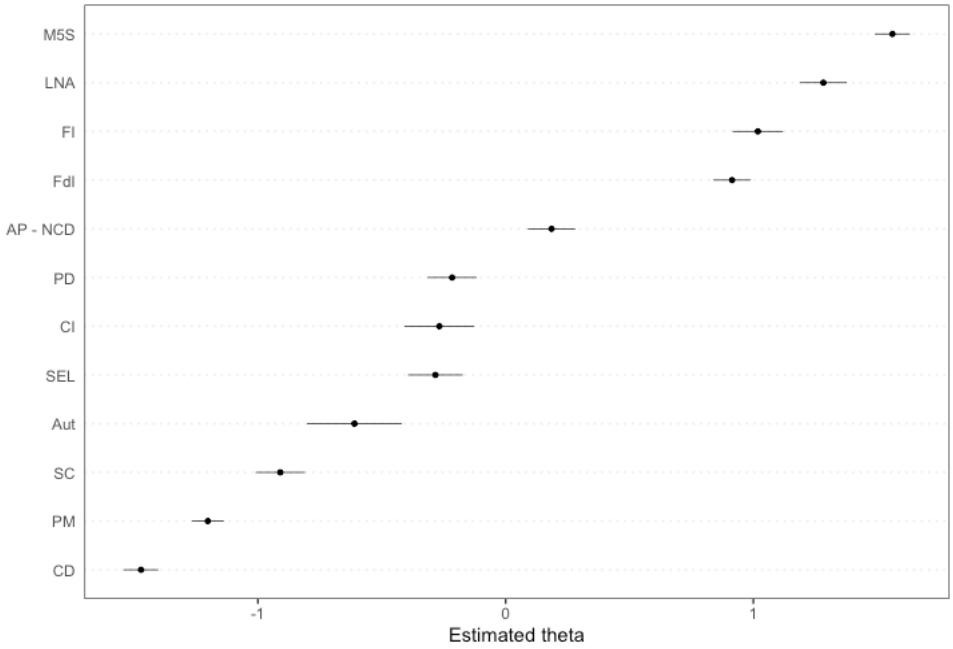
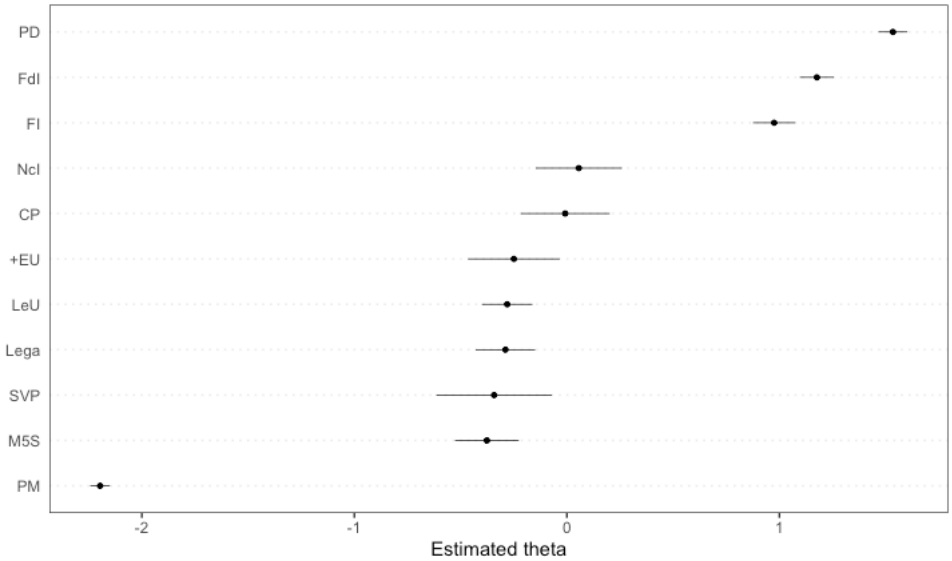
14. Gentiloni (2016): $Pol = 14.43, Length = 467$



PARTY ACRONYMS	
PM	Prime Minister
M5S	MoVimento 5 Stelle
LNA	Lega Nord e Autonomie
FI	Forza Italia – Popolo della Libertà
FdI	Fratelli d'Italia
AP-NCD	Area Popolare – Nuovo Centrodestra
PD	Partito Democratico
CI	Civici e Innovatori
SEL	Sinistra Ecologia Libertà
Aut	Autonomie
SC	Scelta Civica
CD	Centro Democratico

15. Conte I (2018): $Pol = 24.16, Length = 445$



PARTY ACRONYMS	
PM	Prime Minister
PD	Partito Democratico
FdI	Fratelli d'Italia
FI	Forza Italia
NcI	Noi con l'Italia
CP	Civica Popolare
+EU	+Europa
LeU	Liberi e Uguali
Lega	Lega – Salvini Premier
SVP	Südtiroler Volkspartei
M5S	MoVimento 5 Stelle

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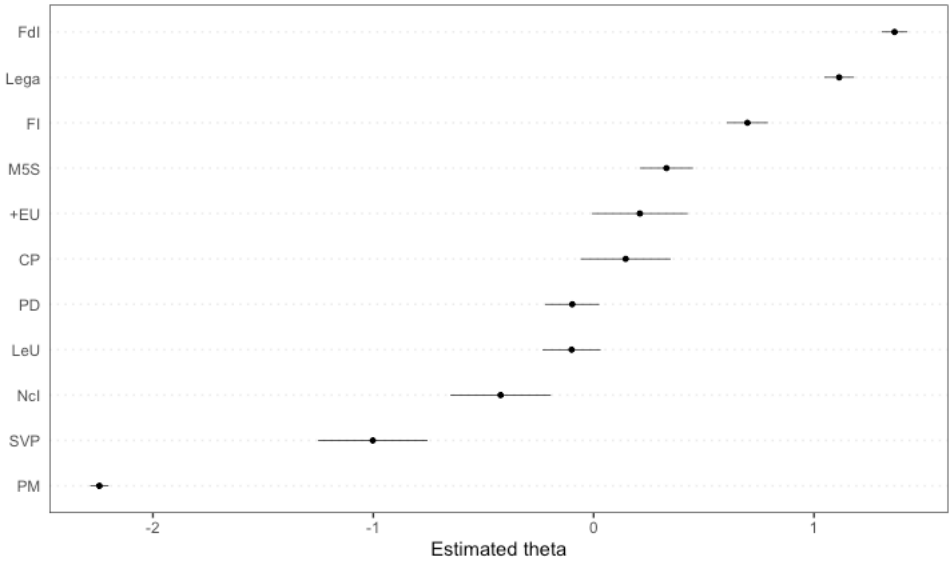
16. Conte II (2019): $Pol = 24.67, Length = 509$



PARTY ACRONYMS	
PM	Prime Minister
FdI	Fratelli d'Italia
Lega	Lega – Salvini Premier
FI	Forza Italia
M5S	MoVimento 5 Stelle
+EU	+Europa
CP	Civica Popolare
PD	Partito Democratico
LeU	Liberi e Uguali
NcI	Noi con l'Italia
SVP	Südtiroler Volkspartei

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